



Legislation, Policy and Regulation in the post-Telecommunication era: The role of OTT service's (WhatsApp) consumption and sense-making in the everyday lives of black-middle class employees of Parliament of the Republic of South Africa

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Declaration

I declare that the content of the work herein contained is my work and that sources used have been acknowledged.

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Abstract

The world has become increasingly “hyperconnected.” Hyperconnectivity refers not only to the means of communication and interaction, but it also brings people (and things) together from anywhere and at any time. In today’s world, citizens are increasingly sharing information via the so-called Over-the Top services (OTT) and virtual reality tools, rather than from the front porch. This hyperconnectivity has given rise to a globalised “168” world ($24 \times 7 = 168$), where the work day continues around the clock.

A plausible reason for the popularity of OTTs is that people no longer want to be passive ‘spectators’; instead, they want to be interactive, co-create content, discuss, modify user-generated content and connect with organisations. The above illustrates that media culture provides the materials to create identities into which individuals insert themselves in contemporary techno-capitalist societies, and which is producing a new form of global culture. But media culture is also a high “techno-culture”, deploying the most advanced technologies that are of value to business or professional life.

This study examines how black employees in Parliament interact and make sense of the text (WhatsApp) as an OTT service. An OTT is any application or service that provides a product over the Internet and bypasses traditional distribution. Services that come over the top are most typically related to media and communication and are generally, if not always, lower in cost than the traditional method of delivery.

The research analyses how and why employees use and integrate WhatsApp into their everyday lives, asks what WhatsApp means to these employees, and questions whether the use of WhatsApp is prohibited by policies of the institution or whether its usage has been ‘naturalised’. The study also looks at the key provisions of Constitution of Republic of South Africa, relevant laws and policies governing the ICT ecosystem; how the sector has evolved and is regulated and managed as well as significant policy and regulatory debates which have emerged since the introduction of OTT services.

Chapter One - Introduction

1. Why study WhatsApp?

"The word 'telecommunications,' a twentieth century amalgam of Greek and Latin roots, literally means the art of conveying information 'from a distance'. Although precise definitions differ, 'telecommunications' is broadly defined as the transmission of information by means of electromagnetic signals: over copper wires, coaxial cable, fiber-optic strands, or the airwaves" (Neuchterlein, J.A., Weiser, P. E., 2007:1-2).

'Telecommunication services' are defined in Newton's Telecom Dictionary as the art and science of 'communicating' over a distance by telephone, telegraph and radio. The transmission, reception and the switching of signals, such as electrical or optical, by wire, fibre, or electromagnetic (i.e. through-the-air) means. The definition holds two concepts. The first is the *act* of communicating, in other words, imparting and receiving information. The second is the *means* of communicating, in other words, communications infrastructure (H Newton Newton's Telecom Dictionary 18ed (2002: 733).

As telecommunication markets mature, mobile phones in Africa are evolving from simple communication tools into service delivery platforms. This has shifted the development paradigm surrounding mobile phones from one that simply reduces communication and coordination costs to one that could transform lives through innovative applications and services (Aker, J.C. Mbiti, J.M. 2010:2). In addition, citizens are increasingly sharing information via social networking and virtual reality tools, rather than from the front porch (Evans-Cowley, J. Hollande, J. 2010:379-408).

In line with this, voice and audio technologies are evolving, and text-based participation applications are starting to dominate the spectra of audience consumption. Thus, I argue that the uptake of voice telephony or mobile services has reached 'the beginning of an end' as society move decisively into to the data driven era. Societies with the highest penetration of ICTs are less affected by the issues of digital divide and will use telecommunications applications to define their lived experience in a data driven environment. One such application within this ecosystem is the OTT service, WhatsApp.

Over the last few years, social media have become highly interactive platforms through which users can 'share, co-create, discuss and modify user-generated content' (Kietzmann et al., 2011:241). A plausible reason for this popularity is that people no longer want to be passive 'spectators'; instead, they would like to be interactive (Hanna et al., 2011). This means people do

not use the Internet solely for researching new products or services, but also to co-create content and connect with organizations (Hanne et al., 2011). For this reason, organizations are increasingly interested in understanding how social media can be used optimally in their relationships with internal and external stakeholders (Lin et al., 2012).

WhatsApp is a relatively new phenomenon, with little research existing in relation to its influence on interpersonal communication in general, and between employees of South Africa's Parliament in particular. There is also little research that investigates how the use of WhatsApp can be a useful tool as part of the universal access and universal services which is premised on ICT laws and policies.

Since 1993/4, South Africa was introduced to mobile phones after decades of fixed-line telephony. However, what has emerged through WhatsApp is an innovation that has not taken long to change the face of communication. In addition, previously the majority of telecommunication revenue was derived from the provision of infrastructure and access services (voice telephony). However, the arrival of OTTs leveraged a structural change in revenues being concentrated in voice telephony to data facilitating platforms such as WhatsApp.

WhatsApp is a Smartphone application that operates on nearly all current types of devices and operating systems. The application has been on the market since 2010; the declared purpose of the developers was to replace the existing SMS platform for a system that is free of charge in an ad-free environment (Bouhnik, D. Deshen, M. 2014).

As a means of sending and receiving messages to and from individuals or groups, WhatsApp includes a variety of functions, such as text messages, attached images, audio files, video files, and links to web addresses. Over the last two years, the application has become very popular, gaining over 350 million users and is rated the most downloaded application in 127 countries (Cohavi, A.2013); everyday an average of 31 billion messages are sent (Tzuk, A. 2013). Technically, WhatsApp can be viewed as an OTT that allows people to access a great deal of information rapidly. The simple operation scheme makes the program accessible to a variety of people of different ages and back-grounds. WhatsApp enables communication with anyone who possesses a Smartphone, has an active internet connection, and has installed the application.

The overall cost of the application is very low, up to one dollar (\$1) per year (Bouhnik, D. Deshen, M. (2014). One the of the application's unique features is the option to create a group and to communicate within its boundaries. The creator of the group becomes its manager, a position that includes the privilege of adding and removing participants without the need for

approval from the group members.

Aside from this, all of the participants in the group enjoy equal rights. The application enables the participants to receive an alert for each message sent or, alternatively, to mute the in-coming alerts for the duration of 8 hours, a day, or a whole week. As of March 2015, WhatsApp had over 700 million active users throughout the world (Wikipedia, 2015).

In South Africa, the estimated WhatsApp user figure is estimated to be over 18 million and out an estimated 800 of 1300 employees of Parliament (excluding 400 Members of Parliament), at least 60% or 600 have smartphones with WhatsApp-enabled or capability (Human Resource Unit of Parliament, 2015).

WhatsApp is considered to be very easy to use: it is always on, meaning that the user does not need to log in to use it; and its real time, essentially working as a web chat. It is affordable for the 'almost of people with cell phones'. Users indicate that for as little as R 2, they can chat for a day. Having an airtime account balance as low as R 5 would result in their being cut off from voice and SMS services. Users of WhatsApp usually keep a small amount of money in their account so that they can use social networks and instant messaging platforms, which have airtime balance requirements.

1.1. Research aims and objectives

In this research I will examine the attitudes and perceptions of consumers who are the employees of the Parliament of the Republic of South Africa. By doing this I plan to reach some conclusions about the habits and preferences of WhatsApp users, explore assumptions about their consumption levels, and what the use of WhatsApp means to my research subjects, as well as their attitudes to telecommunications content/social media in general.

Through this research, I also hope to add value to the academic community especially to the field of Culture and Media Studies literature with respect to the habits of the black middle-class employees and the meaning of WhatsApp use in their everyday lives. Some of the questions which I aim to answer about the use and meaning of WhatsApp in the lives of black-middle class professionals in Parliament are:

- Is the use of WhatsApp simply a means to reduce the current cost of communication, or do users prefer this medium irrespective of the generally accepted high cost of communication in South Africa?
- Has the use of WhatsApp become a new tool associated with general courtship or office romance?
- Is there any evidence that WhatsApp has become a diversion that distracts employees from working 40 hours per work or has it become a catalyst in accelerating employee performance and adherence to company policies?
- Has WhatsApp become a catalyst or value-add in saving Parliament's monthly fixed and mobile subscription allowances which are given to employees for the purpose of communicating?
- In what ways has the usage of WhatsApp improved the performance of these employees in the execution of their social, corporate and in some cases academic everyday lives / duties?
- Is there a different meaning in the use of WhatsApp by female employees compared to what is experienced by their male colleagues/ counter-parts?
- Given the fact that it is a mobile application (m-app), what role has WhatsApp played as an m-app substitute for the Internet, which is e-mail, and the posting of letters by regular mail?
- In what ways has WhatsApp been 'accepted, naturalised or institutionalised' in the work environment?

1.2.Research design

The bulk of the study will focus on a review of academic literature and texts. The secondary approach will include qualitative research in the form of seeking to identify the use of WhatsApp in the workplace, including how WhatsApp is used and consumed by employees.

I argue that the rapid exploration of WhatsApp has given rise to a new form of ‘the public sphere’ in which people communicate, relate and share experience over these services. In other words people need not to be in the same precinct to share aspirations and their fears thanks to this new technology, WhatsApp. This is made possible because WhatsApp breaks geographical and other physical boundaries (borderless), it is universally accessible which is in line with the Constitution of the Republic of South Africa’s aim of ensuring that every citizen has a right to receive and impart information (Constitution of the Republic of South Africa, 108 of 1996 as amended) as well as other national legislative frameworks which favour affordable and accessible telecommunications services.

The general approach I adopted in this research is the active audience paradigm, looking at how these employees integrate WhatsApp into their social, cultural and everyday experiences. By “integration” I mean both their chatting habits - when and how they chat, what they chat about, and how they make sense of the information they receive from WhatsApp.

Most employees in Parliament have smart-mobile phones which are WhatsApp enabled. This makes them susceptible to chatting, updating and checking their status and they in turn integrate these texts into their own lived experiences. In this regard, I will refer to Stuart Hall. In his essay titled, “Encoding and Decoding” (1980), he clearly argues for the importance of the active audience model. Hall contends that active audiences do not see media text as neutral or innocent, but as laden with meanings, values, and biases. Many readers thus interpret a reading that runs counter to the expectations of the text’s producers (Stuart Hall, *Encoding and Decoding*: 1980).

To illustrate this point further, in the same essay, Hall argues: “So it is at the connotative level of the sign that situational ideologies alter and transform signification. At this level we can see more clearly the active intervention of ideologies in and on discourse; here the sign is open to new accentuations and in Volosinov’s terms enters fully into the struggle over meanings - the class struggle of language” (Hall, S, 1980:133).

1.3. Structure of the dissertation

Before embarking on this study, I wish to set out the motivations and particular topics of interest I will focus on. The following chapters will provide an overview and analysis of the available literature related to the topic of this research, with a specific focus on the way in which technology has impacted ‘interactivity’ practice as a communications activity. This includes an overview of

the evolution of the ICT and telecommunication in South Africa, the legislative framework, Telecommunications reform, the introduction of the proponents of active audience model Stuart Hall (1984) and Ian Eng.

Chapter One focuses on the rationale for the research problem, identifying poverty in South Africa, the acknowledgement of poverty by government policies (National Development Plan) and forms of social grants which have impacts towards forms of communication. Poverty and social inequalities are then analysed using different source and comparing South Africa with other peer-countries. Other notable topics discussed in this chapter are the definition of an ICT ecosystem, and how this relates to the theme of the study (WhatsApp).

Chapter Two focuses on locating the research study within a theoretical framework of the active audience paradigm whose proponents include the Birmingham school, Stuart Hall and Ian Eng. It deals with limitations of the active audience paradigm and methodology. Other topics include locating WhatsApp within the Constitutional goal of universal access and universal services, meaning that telecommunications content must be universally accessible, affordable and available.

Chapter Three focuses on the overview of the telecommunication sector policy and regulations, traces policy history and technological changes pre-94 to 2014. The chapter analyses the telecommunications market structure, economic growth and the outlook for the sector post-data driven era. It looks at costs to communicate in the sector.

It is also important to analyse the way telecommunication content or ICT ecosystems have evolved and been adapted from their inception, to their current state. Simultaneously, other key factors of mobile phone usage will be discussed and the manner in which communication has changed through the effects of globalisation. These areas will provide the reader with a greater understanding of the usage of WhatsApp, and will provide them with a platform from which they can start to understand how convergence affects telecommunications content usage in its different modes.

Chapter Four provides the reader with an overview of convergence as a broad-umbrella concept, and simultaneously unpacks the concept into its broader themes, namely technological convergence, economic convergence, cultural convergence and globalised convergence. These modes of convergence are fundamental to the active audience paradigm advocated by Hall.

Convergence is fundamental to the overall study of WhatsApp; however, issues like the cost of communication and the future revenues of data given the convergence of Over-The Top Services

providers to Mobile Network companies are also analysed in the chapter.

Chapter Five provides and analyses the research findings of the study, draws empirical conclusions to either prove and or disprove the assumptions of the study which also responds to the earlier questions. Chapter Six provides conclusions, as well as recommendations for further study in this area.

Chapter Two: An introduction to the history of telecommunications

2.1.Telegraph

According to Standage X (1995: viii), during Queen Victoria's reign, a new communications technology – the telegraph - was developed that allowed people to communicate almost instantly across distances, in effect shrinking the world faster and further than ever before. Furthermore, Standage noted that “today, the Internet is often described as an information superhighway; its nineteenth-century precursor, the electrical telegraph, was dubbed the ‘highway of thought’. The telegraph unleashed the greatest revolution in communications since the development of the printing press” (Standage, T.1995: viii). To this end, modern Internet users are in many ways the heirs of the telegraph tradition.

At that time, sending a message to someone a hundred miles away took the best part of the day - the time it took a messenger travelling on horseback to cover the distance. These unavoidable delays had remained constant for thousands of years, and as a result, the pace of life was slow.

However, the electric telegraph helped increase the speed of communication. It transmitted electric signals over wires from location to location that were decoded into a written message. Later the device was modified to emboss the paper with dots and dashes.

2.2.Telephone

In life it is often said that life rewards not the strongest and smartest of species but those most adaptable to change. This is also true in the telecommunications sector where inventions have always been improved upon by the arrival of different innovations which build on the previous inventions. For instance, at the height of the telegram era, nobody expected that a new innovation would arrive so soon after the telegraph had emerged. In fact, not even telegraph's own inventors or owners seemed aware. When President of the Telegraph Company, Chauncey M, DePew was quizzed about the ‘new invention’ called telephone which sought to improve telegraph experience, he said:

The Telephone purports to transmit the speaking voice over telegraph wires. We found that the voice is very weak and indistinct, and grows even weaker when long wires are used between the transmitter and receiver. Technically, we do not see that this device will be ever capable of sending recognizable speech over a distance of several miles...Messrs Hubbard and Bell want to install one of their "telephone devices" in every city. The idea

is idiotic on the face of it. Furthermore, why would any person want to use this ungainly and impractical device when he can send a messenger to the telegraph office and have a clear written message sent to any large city in the United States? (Chauncey M. DePew,1924).

Indeed, DePew may have been correct about the formative stage in the development of the telephone but he was entirely wrong about anything that followed thereafter. Initially, the telephone was seen merely as a “speaking telegraph”- an improvement of an existing technology rather than something altogether different. Even Alexander Graham Bell who is credited for this invention whilst working on a harmonic telegraph, referred to his invention as a form of telegraph in a letter to potential British investors (Decline and fall, the Victoria Internet 1995: 197). However, after several months of refinement, his new invention was ready for the world. As enthusiasm for everything electrical blossomed in the 1880s and the telephone continued its rapid growth, the telegraph was no longer at the cutting edge of technology.

By the late 1880s, the telephone was booming. In 1886, ten years after its invention, there were over a quarter of a million telephones in use worldwide. When Queen Victoria’s reign ended in 1901, the telegraph’s greatest days were behind it.

2.3.The Internet

The development of the first Internet is believed to have emerged around 26 October 1959 and has its roots in the former Union of Soviet Socialist Republics (USSR), particularly Russia which launched Sputnik as man’s first foray into outer space. Subsequent to this, however, in the 1960s, the United State of America’s Department of Defence set up an Advanced Research Projects Agency (ARPA). The Agency’s mission was to research the application of the state-of-the art technology to US defence. Around 1963 John Licklider headed up the computer research programme and pioneered the “intergalactic computer network” concept. This concept advocated the need for computer networks to link geographically distant computers to allow remote access and sharing of data.

Research by Scientific Data Systems (1966) notes that this process culminated into the Advanced Research Projects Agency Network (ARPANET) established in 1969 by Stanford University and the University of California, Los Angeles (UCLA). During this time, the web was primarily used by academia for research purposes.

In 1971, the first e-mail was sent using the ARPANET network and in 1973, about 73 % of

ARPANET traffic was on e-mail. By the mid-1980s the ARPANET had grown into a widespread educational and scientific network and it started to expand to other countries such as the Joint Academic Network (JANET) in the United Kingdom.

In 1990, however, ARPANET was decommissioned (Lewis, C. 2015), and Tim Berners-Lee proposed linking the hypertext concept with the Transmission Control Protocol (TCP) and the Internet Protocol (IP) to develop the World Wide Web. In 1993, the first user-friendly web browser was developed and launched by Mosaic.

In South Africa, some of the early Internet milestones include the UniNet launched in 1987. The true commercialisation of the Internet, however, began with the establishment of The Internetworking Company of South Africa (TICSA) at the end of 1993. TICSA was launched as South Africa's first fully-fledged commercial Internet Service Provider (ISP) albeit guided by a "voluntary, not-for-profit philosophy" (Goldstuck, 2002), more in keeping with the vision of the early Internet pioneers, based in Cape Town, and providing a 64kb international leased line link to the Internet.

By 2003, the Internet in South Africa had reached a level of maturity and development that its pioneers hardly dared dream of. Its users in 2002 numbered over 3 million, serviced by over 200 competing ISPs, ranging from backyard, shoe-string operations to the several commercial giants that dominate the sector (Goldstuck, 2004). Despite the often contradictory figures from various authors, the Internet has become a pervasive facet of both personal and commercial life, with e-mail a key means of communication and e-commerce burgeoning, Goldstuck (2002b and Goldstuck, 2004a).

According to the 2014 Statistic South Africa report, there are 40.9 % households with at least one member of the family having access to the Internet, but only 10 % of households have Internet access at home which means 30 % of those people go online at work, universities or at the Internet cafes (Statistics South Africa, 2014). The 2014 report released by social media marketing and communications agency, *We Are Social*, however, shows that the number of active Internet users in South Africa grew steadily in 2014 and accounts for 24 % more Internet users, bringing the total number up to 24.9 million (We Are Social, 2014). The 24.9 million is similar to figures released by other authors (Gilwald, 2014; Goldstuck, 2013, and Leandra, 2014).

Like the telegraph and telephone networks in their prime, the Internet allows people to communicate across great distances using interconnected networks (indeed, the generic term *internet* simply means a group of interconnected networks). Common rules and protocols enable

any sort of computer to exchange message with any other.

2.4. Technological advances in Communication

Communication is one of the most important parts of human life. Communicating with each other, passing information and understanding each other are of vital importance to survive in society. Methods of communication, verbal and non-verbal, have come a long way. The following section aims to highlight some of the most noteworthy occurrences in history to provide context for the technology we have available to us today in order to communicate.

With Web 2.0 and the Internet as a ‘new’ form of communication channel for practitioners, the rise of social media creates a new central tool. These channels are seen as either public or private paths for messages to and from various publics. According to Newsom *et al* (2004), public channels are dominated by mass or specialised media available to everyone who chooses to subscribe, tune in or sign in, whereas private channels are more commonly used by media directed to a particular chosen individual or group.

Over the last two years, WhatsApp has become very popular, gaining over 350 million users and being rated the most downloaded application in 127 countries (Cohavi, A.2013); everyday an average of 31 billion messages are sent (Tzuk, A. 2013).

2.5. Interactivity

Whereas traditional media is about broadcast (content transmitted or distributed to an audience) social media is better seen as a two-way conversation (interaction). Interactivity is commonly seen as the fundamental characteristic of social media. Flew (2008) states that ‘it is usually presented as a trait of social media that differentiates them from old media ‘which could only offer passive consumption’.

According to Lister, Dovey, Giddings, Grant, and Kelly (2003) interaction-stands for a more powerful sense of user engagement with the media text, a more independent relation to sources of knowledge, individualised media use, and greater user choice (Lister, M. Dovey, J. Giddings, S. Grant, I. Kelly 2003: 20). While many forms of media offer some form of interactivity, the exclusive character of the Internet in this regard relates to the distinctive elements of interconnectivity and interoperability.

Flew (2008) indicates that interconnectivity refers to the capability to easily connect interactions

across different networks, whereas interoperability refers to the capacity to access all available forms of information and media content using different operating systems. Interactivity can take place at numerous levels of engagement. One must be able to distinguish the three levels of interaction:

- User-to-user interaction, or the ways in which computer-mediated communication intersects with, or is at odds with, other rules, codes, and conversations of interpersonal communication;
- Para-social interaction, where online media generate new forms of user engagement with the content, which may range from the navigational practices of accessing and organising content to generate ‘hypertext’, to the immersive practises associated with engagement with rich media content such as multi-player games; and
- User-to-system interactivity, or the ways in which users engage with the devices they are using, as studied in fields such as human-computer interaction (Reeves & Nass 2002 & McMillan 2005)

2.6.Driving E-Participation

Social media encourages contributions and feedback from everyone who is interested. It blurs the line between media and audience. Participation is a concept used in three ways. Firstly, in the environment of the digital divide, ‘it refers to-inequalities in access to [social] media and the opportunity to use ICTs to participate as a user, worker, citizen, or consumer’ (Flew 2008; 31). Secondly, it identifies the distinctive properties of [social] media that make communication more open and interactive than traditional communication technologies (Flew 2008; 31).

Social media requires a rethinking of traditional sender-receiver models of communication since ‘interaction [...] demands a two-way (or multi-directional) model of communication. With the interactive features of new media, the receiver is recognised as an active participant’ (Kenney *et al* 2000).

The third point relates to the second, and concerns the matter of whether the-participatory culture that is promoted by social media is connected to wider processes of democratisation of media access and used in the context of the rise of the creative industries (Flew 2008; 32).

Most social media services are open to feedback and participation. They encourage voting, comments and the sharing of information. There are rarely any barriers to accessing and making use of content.

2.7. Community /User-generated content/user-led innovation

WhatsApp allows ‘communities’ to form quickly and communicate effectively. Communities share common interests, such as a love for photography. They form group chats with various people of common interest on political issues, treatment of workers by employers or a favourite television show.

Almost all Internet content is user-generated, as the medium by its very nature promotes interactive, many-to-many modes of communication. The phenomenon of user-generated content, however, refers specifically to the ways in which users as both remediators and direct producers of [social] media content engage in new forms of large-scale participation in digital media spaces (Flew 2008: 35-36).

Online conversation over computer or mobile phone has the ability to spread information virally across an extensive network and various media platforms. Meerman Scott (2008) calls this concept ‘the -word-of-mouse viral marketing.’ It is where people share useful and memorable content on the Web with their network of contacts, often via WhatsApp. Web content can be said to become-viral if this sharing process is continued in large numbers for a prolonged time, thus passing the information from one person to the next like a word-of-mouth chain reaction. The more the content is distributed, the higher its popularity escalates, and as a result its distribution circles out even wider (Meerman Scott 2008).

Solis (2009) remarks that it is important to realise that online conversations are not new. He states that social media and telecommunication content ‘didn’t invent conversations and it did not unearth online conversations either; nor did it provide, for the first time, platforms for consumers to share their thoughts, opinions, and advice’. Online groups and opinion sites existed since Web 1.0. And, before that, bulletin boards and forums hosted online discussions (Solis,B. 2009;01). As mentioned before, conversations were present as face-to-face meetings, rumours, gossip, letters, or whatever preferred medium was used to convey the dialogue. Consequently, it is apparent that the world has become increasingly hyperconnected in the past two decades (Kellner, 1995:301).

Hyperconnectivity is a relatively new term that was coined in response to the rapid availability and broad assimilation of entirely new ways to communicate. Hyperconnectivity refers not only to the means of communication and interaction, but also to the impact this phenomenon has on both personal and organizational behaviour (Networked Readiness Index: 2012:06).

Hyperconnectivity results from a combination of broadband expansion, the proliferation of

mobile devices and wireless access, the dominance of social media in daily life and, most recently, the use of the cloud for data and applications access. Hyperconnected communication includes not only people-to-people formats (as individuals and as members of groups and using a vast array of media), but also communication between people and machines and between machines themselves without any direct human involvement.

Hyperconnectivity breaks down the boundaries of both time and space. It brings people (and things) together from anywhere and at any time. Hyperconnectivity has also given rise to a globalized “168” world ($24 \times 7 = 168$), where the work day continues around the clock. On a societal level, the impact of hyperconnectivity can be readily discerned in neo-urbanisation, government, education, healthcare, business, workforces, and sustainability (World Economic Forum Report, 2012:19).

The multitude of connected devices consequently gives rise to the escalating growth of data and data traffic. According to the International Data Corporation (IDC), it is no longer the device or the connection that is most important-the data themselves are the new currency of our networked future. The research consultancy IDC considers that, in 2010, the amount of data transmitted around the world exceeded 1 zettabyte for the first time, while estimating that the size of the digital universe now doubles every two years (World Economic Forum Report, 2012: 29). Cisco projects that traffic from wireless devices will exceed Internet traffic from wired devices by 2015- in the hands of end-users, the future Internet looks wireless and mobile (World Economic Forum Report, 2012: 74)

In a short period of time, the hyperconnectivity phenomenon has had a notable impact on society, which authors such as John Fredette, Revital Marom, Kurt Steinert, and Louis Witters of Alcatel-Lucent recognise (World Economic Forum Report, 2012:19). However it is Stuart Hall, Ian Eng and other proponents of the active audience model who have demonstrated the knowledge of active audience theory which applies even to the new OTT services like WhatsApp. I posit further that the active audience model advocated by these proponents would arguably be an applicable theory even in the ‘yet to be developed telecommunications services, technological innovations, communications and new media of the next century.

“The negotiated code, in the context of active audience, becomes adaptive and oppositional. The adaptive and oppositional responses have always been possible, before smart phones or telecommunications content or social media. But I argue that with smart phone interactions on WhatsApp, a fourth dimension needs to be added to Stuart Hall account. This is made possible by the immediate interactivity combined with virality applications like WhatsApp. Stuart Hall’s

interesting, pathbreaking concept of the active audience has been significantly transformed by WhatsApp. The audience is more than active or interactive and transform media text. The audience becomes a hyper-active audience.

Hall argues that active audiences do not see media texts as neutral or innocent, but as laden with meanings, values, and biases. An active audience does not accept the position offered by the media and hence an active audience introduces counter hegemonic influences, in that they localise the text to reproduce their own meanings and create their own culture and lived experience.

Because the process of understanding and decoding the message is open to a range of interpretations, Hall argues that texts are polysemic. Audiences are involved in “semiotic work” in decoding the meaning of media texts; however, the ability of an individual to interpret media texts is shaped by specific social circumstances or situation in which he or she is located.

Hall then distinguishes three possible kinds of decoding or reading of media content: dominant, oppositional and negotiated. The dominant or hegemonic reading accepts the preferred meaning encoded in the texts. The oppositional reading occurs when people understand the preferred reading but reject it and decode meaning according to their own values and attitudes. Such audiences are resistant to the preferred reading normally envisaged by media providers/ creators, and institutions. Active audiences are sometimes able to resist those ideologies which serve the ruling class. They challenge these assumptions and operate beyond the confines of the preferred reading or the confines of conventional wisdom. A negotiated reading is where people adapt, rather than completely reject the preferred reading (Hall, 1980:12). The negotiated code is where the active audience becomes adaptive and oppositional.

Clearly, Hall’s model represents a shift in the debate by making the influence of media dependent on people’s interpretations and thought processes. He also provides a more dynamic account of how meaning is constructed and how people make sense of what they see, hear or read. The model emphasises the interaction between the audience and texts, as well as the social context within which interaction happens (Williams, 2003:195).

Ien Ang, another influential media theorist, also argues in support of the importance of the active audience model approach. In her article titled *On the Politics of Empirical Audience Research* (1985), Ang contends that ‘ active audiences resist or challenge media texts by acting against the dominant ideologies of the ruling class, and they do not operate within the confines of the preferred reading or confines of what everyone else agrees with.’ In this regard, Ang argues, readers are able and capable of creating their own meanings and are not just the victims of manipulation by media texts.

Text can generate multiple meanings because people make their own history and culture but under conditions not of their own making (Ang, 1991:13). This confirms the work of Karl Marx, who wrote: “Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past. The tradition of all dead generations weighs like a nightmare on the brains of the living” (Marx, K, 1852).

Chapter Three: Theoretical framework and methodology

3. Theoretical framework

Interpretative research places a particular emphasis on the ethnographic practises developed by anthropologists, where the researcher immerses himself in a particular social setting, getting to know the people intimately, observing how they organise their everyday lives and talking to them at length about how they see the world and themselves.

Interpretative researchers insist that all social knowledge is co-produced out of the multiple encounters, conversations and arguments they have with the people they are studying. A survey using closed questions-yes/no, when/ how often?-is a one-way process. To this end, an ethnographic interview is a dialogue in which the analyst is himself/ herself caught up and examined, as much as the person she/he is submitting to investigation (Bourdieu 1996:18)

Interpretative researchers argue that the organising structures of social life and cultural life are continually reproduced and modified through the myriad of activities of everyday life. These researchers claim that there can be no 'social world independent of social meaning that its members use to account it and, hence constitute it' (Filmer 1972:49).

This position is sometimes called *constructivism* since it insists that social realities are continually constructed and reconstructed through routine social practices and the conceptual categories that underpin them. The core task of the interpretive researcher is to make sense of the ways other people make sense of their own worlds by continually 'guessing at meanings, assessing the guesses, and drawing explanatory conclusions from the better guesses'(Geertz 1973:20).

3.1. Qualitative and Quantitative

The interpretative research inevitably generates a wealth of qualitative materials, from the transcript of conversation and photographs and video recordings of everyday setting to observational notes on particular situations. The aim is to develop what Geertz calls 'thick-description', detailing how people invest their world with meaning and negotiate and contest other systems of meaning.

In researching social action, however, it is not always possible to conduct a full ethnographic study. Researchers may be denied access to the settings they want to investigate, they may be allowed in for a limited time; or they may lack the time and resources to spend a sustained period

‘in the field’. In these situations they may work with a pared-down version of ethnography, borrowing the basic techniques of observation, open-ended interviews and group discussions, and using them either singly or in combination in a more concentrated way.

In this section I am going to discuss the active audience approach to the understanding of how media works. Barker describes the active audience approach as one which rejects the idea of media determinism and instead sees the audience as the active creators of their own meanings.

The concept of the active audience stresses the capability of readers and viewers to be dynamic creators and producers of meaning rather than passive receptors of the meanings generated by texts. This paradigm emerged in the early 1980s in reaction to hypodermic of audiences whereby the meanings of texts appear to be injected directly into the minds of audience without modification. Overall the active audience model paradigm represented a shift of interest from numbers to meanings, from textual meanings to textual meanings in the plural, and from the general audience to particular audiences. Within this framework, audience are understood to be active creators of meaning in relation to texts and do so on the basis of previously acquired cultural competencies forged in the context of language and social relationships (Barker, 2002: 221).

In order to do this I will be looking at the views of Stuart Hall, Ien Ang and many others who are the proponents of the active audience paradigm.

3.2.The Limits of the hypodermic model

The hypodermic theory in its pure form no longer survives. Its major weakness is that it cannot address the influence that intervene between the message from media and the opinions and attitudes that people hold. It also denies the audience any capacity to interpret, discount or distort the media message they receive and ignores the fact that people engage with media messages from the basis of their own ideas, prejudices and preconceptions. The theory presents people as passive recipient of media messages, with little or no say in how they interpret them. The message is simply “injected into” the subject who responds in a simple and observable way.

Contemporary media scholarship has moved away from examining how particular messages influence people, to exploring the nature of media audiences. Building from the cultural approach, media researchers are more interested in what audiences have to say about the influence of media in their lives. Media theory now concentrates on how audiences generate meaning, and enquiry

into media effects has been replaced by examining the creativity of audiences in the generation of meaning. Audiences interpret media messages and their ability to do so is determined by a range of individual, social, and cultural factors. They are no longer seen as an undifferentiated mass of passive recipients of messages but a multitude of different groups with their own histories, habits, and social interactions.

The notion of a captive audience forced to digest a daily dose of what media practitioners think is good for them has been superseded by a more promiscuous and powerful audience that can decide what they want to consume and when. What audiences think and what they do is more central to understanding the influence of media (Williams, 2002:190). They have sought to examine how different groups of people interpret and make sense of messages in different ways. This theory proved that people were not the passive, isolated and impressionable entities of mass society theory but individuals who could 'interpret' what they saw and heard in line with their own already established beliefs (Williams, 2002:74).

In doing so they have moved away from the notion that media have direct power to determine the interpretation and understanding people have of media messages.

3.3.Active Audience

The ability of an audience to make meaning has produced "active audience theory" which has established itself as the new orthodoxy in media studies (Williams, 2003:190). Building from the cultural approach, media researchers are more interested in what audiences say about the influence of media in their lives.

Media theory now concentrates on how audiences generate meaning, and enquiry into media effects has been replaced by the examining of the creativity of audience in the generation of meaning. Audience interpret media messages and their ability to do so, is determined by a range of individual, social, and cultural factors. They are no longer and seen as undifferentiated mass of passive recipients of messages but a multitude of different groups with their own histories, habits, and social interactions. Active audiences cannot read texts in a similar way, they are limited by their culture, society and their lived experience. For instance, what could be decoded by one radio listener may not necessarily be the same reading which has been consumed by another radio listener even if the two of them were listening to the same radio; and their understanding and interpretation will be limited by the extent of their culture or social practise and lived experience.

METHODOLOGY

3.4.Introduction

In this section I outline my methodology. The reasons for choosing to base my research on black employees is to assess the extent to which WhatsApp usage by the middle-class employee enhances service delivery performance; and whether the use of WhatsApp is gender-dependent; why employees use WhatsApp; whether the motivation to engage this text is cost-motivated or not; and whether there are other drivers and meanings of WhatsApp usage beyond what I have just mentioned. In other words, what exactly does WhatsApp offer to my research subjects? I also wanted to evaluate the extent to which employees integrate WhatsApp in their everyday lives. How are employees using WhatsApp and how are they being active in this media consumption?

I recruited my research population from different business units of Parliament after I received permission to do so from the Secretary to Parliament (StP) responsible for the entire administration and functioning of the institution (signed agreement attached, see appendix). The voluntary nature of participation by employees was explained to them individually and each of them signed the memorandum of understanding to participate in this study and each was given a contract signed between Parliament, the University of KwaZulu-Natal and the researcher. This was after the purpose, scope and rationale of the research had been explained to them and they had been assured that all information would be kept confidential and will be used strictly for the fulfilment of the academic work. Initially, I had circulated the questionnaire to 50 employees; I ended up with a research sample size of 16 employees who volunteered to participate in the project. I selected my research population using the following criteria highlighted in the table:

There are 1 389 employees in Parliament. The following table illustrates the divisions in parliament in which my participants work, their gender and race. I was interested to see if there were differences in the consumption of WhatsApp between middle-class and working class people, as some research has been done on the latter, which is alluded to in the literature review, and as the majority of parliamentary employees are non-white, my respondents all fall into the broad category of “black”.

Race	Gender	Section/Unit	Private Phone	Parliament Phone
African	Female	Committee Section	No	Yes
	Female	Committee Section	No	Yes
	Female	Committee Section	No	Yes
	Female	Committee Section	No	Yes
	Female	Caucus	Yes	No
	Female	Legal Services	Yes	No
	Female	Legal Services	Yes	No
Coloured	Female	Committee Section	Yes	No
	Female	Committee Section	Yes	No
Indian	Female	Committee Section	No	Yes
African	Male	Committee Section	No	Yes
	Male	Committee Section	No	Yes
	Male	Committee Section	No	Yes
	Male	Parliament Communication Services	Yes	No
	Male	Parliament Communication Services	Yes	No
	Male	Parliament Communication Services	Yes	No

- (a) I used black employees as classified by the constitution (Africans, Coloured and Indians) who would volunteer to participate in this non-paying project for expediency;
- (b) The principal criterion for participation was that employees identify themselves as a person who is an ardent WhatsApp user and have used WhatsApp for at least a year;
- (c) I needed both male and female black employees to determine the gender-patterns of usage and meaning of WhatsApp; and
- (d) I needed employees who have at least completed 5 years in their respective positions in Parliament, and such employees must have worked directly with Committees of Parliament.

One of the reasons for choosing this medium of communication is that it is convenient for its users and is usable whilst employees are performing their normal job requirements, and it is cheaper to use.

The methods for collecting data were based on the semi-structured interview because it abandons concerns with standardisation, control and seeks to promote an active, open-ended dialogue (Deacon et al: 1999:65). With this method the interviewer controls the discussions by referring to an interview guide that sets out the issues to be covered during the exchange. I used three types of data collection methods: Interviews, Questionnaires and Focus Group Interviews.

3.5.Interviews

I started doing my first round of interviews in July 2015, having gotten my research population contact numbers. It was a matter of calling a person and making necessary arrangements for an interview. The interviews were tape-recorded and notes also taken.

Each interview session lasted for approximately thirty to forty minutes, because I was dealing with employees who have a line function and mandate to perform in their work station or places. Where there was inadequate time for completion of interviews, some employees granted me an opportunity to conduct interviews over weekends in their homes, provided that I gave sufficient notice because I was now ‘interfering with their family and or leisure time’.

3.6.Focus Group Interviews

It was planned that a total of 16 employees should take part in the focus group discussions. Each person was notified in time and the same employees attended the focus group discussions. I divided them into two groups of 8 members and each group met on separate days. The smaller group size allowed all an opportunity for all to contribute. This sampling method allowed me to gain understanding of the groups’ social levels of understanding, and being relatively free to raise their views, perceptions and attitudes about their lived experiences in using WhatsApp.

Chapter Four: Literature Review

4. Introduction

Since WhatsApp is a relatively new phenomenon, relatively little research exists regarding its influence on interpersonal communication in general, and in parliamentary communities in particular. There is, however, much research on communities and Internet use, email lists, websites, and other forms of social media, which are helpful about online connections reinforcing or augmenting offline interactions in place-based communities (including, *inter alia*, Arnold, 2003; Carroll & Rosson, 2003; De Cindio, Gentile, Grew, & Redolfi, 2003; Evans-Cowley & Hollander, 2010; Hampton & Wellman, 2003; K. N. Hampton, 2007; A. L. Kavanaugh et al., 2007; B. J. Kim, and Kavanaugh, & Hult, 2011).

In this literature review, the use of social media is presented in urban planning and information and communication technology literatures (with some caveats) as a low cost, efficient, convenient, easy, and immediate way of communicating with people within place-based communities about issues and events (Evans-Cowley, 2010; Evans-Cowley & Hollander, 2010; A. L. Kavanaugh et al., 2007; B. J. Kim, Kavanaugh, & Hult, 2007; B. J. Kim et al., 2011; Mandarano, Meenar, & Steins, 2010; Shah, Kwak, & Holbert, 2001). An author of one such article wrote, “While writing this article one of the authors communicated with three neighbours via Facebook to plan a potluck dinner” (Evans-Cowley & Hollander, 2010, p. 397), illustrating the fact that even while working, social media platforms are used for multiple purposes! A systematic literature review was therefore conducted to deliver a broad overview of disciplines, authors and journals related to use of OTT service, and audience participation and meanings of their lived experiences, as well as to establish further theoretical links and arguments. For example, an examination of the use of WhatsApp in a South African university class registered positive feedback from students who claimed that it was an easier way to communicate with their teachers and the rest of the class, that it was productive of fruitful discourse on relevant issues in an informal environment where students could learn intimately and authentically, and that it was also fun (Bere, A. 2013). Such cooperation was felt to bridge gaps in knowledge and physical distance.

The literature review conducted also related to the Constitutional and legislative aspects of ‘universal service and universal Access’ which fits perfectly well to WhatsApp/ OTT services as a sign and the audience connotation of WhatsApp as a lived experience. There were aspects which looked at the policy implication of WhatsApp in a broader ICT policy and legislative environment.

4.1. Public spheres

Habermas theorises the ‘public sphere’ as a common meeting point for the debate through which public opinion could be formed. Through participation in such debate, citizens attempt to articulate some of society’s most pressing issues bridging the realms of the private and the state (Malila, V. 2013:31)

As Garnham notes, Habermas’s concern was to find a way “to establish ‘solidarity among strangers’ (2007: 203). For Habermas this entailed separating the private from the public, and establishing a mode of discourse of ‘rational critical debate,’ through which citizens could thrash out issues of public concern.

The public sphere could be seen as a site through which the state is put in touch with the needs of society and as a regulatory institution against the authority of the state (Habermas, 1989: 31; Garnham, 2007: 206). In the digital age, the ‘public sphere’ concept has been used to describe OTTs such as WhatsApp. In the same vein, WhatsApp has become a world-wide public sphere linking employees who are generally away from their ‘home provinces’ in search of better work opportunities in Cape Town or Johannesburg, as a platform through which provincial, business and professional conversation takes place.

Habermas’s theorisation has come under much criticism especially with regards to its perceived neglect of issues such as gender, class and age (Fraser, 1992; Negt and Kluge, 1972). It has also been criticised for side-lining the role of alternative media (Schudson, 1997; Dahlgren, 2007; Buckingham, 1997; and Gitlin, 1998), ignoring the existence of ‘counter- public spheres’ and multiple public spheres (‘sphericules’) (Dahlgren, 2007; Gitlin, 1998), disregarding ‘dissensus’ and the agency of audiences. Equally important for this study is the critique of Habermas’s assumption that the public sphere fosters rational deliberation. This assumption ignores Bakhtinian notions of dissimilarity, dialogical engagement and ‘carnival and spectacle’ (Gardiner, 2004: 30), which are also important: many people tend to use WhatsApp, for example, as a place to follow politics, or share jokes, or look for recipes, or discover links to “bizarre” sites featuring anything from lists of the 10 fattest people in the world, to descriptions of the world’s most disgusting toilets.

The concept of the alternative public sphere is also relevant here because it allows one to explore how people creatively appropriate and adapt new media such as Facebook and mobile phones to construct identities – potentially as citizens (Malila, V, 2013:31.) Another position regarding the public sphere debate is to look at virtual spaces in terms of popular culture instead of the Habermasian concept of rational debate. Popular culture is defined here in terms of its opposition to power, “the people versus the power bloc’ rather than ‘class against class” (Hall, 1981: 238).

Conceptualising WhatsApp, which allows different kinds of people to interact as ‘prosumers’ (producers + consumers) (Bruns, 2007), as popular culture offers a ‘way out’ of the theoretical impasse between critics and advocates of the public sphere.

In a study on the introduction of universal service into the broadcasting industry, drawing lessons from the Korean experience, Myeong Ho Lee et al (2005) argue that extending a universal service concept to the basic broadcasting service should take into consideration the level of convergence in broadcasting and telecommunication, digital divide, digitalization of broadcasting, the designation of the universal service obligations and the universal service funding mechanism. It is worth noting that the statement above provides a broad conceptual framework for the whole study hence the need briefly to define and discuss all these concepts.

The concepts of universal service and universal access are defined differently from country to country. Historically, these concepts have meant the availability of a telephone in every household. This has changed, as development in the telecommunications sector continues to grow beyond basic telephony. Traditionally, universal access in Africa was defined in terms of distance to a public phone. For instance, in Kenya, it was defined as a phone within walking distance, and in South Africa, it traditionally means a phone within 30 minutes’ walk (Development Banks of South Africa, 2012). In both concepts, the focus is on availability and access which today means access not only to just telephone, but access to other ICTs services, such as the Internet, computers and smart phones.

Universal access implies that everyone has access to publicly available ICT services. It implies accessing ICTs in public places. While some developed countries may aim for universal service, for now this is an unrealistic idea for most developing countries due to accessibility and affordability of services.

Universal Service “generally refers to a policy focused on promoting or maintaining universal availability of connections by individual households to public telecommunications networks” (Intven, 2000: 15). This policy targets services to individual households as compared to a district or a village. And a Universal Service Obligation (USO) “generally refers to the obligation imposed on the telecommunications operator to meet the policy objective of connecting all, or most, households to public telecommunications networks” (Intven, 2000:15) These obligations are imposed mainly when operators are being licensed. These obligations are regulatory interventions that are informed mainly by government policy whose intension is to bring services to uneconomical rural areas. And Universality, which subsumes both concepts, “refers generally to Universal Access and Universal Service” (Intven, 2000: 15). The term is used to refer to both

concepts as they tend to be interchangeable in practice. In South Africa, the Universal Service Fund is being positioned as a funding mechanism to help connect the underserved areas under the telecommunications regime. However, it has not yet been established if this fund will be applicable in a digitalized and converged telecommunications environment.

A large problem in the South African context is that of the “Digital Divide” – which, simplified, means that many South Africans cannot afford either the equipment or the data costs to be “connected”. At a macro level, Bridges (2001) describes the digital divide as a failure of development initiatives, a failure of market forces and a failure of governments, as the interplay between these key actors including the regulator has major implications for narrowing the digital divide. Whichever way it is looked at, development initiatives have been unsustainable, and market forces have been looking at areas of profitability at the expense of the underserved, while government and the regulator’s interventions have not been courageous, which has led to the widening of the digital divide while perpetuating information haves and have-nots.

Bridges (2001) has concluded that in order for people to have what may be described as "real access" to ICT, a range of factors have to be taken into consideration, including affordability, local capacity, relevant content and services, socio-cultural factors, the legal and regulatory framework, the economic environment, and political will. This view is in line with Melody’s (1997) central argument which hinges on the regulator and regulations as an enabler, a facilitator and a stimulator of network investment development.

Regarding the new convergent world in this context, many scholars agree that the process of fusion of content, service, infrastructure and end-user equipment is denoted as convergence or re-convergence (Baldwin et al, 1996; Winsock, 1998; Stobbe, 2006; Mansell,1993; Collins et al, 1995 and 1996; Murrain et al, 1996; Mansell and Silverstone, 1996; Melody, 1997; Goleniewski & Jarrett, 2006; and Tadayoni, 1999) This means that the platforms that traditionally carried these services separately and distinctly are now bringing them together on one platform. It also means that this coming together or integration is taking place at all these market segments.

Central to these definitions is an acknowledgement of the ability to bring together what otherwise were traditionally separate and distinct markets, or in other words network services to one platform. Obviously this has far reaching technological, economic and regulatory implications.

There has been optimism in the ICTs that the advent of convergence and digitalization will solve a number of access-related challenges, but this has not necessarily proved to be the case. As Bridges (2001) points out, the “digital divide is growing despite all countries- even the poorest -

increasing their access to ICT. Instead of closing the divide, the introduction of more ICTs is now simply exacerbating social and economic divides - not only between rich and poor countries, but also between socio-economic groups within countries”.

4.2.South Africa’s transition to a constitutional democracy and the importance of universal service and universal access to ICTs

The concept of universal service envisages a service which is available to everyone, under identical conditions; and offered at affordable prices (National Association of Broadcasters 2015:07). In Europe, Finland is the leader in the field of telecommunications technologies. Accordingly, Finland’s telecommunications market is the most developed in the world. Practically every household has a conventional wired telephone connection and almost every Finn out of three carries a mobile phone (OECD/General Distribution 2009:179). In 2009, France’s highest court went as far as to declare that access to the Internet among other services as a human right (Baldwin, et al 2012).

In the South African context, however, universality principles have been used mainly in the telecommunications environment. The National Integrated Policy argues that universal service is measured based on numbers of people with access to publicly available ICTs such as lines per 100 people or telephone access within 10 minutes’ walk (National Association of Broadcasters 2015:07).

Universality principles in South Africa have been used in the telecommunications environment to bring about services to areas that would not otherwise receive those services. In the ECA there are specific provisions that provide for universal service and access in telecommunications, but these are not automatically extended to broadcasting (Electronic Communication Act of 2005). The inclusion of telecommunication services in the process that led to the formulation of definition of access can be traced back to the July 2001 colloquium (1) where it was argued that, “access should be defined within the South African context at this time in its development, and should be limited to telecoms. Access is presently defined as access to fixed and mobile, private and commercial mediums of communication (including public switched telephone (PST)-access within a reasonable distance) including telephony and data services tailored towards the need of users” (ITU, 2001). The advent of convergence and digitalisation poses a new challenge as two historical separate services are brought together. The inclination, even after the promulgation of

1 ITU(2001) Regulatory Implications of Broadband Workshop- Case study: Broadband the case of South Africa. ITU New Initiatives Programme-2-4 May 2001. Geneva.

the ECA, has been to concentrate on telecommunications rather than broadcasting.

The reality about convergence all over the world, is that it is dependent on technological innovation and demand for services. Policy, legislation and regulations tend to be reactive. The same has been the case in the South African situation. It will always be difficult for the policy makers and the regulator to be proactive in a converged environment.

Others have argued that convergence evolved without any policy guidelines: instead, as a knee-jerk reaction, the Ministry of Telecommunications and Postal Services and the Legislature formulated the Convergence Bill which later became the Act (Gilwald, 2012; Stuck; 2013 and Abrahams, 2013).

What is still missing is a broad policy framework that should have been the starting point in order to inform the legislation making process (although since 2014, great strides have been made with the appointment of the ICT Policy Review Panel and Broadband Council respectively). What is now a reality is that an electronic communications policy will come last. This study might assist that process of policy formulation by creating a platform not only for policy making but also for further research, especially with respect to the cultural aspects of a negotiated meaning of WhatsApp users.

4.3.South African Telecommunications Policy: rights and access

South Africa is a constitutional state and thus the constitution of the Republic is the supreme law of the country. All laws in South Africa should be consistent with the constitutional framework. Although the country has three spheres of government - national, provincial and local - the regulation and policy directive of telecommunications is mostly handled at national government level.

Before the advent of democracy in 1994, the governing party, the African National Congress (ANC), published what became the first policy framework on telecommunications called the Reconstruction and Development Programme (RDP). This policy noted that “Telecommunications is an information infrastructure and must play a crucial role in South Africa’s health, education, agriculture, informal sector, policing and safety programmes...The telecommunications sector is an indispensable backbone for the development of other socio-economic sectors” (ANC, 1994:34). This policy has been analysed by various academic and industry experts to have included references to universal affordable access to telecommunications; to develop a modern telecommunications and IT system; and the formation

of a strong telecommunications manufacturing sector (Abrahams and Goldstuck, 2012:136). This policy would affirm what the Bill of Rights in the Constitution and various laws hoped to achieve within the telecommunications space.

In recent times, the South African telecommunications landscape has indeed played a significant role in the development of the country. Emerging trends in the sector have seen ICT infrastructure being rolled out at local and provincial levels to augment private capital initiatives. Telecommunications is an essential need in the social, academic and business spheres. It is perhaps on this premise that telecommunication policy and regulation is given serious attention both internationally and nationally.

The Bill of Rights in the Constitution is the cornerstone of South Africa's democracy. This is where the right to freedom of expression, in particular freedom of speech and access to information derive their protection from. Chapter Two of the Constitution, especially section 16(1)(a) and (b) of the Bill of Rights, guarantees individual rights to access to information, freedom of the media, and freedom to receive or impart information or ideas (Constitution of Republic of South Africa, Act No.108 of 1996).

In line with this study of WhatsApp, the right to freedom of expression has been interpreted to mean not only the right to speak and the right to hear speech but also the right to have access to the means by which to communicate (Thornton, 2006) (2). For this right to be freely exercised by users, telecommunication coverage must reach everyone throughout the country in line with the Constitution's other objectives of ensuring that telecommunications services are accessible, affordable and available (Constitution of Republic of South Africa, Act No.108 of 1996). The "means by which to communicate" refers to a wide range of telecommunication content and services including WhatsApp.

In addition to what the Constitution prescribes, there are a myriad of legislations and government policies that advocate for interactivity and public participation. In this regard, the 1996 White Paper on Telecommunications states: "The state recognises the central importance of access to telecommunications to the achievement of its economic and social goals. Affordable communications for all, citizens and business alike, throughout South Africa, is at the core of its vision and is the goal of its policy. The challenge is to articulate a vision that balances the provision of basic universal service to disadvantaged rural and urban communities with the delivery of high-level services capable of meeting the needs of a growing South African

2 See *TS Masiyiwa Holdings (Pvt) Ltd and Another v Minister of Information, Posts and Telecommunications* 1998 (2) SA 755 (ZS) at 767-8;

economy” (White Paper Policy on Telecommunications, 1996:1).

It must be remembered that an OTT service like WhatsApp is enabled through smartphones and other mobile phones that are compatible using all the different mobile phones’ networks as it piggybacks on those networks. Historically, however, access to ICTs in South Africa resembled the political history of the country where inequalities and racial segregations were institutionalised as majority of Blacks Africans in the country, mainly in rural areas were not connected due to the past laws which also negatively impacted the delivery of ICT services.

As such, the past discriminatory laws fitted perfectly to the arguments that have been advanced by some authors who have argued that, “media operate in societies in which power is unevenly distributed between individuals, groups and classes and since media are invariably related in some way to the prevailing structures of political and economic power, several questions related to power and control arise (McQuail, 1984: 69), and Eldridge argues that “media also occupy space which is constantly being contested, which is subject to organisational and technological restructuring, to economic, cultural and political constraints; to commercial pressure and to changing professional practice. Thus, the changing contours of this space can lead to different patterns of domination and agenda setting and to different degrees of openness and closure, in terms of access, patterns of ownership available genres, types of discourse and range of opinions presented” (Eldridge, 1993:20). Both scholars’ points are relevant in the context of the changes that have taken place in South Africa.

The policy processes that were conducted post-1990 involved participation by liberation movements after their banning, civil society, and the business sector as well as the State (Ngcaba, 2012:12). It represented the first truly consultative policy development and formulation in South African history around telecommunications. In addition, the ICT policy developed in the early 1990s was developed within the context of ICTs being dominated by voice communications, with mobile still in its infancy, and a dominant fixed-line incumbent. Most developing countries including South Africa were still planning, debating and constituting regulatory regimes. These changes were driven by allowing each village or community to have access to a dial tone.

There was a commonly quoted statistic at the time, that there were more telephones in Manhattan than on the entire African continent (Gadaga. et al, 2011:vii). This was based on the penetration of telecommunications in Africa being below 1%. A country like Nigeria had less than one million telephone lines. Most telephones in South Africa were in white areas as a result of Apartheid planning and resourcing. In most rural areas there were no phones at all, with the exception of white-owned farms that had what were called party lines, famously known as “Nommer

Asseblief'. *Nommer Asseblief*, literally translated as "Number Please", was the title of an iconic 1970s Afrikaans sitcom, which was intended to give a light hearted reflection of life in small towns in South Africa, but its contemporary cultural interpretation is an expression of the backwardness of communications and television broadcasting in South Africa under Apartheid government (Bentley et al, 2009:78).

4.4. Broadcasting

Telecommunication services in the Apartheid era were characterized by the near monopoly of the state-owned company Telkom. In 1993, the political groupings represented at the Kempton Park negotiations on South Africa's future constitutional dispensation agreed on more than the provision of the Constitution of the Republic of South Africa Act ("the Interim Constitution"). They also agreed on two other pieces of legislation that, together with the Interim Constitution, were critical to ensuring that the transition from Apartheid to democracy took place. These Acts were the Local Government Transition Act and South African Telecommunications Regulatory Authority (SATRA).

These Acts were separate from the Telecommunications Act; they were enacted when broadcasting and telecommunications were regulated separately. Restructuring telecommunications was seen by all political groupings as essential for the success of the 1994 elections. Prior to the telecommunications sector reform in South Africa, the broadcasting and telecommunication sectors were regulated primarily by the provisions of the Radio Act of 1952 and the Broadcasting Act of 1976. These two statutes gave government complete autonomy over all telecommunications and broadcasting activities in South Africa.

In 1996, the Radio Act of 1952 was repealed by the Telecommunications Act of 1996, which came into effect on 01 July 1997. The Telecommunications Green Paper and White Paper led to the passage of the Telecommunications Act No. 12 of 1997, which fundamentally transformed the sector. This Act was enacted to make provision for the regulation of telecommunication activities other than broadcasting, and to establish an independent sector regulator, the South African Telecommunications Regulatory Authority (SATRA), in line with the model of developing a transparent and certain regulatory environment for investors and consumers, and to contribute towards building a stable and well-functioning market.

In 2000, SATRA was merged with the broadcasting regulatory authority, the Independent Broadcasting Authority (IBA), to form a single electronic communications regulator, the

Independent Communications Authority of South Africa (ICASA). This regulator was established according to Section 3 of the Independent Communications Authority of South Africa Act (“the ICASA Act”). According to this Act, ICASA is required to perform the duties and exercise the powers that had been given to the previous regulators of broadcasting and telecommunications.

In 2006, the entire South African telecommunications regulatory landscape was swept by tremendous change: the Electronic Communications Act, 2005 (“the ECA”), borne out of the Convergence Bill and replacing the Telecommunications Act and some parts of the Broadcasting Act, introduced a number of positive changes to the respective roles of the regulator, ICASA, and the Ministers of Communications as well Telecommunications and Postal Services.

- ICASA no longer has to act in accordance with the Ministerial policy directions; however, it must consider these;
- ICASA is free to make regulations and no longer requires these to be approved by the Minister. ICASA must just inform the Minister about these regulations;
- ICASA is in control of the licencing process except that it may not issue an invitation to apply for an Individual Electronic Communications Network Service Licence, unless this is done in accordance with a Ministerial policy direction; and
- In respect of the radio frequency spectrum, the ECA requires that the Minister must approve the national radio frequency plan developed by ICASA.

ECA, in repealing the Telecommunications Act, had done away with the divergent powers of ICASA. ICASA is now free to move away from Ministerial policy and policy directions.

4.5. WhatsApp in the legislative and policy environment governing ICT

The 1996 White Paper on Telecommunications envisioned a policy environment in which the telecommunications sector balanced the provision of basic universal service to disadvantaged rural and urban communities with the delivery of high-level services capable of meeting the needs of a growing South African economy. The White Paper sought, amongst other things, to provide for a new market structure that orientated the sector towards accelerated development and universal service, as well as take into account technological and international trends (White Paper Policy on Telecommunications, 1996:4).

One of the key objectives of the Telecommunications Act of 1996 (repealed in 2006) was to encourage investment and innovation in the telecommunications sector. The market structure entailed a period of exclusivity for Telkom. After this exclusivity period, the White Paper

envisaged an environment whereby various telecommunications market segments would be liberalised in a phased process, put into motion and overseen by the Regulator. This policy provision enabled the licensing of the Second National Operator in the fixed-line market, and three mobile operators. In terms of the ownership, investment and financing, the state retained a majority shareholding in Telkom and shareholding in Vodacom.

The White Paper sought to address issues of transformation in the sector through the economic empowerment of historically disadvantaged individuals, to ensure that meaningful participation in all aspects of productive economic activity was achieved (White Paper Policy on Telecommunications, 1996:9).

Amongst, others, the Act compelled all stakeholders in the industry to prioritise universal access of ICT services to citizens. Subsection 2 asserts that it is the purpose of the Act to:

- Promote the universal and affordable provisions of telecommunications services,
- Make progress towards the universal provision of telecommunications services, and
- Encourage ownership and control of telecommunication services by persons from historically disadvantaged groups (Telecommunications Act No.103, 1996: 10).

Therefore regulations published by ICASA, the establishment of a new licensing framework, as well as the promulgation of the principal legislation on Broad-Based Black Economic Empowerment (BBBEE) gave effect to the policy imperatives of broadening equity ownership, employee share ownership schemes, creating opportunities for meaningful employment and management, the effective promotion of entrepreneurship, licensing opportunities and procurement and set aside policies (Independent Communications Authority of South Africa Act, Act No.13 of 2000:232).

At the same time, the issue of universal access and universal service were fundamental policy issues addressed both by the White Paper on Telecommunications and the Act. The repetitive mention of universal access to telecommunication services is a pre-eminent object of the telecommunication law (Dagada et al, 2011:37).

The Telecommunications Act also provided for the establishment of the Universal Service Agency (USA). The aim was to promote universal access espoused by to the telecommunication services. This meant the USA has a monitoring role as well, and is required to survey and evaluate the extent to which universal access has been achieved. Capital and operational costs of the USA are financed by Parliament.

In relation to other fundamental issues, the White Paper also sought to address the manner in which the cost of services is determined through tariff regulation, as this aspect was critical to the achievement of universal service. The key requirement was to create a balance between affordability and the need to expand and upgrade the network.

In 2005, USA became the Universal Service and Access Agency of South Africa (USAASA) as a consequence of the Electronic Communications Act. Chapter 14 of the Act made provisions for the continued existence of the agency (ECA No.35 of 2005).

In this regard, the creation of USAASA was aimed at, inter alia, providing access points for communications infrastructure and services. At the same time it has been argued that the USAASA has failed dismally to increase penetration of fixed-line telephony and increase Internet access in underserved areas (Dagada, R et al 2011:39). More recently, the 2015 Integrated ICT Policy Review and Recommendation Report has urgently called for the dissolution of USAASA and the establishment of a Fund Manager (ICT Policy Review: Recommendations Report 2015: 167). It is interesting to observe that only the mobile networks have some remarkable presence in underdeveloped areas.

4.6. Some Economic Observations

This is undoubtedly one of the reasons why mobile phones have far greater reach in South African currently than landline telephones. Where prices are concerned, termination rates went down from R1.25 in 2009 to R 0.20 in 2014, which means that there was 84% reduction. According to a presentation by ICASA on 21 Years Seminar on ICT in Parliament, on the retail front, in 2005, the estimated cost of calling a cell phone was R 3.20 and in 2014, it estimated to be around R0.60, a reduction of 81 % (ICASA, 2015, p8, 21 Years Seminar).

The 2013 report by StatsSA's General Household Survey found that there is high access to telecommunications services, with only about 5% of households that do not have either a mobile or fixed telephone. According to this survey 81, 9% of households had access to at least one cellular phone, while 12,9% of households had access to both a landline and a cellular phone. Only 0,2% of households had only a landline (StatsSA, 2013).

Despite recent reductions to both fixed and mobile data prices, broadband pricing remains a barrier to exponential growth in broadband use. At the same time, the cost to call has been reduced from 1994 only on interconnection rates. Mobile prices dropped via a mobile termination rate (MTR) reduction glide path established by the regulator, ICASA with the final MTR reduction taking place in March 2013 as well as the new MTRs commenced in 2017.

However, the MTR is still far from cost, and the cheapest mobile prices in South Africa still lag behind countries where the regulator has enabled competitive pricing pressure by enforcing a cost-based MTR. The two small mobile players, Cell C and Telkom Mobile, have finally been able to put pressure on incumbents Vodacom and MTN, forcing down prices and stimulating innovative product and price offerings.

ICT Analysts argued that, “although South African voice prices are finally coming down (largely via the MTR reductions), a declining use of voice services and growth in data use are having a significant impact on the development of the mobile market. “ In addition, “the competitiveness of the ICT market can no longer be understood in terms of distinct voice and data segments. Voice and data services need to be understood in relation to each other if one is to understand the changing nature of business and impacts on consumer welfare. It is becoming increasingly difficult to distinguish between voice and data subscribers: airtime is increasingly converted for data use; data services are increasingly used to make voice calls, through voice over IP (VoIP); and paid-for SMSs are giving way almost entirely to free instant-messaging services (Gilwald, 2015). Therefore high cost of communication has constrained investment in South Africa as a regional business hub: in particular, investment in large-scale business process outsourcing and similar job-creating industries has suffered.

4.7. Universal Coverage of Mobile Networks

On coverage, ownership of mobile phones continues to grow. Claims by mobile operators of penetration rates of over 100% reflect the number of SIMs in the market, a significant portion of which are duplicates, in addition to the SIMs used for non-human activities such as satellite tracking. Individual mobile phone ownership stands at 86% of the adult population (15 years or older). There are now few differences, in use of basic voice and SMS services, between mobile phone users in urban and rural areas, or between those at the top of the pyramid (ToP) and those at the base of the pyramid (BoP). The continued uptake and increased use of mobile phones have been stimulated by the availability of smarter devices at lower cost and by reductions in the cost of services. The estimated geographical coverage in South Africa is believed to be approximately 78%.

In South Africa, the fact that SMS, call and data costs are high has driven people at the BoP to social networks, which enable them to send messages to friends, families and colleagues at a fraction of the cost of the other types of messages. This has played out in large numbers of

subscribers on wider ICT ecosystem platforms such as Mxit, Facebook, WhatsApp, WeChat and so on. Research ICT Africa (RIA) monitors prepaid mobile prices across Africa quarterly by establishing the cost of a communication basket for all prepaid products and for all telecommunications operators/firms in a country (the basket is based on the Organizational Economic Development (OECD) 40 call/60 SMS basket), and confirmed in 2013 that 18 African countries still score better than South Africa in terms of a reflection of what most people in the country are paying based on the dominant operator (RIA, 2013).

In a seminar paper entitled, ‘Building a Digital Life for All South Africa’, it notes that South Africa is the third most capable African country when it comes to leveraging the benefits of technology to improve the lives of its citizens and grow its economy, but that South Africa ranks 72nd out of a total of 142 countries surveyed, with a national readiness index (NRI) of 3.9 out of 7. In addition, in an OECD study on mobile cost based on a basket of services, South Africa was ranked 30th of the 46 countries surveyed in terms of mobile telephony cost (RIA, 2013).

4.8. Telecommunication cost comparisons with international indices

South Africa has effectively lost its status as continental leader in terms of the global ranking indices produced by the World Economic Forum and the International Telecommunication Union. For instance, the Network Readiness Index (NRI) of the World Economic Forum, 2013, shows that South Africa currently ranks 76th which is 6 places down from the 2014 reports in the world, out of a total of 144 countries. This study measures a country’s propensity to exploit opportunities offered by ICT, and the impact of ICT on the competitiveness of nations. South Africa also continues to trail behind other comparative countries such as Chile, Turkey, Rwanda, South Korea and Poland. Despite the ICT sector’s phenomenal growth in the past two decades, the cost of communication remains relatively high. For example, where South Korea and South Africa were comparatively placed on international telecommunications Union ratings 20 years ago, South Korea is now a global top player (Gilwald, 2011). Yet there are more mobile phones in South Africa, proportionally, than in the United States, which are used not simply for social purposes, but are viewed as a broader commercial resource (Digada, et al, 2011: viii).

The cost of South African telecoms, however, has been the subject of debate for some time. Some research argues that the cost of communication is driven by the lack of genuine competition and the regulator’s intransigence on the issue has allowed telecoms companies to profiteer in grand scale over the years (Mahlong, 2012). This is important given the reality that the country is a two-nation society: the privileged business actors and elite civil servants, as opposed to the third-world (predominantly black, poor, rural and unemployed). This latter group, in tens of millions, is vulnerable and simply cannot afford the cost of telecommunications services. The steep cost of

telecommunication negates the spirit of universal access to this community. It also tends to be one of the reasons why the middle classes use internet and wireless connections in their workplaces, for private use.

In the past the mobile market was perceived as an elite service for the corporate sector and the rich, although it was already evident that its reach had extended way beyond these segments of the population. For example, the mobile market experienced exponential growth levels following the introduction of pre-paid services and the intention of new entrant bidders for cellular licenses to service the mobile market. This in turn prompted the regulator to pay attention to access and pricing issues.

It may also be of significance that the provision of communications services at reasonable prices and the promotion of consumer interests appears fairly late in the list of objectives of the Electronic Communications Act (Act No.36 of 2005 as amended) as the South African telecommunications market is characterised by high prices across a range of services, from mobile voice services to leased lines and broadband. Furthermore, in his first State of the Nation Address (SONA) in 2009, President Jacob Zuma lamented the high cost of communications, which the then Minister of Communications, Simphiwe Nyanda, immediately vowed to bring down (South African Sector Performance Review 2009/2010: 14).

Whilst pricing is the key indicator of the competitiveness of the market, in South Africa there is very little pricing transparency to allow for any meaningful assessment by consumers or even the regulator of mobile communication prices. Operator tariffs are filed with the regulator, ICASA, without any process of assessment or objection and lowest price tariff calculators, set up by regulators and consumer groups. While these mechanisms exist in countries such as the United Kingdom, this is not yet the case in South Africa. With more than 100 voice products currently on offer in the market, no South African consumer can readily determine the best-priced package for her/his purposes (Gillwald, 2012).

Prepaid mobile was initially offered as a niche market service, and has gradually made its way to the centre of the picture, especially for developing country markets. For Africa, the cost of connection for prepaid is dramatically lower than a fixed landline (ITU: 2012). In South Africa, mobile and prepaid mobile phones provide the only available point of network access; the issue of quality of services become paramount, as users risk being trapped in a lower quality stand-in for fixed-line access (Melody, 2003: 13). Even as new information access and mobile Internet services are deployed, these tend to require subscription-precluding participation by prepaid users. Thus the expectation of universality of services moves beyond the physical infrastructure

and technology, to include a level of quality, content and human capabilities (Mahan, 2004:68).

Prepaid is very much the informal sector of the telecom: it has been an elusive market segment, and it remains difficult to document exactly how pervasive it is, beyond very much so. For example, who has access to telecoms services? The owner of a SIM card? Someone who has made a call in the past month? Someone who has received a call or SMS? Someone who has recently used their mobile cell phone to buy a can of Coke? Someone who owns a handset (or at very least a SIM card), but who perhaps has not had prepaid charged up for over a months, six months? Someone who can receive a call, but cannot afford to charge up their prepaid card?

In light of the emerging new technologies such as WhatsApp, there is a need to assess access and reach of services (Mahan, 2004:71). The ITU Report on Mobile (1999), stated that when you dial a mobile number, you call a person - not a place. Accordingly, indicators need to reflect this kind of change.

While access to the telecommunications network is crucial, with prepaid mobile there is no obligation for a relationship to be established with the provider for the purpose of credit rating (for example, for the future migration to post-paid services). The point is often made that prepaid phones allow users to manage their communication spending (3). Unlike the prepaid and post - paid users, WhatsApp users, whether they are prepaid or post-paid, save automatically by communication through the platform (whether it is texting or voice calls).

In addition to the cost, WhatsApp has different innovative ways to ensure user loyalty. For instance, WhatsApp announced on January 2015 that a new Sim card for mobile phones is promising its users unlimited access to WhatsApp in 150 countries and across 400 network operators (TechCentral, 2015). In addition, the unique WhatsApp Sim, is part of its long-term plan to foray away from smartphones into Web-based messaging on desktop Personal Computers and other devices including laptops. To get the Sim card, users pay an upfront fee of €10 (or €5 in some markets). Other than that, the service is completely free for a year after purchase. There are no caps on data usage (TechCentral 2015).

Unlike WhatsApp users on prepaid, for normal prepaid users, the individual bears all risk and potential detriments of higher per call charges, up-front investment in future calls, damage to card which many invalidate its use, ownership and maintenance of handset, lower quality of services;

3 Competition / termination rates in the sector has drastically brought down prices, which perhaps helps this management, however, the piece of sending SMSs and MMs has not dropped compared to what WhatsApp text costs

and frees the services provider from investment in billing and collection (McIver, 2003:71).

To summarise, prepaid mobile is currently fulfilling a much needed extension of the telecommunications services through voice and SMSs, but the cost, associated with quality of network services in different modes of accessing, must be assessed to deal with areas where there is still no access to such services. However, the value that WhatsApp brings both in cost, accessibility of its services to both the sender and receiver; audio as well as audio-visual services is becoming a pull factor to all its users, most of whom do not have a lot of money. Unlike an SMS, the WhatsApp text can be part of a larger network in which they can be anywhere and communicate in real-time with friends and family while performing official duties.

4.9.Evolution from voice to data

Operators bring a number of key assets which many independent OTT players cannot offer; an existing billing relationship; a trusted brand; extensive customer insight; and a considerable subscriber base to market to. Moreover, operators are better positioned than OTTs to form partnerships with other operators when developing OTT apps, as exemplified by ‘Joyn’, the Rich Communication Suite (RCS) services including multimedia call and messaging options offered by Deutsche Telekom, Orange, Telefonía, Vodafone, SK Telecom and others (BEREC, 2015: 3).

As OTT companies like WhatsApp, Skype, and Google encroach on the telecom industry, operators need to find ways to counter the threat. That means defending their territory against these new players or finding ways to work with them. However, doing so requires that telecom companies put to use their distinct assets and capabilities: their ubiquitous fixed and wireless networks, their millions of customers, and the fully integrated customer data, logistics, and other services they can offer. This strategy requires three distinct steps.

- The first involves developing advanced connectivity services in order to defend their core networking and infrastructure business.
- The second requires that they create new services such as data analytics and billing, which they can sell to businesses in different verticals.
- The third, and the toughest of all, is to develop new apps and other services and offer them directly to consumers (BEREC, 2015: 3).

None of these options are exclusive, operators need to consider and experiment with all of them. In all cases, the key is not for operators to fight against the OTT players but rather to find and develop the profit pools where their particular capabilities offer the greatest chances of success.

On pricing, when a novel offering is charging significantly less for a similar service, this forces the more established players to rethink their business models and relook at how best to capitalise on these new elements of the communications equation. When the price per voice minute might be 99c from a traditional mobile operator and OTT data calls set people back less than 10c per minute, consumers will naturally choose the more affordable option. And the scenario is similar within the messaging space, where services like Facebook Messenger and WhatsApp allow people to chat back and forth at a fraction of the cost.

According to director of execMobile, Craig Lowe, the introduction of these offerings and the speedy growth in their popularity is rapidly eroding core voice revenues. "Over-the-top services are threatening service providers' revenue streams by effectively negating the need for consumers to make use of expensive, high-margin traditional telephony solutions"(Craig Lowe 2014: 20). As is the case with responding to any new market disruptor, telecoms companies simply have to adapt.

According to the chief strategy officer of XON, Alex Laing, the likes of WhatsApp and WeChat have cannibalised a very profitable market for mobile operators but there was a time when it was SMS that was cannibalising revenue from voice services, and he continues to argue that this situation leaves operators with two options; "Either they compete by making voice calls less expensive and therefore more attractive, an option that seems highly unlikely, or they compete with additional functionality"(Laing, A. 2014: 21).

In order to survive the onslaught of new, more affordable propositions, operators should embrace OTT services by offering them to subscribers as a competitive advantage. Competing in this evolving mobile setting is about continuously offering a basket of new services, which in this case means providing easy access to social networks and messaging apps. He suggests upselling other products and services with data bundles as one way for operators to benefit from the situation. "Attainable revenues per customer can be increased. Sales of affordable and relevant entry-level smartphones, addition of insurance products, e-mail services, opening of social media channels at zero cost all form opportunities to generate additional income and constitute attractions to sell additional services" (Laing, A. 2014: 21).

4.10. Supply and Demand

Cisco's Global Data Traffic forecast notes that the growth of data demand will exceed 60 % per annum over the next four years. The large drivers of data growth are games and online content streaming. But why does data remain so expensive? Simply put, because there is little

competition. In economies with reliable broadband, widespread WiFi and fibre connectivity, data is inexpensive. But for the vast majority of South Africans, the only real option they have is mobile data. "While it is easy and quick to connect, and the speeds are often terrific, it is expensive" (Zollner, 2015: 20).

Zollner believes that long term evolution (LTE) is the only real option for South Africans because fibre is not yet extensive enough. Again, he stresses that the problem comes down to a lack of competition, which means that those offering fibre are able to charge exorbitant amounts of money for it. And with strict regulations around spectrum, and access to it, those who already own the spectrum, own the market. "Mobile operators are massively profitable in this country. They may bleat that earnings are down, revenues are down, margins are down, but they're still raking in bundles of cash. So they have absolutely no incentive to change the system. It works for them" (Zollner, E. 2015: 20).

Data is the future for MNOs and they have the resources and capital to invest in infrastructure. But this handful of powerful players has little incentive to drop prices when they dominate the market. Laing is adamant that mobile operators can afford to drop their prices, continue to invest in infrastructure and still make a profit. "But until they face more competition and while we, the consumers, still want some kind of connection, they'll maintain the status quo"(Laing, A. 2014: 23).

The introduction of disruptive technologies driven by the Internet today is evident in the OTT players. The ITU's Broadband Commission in its 2012 report indicated that, "To achieve the expansion of broadband requires top-level political leadership and joint efforts by the private sector and government" (Broadband Commission, 2012). It is therefore critical to leverage the reach and dynamism of OTT services and online media to draw contributions from all sectors of society which is the basis for this study. The rise of the OTT services has created a new paradigm shift in the content industry as users start to generate increasing amount of content as opposed to simply consuming pre-packaged content. The medium of consumption has also shifted from fixed platforms such as personal computers to mobile phones.

Furthermore, the Mobile World Congress Report of 2013 noted that, voice and messaging revenues which for many years have been the 'mainstay of the telecommunications industry, are buckling under pressure from disruptive services driven principally by smartphone adoption of the availability of alternative communication applications such as WhatsApp (Mobile World Congress Report 2013)(Ericson Mobile Data traffic, 2014; and 2015). There are also various studies (Sharm, Cheta 2014), which all points out that the telecommunications sector has been

through three distinct revenue waves in its history:

First, there was the voice wave, then messaging and finally data. Both the first and second of these waves produced phenomenal profits for decades but now are in serious decline due to market saturation and the rise of consumer-friendly OTT services (Sharm, Cheta, 2014). While many in ICT the industry see the third wave as being a replacement cash cow, others, believe operators must look beyond data revenue to the fourth wave: OTT and Value Added Services (VAS)(Ericson Mobile Data traffic 2014).

What is clear from these studies is that the major network owners that are the front line in the broadband revolution historically provided four distinct consumer-facing products: home telephony, mobile telephony, cable television, and Internet access. In the residential market, these historical divisions are disappearing. Cable and telephone companies have each refashioned their networks to provide general-purpose high speed data transmission capacity.

Municipalities and other new actors are building their own residential broadband networks, offering the same basic services. Cell phone companies are also racing to become broadband providers. Cell phones have become much more than just phones, and data is rapidly overtaking voice as the dominant source of revenue in the industry (Mobile World Congress Report 2013). Mobile services offer lower bandwidth than residential service, and as a result, cellular networks will not be able to support robust wireless video for any substantial fraction of their users, and will not be able to support the same kind of “triple play” as residential broadband.

WhatsApp has an excess of over 700 million users, growing at a rate of 14.6 million new users per month. That represents user growth of 233% in 12 months, during which daily messages sent have increased from 2 billion to 10 billion (Mobilesquared forecasts, 2014).

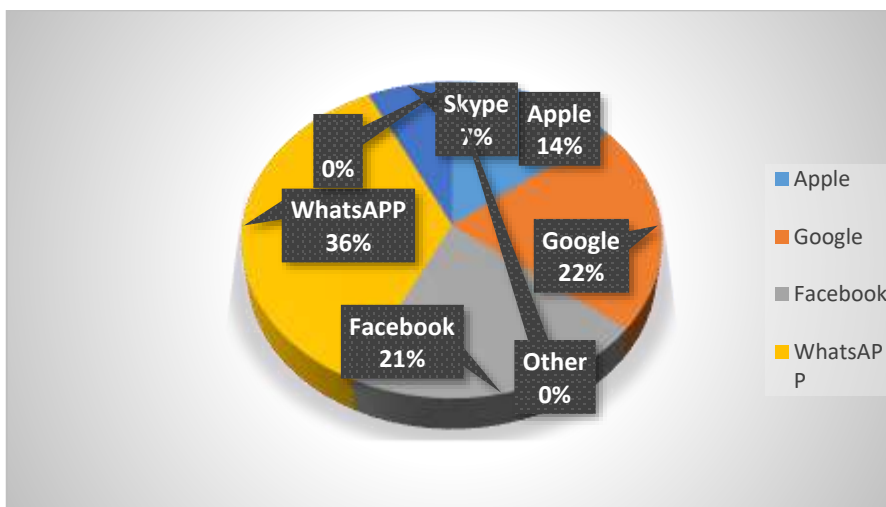
Beyond WhatsApp, there are more messaging and chat apps achieving scale. But mobile operators must act now, as the impact of OTT services is chipping away at their messaging revenues. Between 2011 and 2013, the research shows that the number of mobile operators stating that they had not experienced a drop in messaging revenues as a direct result of OTT clients on smartphones has almost halved from 62% to 36%.

In 2014, Mobilesquared released a report on the annual OTT research process. It found 14% of mobile operators claimed that OTT created a loss of messaging revenue of more than 21%. Mobile operators are under no illusion that OTT services will have a financial impact on the industry (Mobilesquared 2014). However, when surveyed, 36% of mobile operators expected WhatsApp

to have the greatest impact on their revenues. WhatsApp was followed by Google and Facebook, which both received 21% each of mobile operators' responses as well as Apple on 14%.

Surprisingly, Skype only attracted 7% of mobile operator responses, though when the impact of Skype, Google and Facebook were separated out within the quantitative research, Skype was considered the greatest threat (Mobilesquared 2014). This was a strong indication that mobile operators are more concerned about declining messaging revenues than voice, and as a consequence they are looking to partner with OTT services providers, such as WhatsApp to offset the decline in traditional messaging revenues with an increase in OTT termination traffic revenues. Therefore, it could be argued that in the short term OTT communications may have a negative impact on messaging revenues, but a positive impact in the long term. Consequently, operators are now more open than ever before to considering the opportunity of partnership to bolster their revenues.

4.11. Graph shows which OTT players will have the biggest impact on mobile revenues



Source: Mobilesquared

4.12. Mobile Operator's Strategies in dealing with the threat of OTT WhatsApp

Various research indicates that mobile operators have mounted defences against the OTT threat, with varying degrees of success. While some operators are vehemently opposing the role of OTT services, others are becoming more OTT compliant and have launched OTT communication-based data bundles. The case in points are Mobily in Saudi Arabia, Airtel in Nigeria and SmarTone in Hong Kong which are all offering data bundles with unlimited WhatsApp

messaging, for example (mobilesquared 2014).

In select parts of the world, the incumbent operators have been shielded from full impact of OTT through national regulations, for example, China and the Middle East (The Management Network Group Inc 2014). Whilst this rarely manifests as a complete ban, and restrictions in some markets (Egypt and United Arab Emirates (UAE) have been relaxed over time, this has provided operators in these markets with temporary breathing room. In India, the government panel on net neutrality proposed that government should regulate domestic calls made using Internet-based calling applications such as Skype and WhatsApp on a par with phone call services offered by telecom operators (Doval, P (2015). The Oman, United Arab Emirates (UAE), Saudi Arabia, Kuwait, Qatar, Mexico and Pakistan have also blocked these services for their government interest (Kulangareth, 2014).

Elsewhere, some operators have chosen to enforce their own block of OTT on their networks; attempts have also been made to disable handsets from supporting them. Such moves, however, can give rise to consumer disapproval and potential regulatory intervention. Where operators have no choice but to support third-party OTT apps, new pricing strategies have been deployed. Rather than complete head-to-head in a price war with OTT entrants, many operators have instead structured propositions to offer ever-larger bundles of minutes and texts, effectively at marginal price of zero without wider value destruction. This offers a partial solution when coupled with usage-based pricing of data. Some price difference will persist though, particularly for roaming, where the use of OTT is most popular.

The Atkearney Report, however, debunks the argument that OTTs will wipe-off existing investment of telecoms. The report states that three elements must be in place before mobile VoIP can become a compelling consumer proposition; “a strong, widespread indoor mobile broadband coverage; ubiquitous and interoperable apps in a large share of smartphones and longer-lasting batteries that can handle the power drain caused by active apps.” Fortunately, none of these points are reality in any part of Africa at the moment (The Atkearney report 2012).

4.13. South Africa’s Mobile Operator’s Strategies in Dealing with OTT Services.

The following will provide a snap shot of what mobile operators are doing either to work with OTTs or provide alternative mechanism to the use of their network:

4.13.1. Cell C

In South Africa Cell C offers limited free access to WhatsApp and Facebook to its customers for the price of just R5 (Cell C 2015.) According to the company's statement on its website which quotes its Chief Executive Officer, Jose Dos Santos, for close to a year, Cell C offers Free WhatsApp to give customers the best possible value on its service'. The bundle was available as of 01 September 2015. For a R5 access fee customers are able to send pictures, voice messages, videos and text messages via WhatsApp. The bundle is available in a once off format or a monthly recurring format which is valid for 30 days. Data rates of customer's tariff plan will apply if they don't subscribe for the access fee.⁴

In addition, Cell C has indicated that "Cell C has seen such great success in our venture to embrace over-the-top players like WhatsApp, and we are pleased to now bring an incredible value proposition to our customers '(Dos Santos, J: 2015:1). WhatsApp continues to be one of the most popular messaging services used on Cell C's network and the company's decision to use innovative technologies and bring down the cost to communicate in this bundle. The company has also stressed that "this is a permanent product and not a promotional offer. The WhatsApp bundle will be available to all prepaid top-up and postpaid customers on the Cell C network '(Dos Santos, J: 2015:1).

4.13.2. Mobile Telephone Network (MTN)

MTN's free Twitter is not an entirely new offer as it had been linked to the purchase of specific data bundles in the past (Cloete, E. 2014:1 Get free Twitter with MTN's Internet Services.www.mtnblog.co.za/free-twitter). What is new about the offer is that one can tweet and browse twitter without positive airtime balance although the photos and other media will not load which means being on twitter is half the fun. The offer in this guise was first made available during the Cricket World Cup in 2015 (<http://www.icc-cricket.com/cricket-world-cup>), and was extended after the final match to the end of April.

Another addition by MTN is "Twitter SMS" which enables those who have signed up for the services to receive tweets by a specific tweep via SMS whenever that person tweets(Cloete, E. 2015:1). Free Twitter and twitter SMS from MTN.www.mtnblog.co.za/free-twitter-SMS-FROM-MTN/). Tweeting free on MTN for the rest of May although it may well be extended after

⁴ <http://www.cellc.co.za/explore/newsroom/cell-c-launches-whatsapp-bundle>

MTN said was an offer which was doing absolutely great”said in a statement on its website (www.mtnblog.co.za).

4.13.3. Vodacom

Vodacom subscribers have been grumbling on Twitter that the mobile communications company doesn’t offer them access to at least one social network for free. Vodacom at 53.3% is the market leader within the smartphone market according to the March 2014 survey of Desktop User’s Attitudes and Uses of Mobile Phones (South African Mobile Report 2014:3).any move by Vodacom to provide one of the OTT messaging services at no cost would not only benefit a large number of Internet users but is also likely to make free social media access an even more interesting area of competition between the mobile networks. Vodacom, however, has also been one of the most vocal in expressing concern that OTT services don’t get a free ride at operators’ expense (Oxford, A 2014:1).

In addition, both MTN and Vodacom have expressed their displeasure at threats that WhatsApp and Skype are unfairly benefiting from the company’s costly infrastructure. In an article published in the Mail&Gurdian Newspaper mobile operators were all lobbying ICASA furiously to allow them to begin charging OTT directly. The current situation in which their own expensive services are being replaced by cheaper and better international equivalents, is simply “unfair”, they argued (Fairweather, A. 2014: 1).

4.13.4. Telkom Mobile

None of the OTT messaging services are offered for free for Telkom Mobile subscribers but their “free WiFi for everyone” offer is worth a mention at this point because depending on how you look at it they have been paying for some of everyone’s usage through it (<http://www.telkom.co.za/today/>). For example, thirty minutes of free unlimited Wifi to chat away, send videos, images and other files for MTN, Vodacom and Cell C customers at more than 2 500 WiFi hotspots countrywide daily. Usage is activated by sending an SMS for R1 at eateries that include Nandos, Steers and Wimpy (<http://www.telkom.co.za/today/shop/wifi/>). Nothing like free WhatsApp or Twitter but an OK deal nonetheless (htxt.africa: 2014:2).5

5. htxt.africa is South Africa’s newest and most exciting tech blog, covering everything from the top end of government IT investment and spending down to maker culture, hackspaces and -well, generally- fun. They cover far

4.13.5. Virgin Mobile

Like Telkom Mobile and Vodacom, Virgin Mobile South Africa does not offer free social media access on its network. Some Virgin Mobile customers have access to the networks' free SMS deal for private users. The deal is mentioned to prevent excessive SMSing. It is as close as you will get to a free instant messaging services on Virgin Mobile - up to 1 000 free SMS a day (htxt.africa: 2014:2).

OTT messaging is often paid for much like SMS was a few years ago and one will surely be watching the market to see if the top messaging will end up as a free add on in a few years as has been the fate of SMS in most cases. Until then you are free to pick a free social media access as it is provided for by the mobile networks (htxt.africa: 2014:2).

Internationally, convergence has brought about a shift in the ICT sector, and has acted as an enabler for socio-economic development. The convergence of technologies and services has interrupted the traditional way in which ICT's operate locally and worldwide. The challenge for regulators worldwide is to address fair competition between regulated broadcasters and unregulated services.

There are different views on whether or not OTT should be regulated. In this regard, the ITU has given countries the following guidance (ITU-InfoDev: undated):

- Proliferation of content and application services is to be welcomed as they add utility for users;
- Change is inevitable. As network operators migrate to next generation network, voice services will become software applications riding over the network. During this transition, policy-makers are finding different paths to balance innovation, investments and competition;
- Regulators cannot hold back the tides of change to maintain the status quo;
- These changes are disruptive and inconvenient for those with a stake in existing arrangements, but the benefits of change outweigh the cost; and Regulators generally support innovation. They prevent fixed and mobile operators from blocking or degrading competing services (ITU-InfoDev: undated :251)

more of the latter than the former, in fact, and aim to make this the number one community for genuinely interesting stuff that's coming from South Africa and the rest of the continent

In line with a 2012 report by CASBAA 46 on Asia-Pacific Pay-TV and OTT, in Asia Pacific OTT regulation is still a new phenomenon, and various jurisdictions have applied different approaches to regulating OTT services. The Report found that few governments in Asia distinguish between different types of services and have implemented differential regulatory approaches (CASBAA Report: 2012). In Asian markets OTT video is subject to only the relatively loose regulations applied to internet services.

To this end, the CASBAA Report recommended that governments must review their existing regulatory constraints on broadcasters in light of the competitive challenge from legitimate OTT video. Steps should be taken to reduce regulatory codes, taxation policies, content controls, etc. to reduce the burden on traditional broadcasters (CASBAA Report: 2012).

The CASBAA report recommended that the ‘playing field in the PayTV market and OTT market should be levelled across the Asia Pacific countries. The report mentioned countries affected by this such as Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Philippines, Singapore, South Korea, Taiwan, Thailand, Vietnam.

In addition to the above, the CASBAA group hosted its annual OTT Summit in March 2016 in Singapore, which was meant to help role players to better understand the business of OTT, from assessing global trends and Asian specifics to what ICT Everywhere means to the industry(Chung, D. 2012:1).

4.14. Levelling the Playing Field in Terms of-Regulations

In the European Union (EU) and the United States of America (USA), the debate seems to be centred on reviewing the regulatory playing field. The problem seems to be that the policy and regulatory frameworks remains largely telecom-centric. That is to say it imposes a greater regulatory burden on telecoms than on OTTs. A situation has arisen in which players such as Google, WhatsApp, Netflix, etc. are increasingly providing equivalent "telecoms" services but are not subject to the same policy and regulatory regime as the traditional telecoms.

These developments have raised considerable debate around levelling the regulatory playing fields for Telecoms and OTTs. According to the EU-based makethenetwork.eu, the need for a level regulatory playing field is driven by three factors (makethenetwork.eu 2014):

6 The CASBAA 2012 reports “A tilted playing field – Asia Pacific Pay TV and OTT”.

- **Consumer protection and public interest regulations that apply to operators but not to Internet companies (for example, concerning data privacy and consumer transparency).** The asymmetry in privacy regulations, which requires additional safeguards from operators and artificially disadvantages some market players by limiting their ability to deliver a range of services only available from Internet companies, for example, location-based advertising;
- **Pre-emptive regulations that apply to products and services offered by telecoms operators but not to equivalent Internet services (for example Net Neutrality, price regulation, interconnection and portability).** Internet companies have not yet been fully assessed by policymakers when it comes to their market power. Plans to impose Net Neutrality constraints on operators is an example of this imbalance, despite arguments that Internet companies exert significant control over consumer choice and end-to-end connectivity in the broadband environment, for example via the preferences given to selected applications by the Android operating system; and
- **Higher burden placed on operators by sector-specific taxes and fees.** Operators are subject to a range of taxes and fees, for example special excise taxes on call minutes and regulatory administration fees, which are not faced by Internet companies.

4.15. Impact of OTTs on Current Regulations in the World

The “level playing field” is a central theme in the discussion about the regulatory treatment of OTT services. The idea of the “level playing field” is that services that have the same functionality and compete with each other should all be subject to the same regulatory treatment. After all, a different regulatory treatment could result in a distortion of competition because certain services carry regulatory costs while others do not.

4.16. Regulating Accurate Data Traffic

A lack of legal competence to gather information on OTT-1/2 providers can for example affect the execution of market analyses. For example, data collection showed that national regulators do not have a clear picture of the volume of OTT voice traffic. This affects the assessment of the impact of OTT services on traditional ECS services (Commission Recommendation 2014).

4.17. Regulating Emergency Calling on OTTs

In Europe, Article 26 of the Universal Service Directive(USD), obliges undertakings providing end users with an ECS for originating national calls to a number or numbers in a national numbering plan, to provide access to emergency services ('112') free of charge. Therefore, OTT-1 voice services, not being an ECS, do not have to provide access to emergency services (Article 26 of the Universal Service Directive (USD, 1996).

The general considerations which might determine the application of this obligation to any specific type of service, or service provider should include an assessment of (a) the extent to which the obligation will further the interests of citizens and consumers (in this case, by ensuring that they can access the emergency services in an emergency) and (b) the cost of this obligation to the types of service provider potentially covered, whether direct costs of complying with the obligation or indirect costs in the form of constraints on operators' ability to offer services.

An essential question regarding the application in the light of consumer interest is whether this obligation is necessary and, if yes, whether it is necessary that all providers of voice services provide access to emergency services or whether it is sufficient that this is limited to a narrower group of providers. There are several regulatory options for the legislator to consider. Another relevant question- related to the level playing field issue- is whether ECS and OTT voice services will really compete with each other.

4.18. Transparency

As in South Africa, the Electronic Communication Act has similar obligations imposed on operators. Similarly, Articles 20, 21 and 22 of the USD oblige providers of ECS to make their offers transparent.⁷ The first question is whether sector-specific rules are needed or whether the generic rules on transparency are sufficient. There are also generic consumer rights; consumer information for contracts", "formal requirements for off-premises contracts" and "for distance contracts", "right of withdrawal" conditions.

Furthermore, in the forward-looking perspective of a new legal framework applying to the whole digital ecosystem, there may be a need for a thorough reconsideration of the current regulation

⁷ These articles oblige providers respectively to comply with a list of contract specifications (Article 20 USD), provide information publicly and transparently (Article 21 USD) to provide information on the quality of service (Article 22 USD)

for ECS and OTT services. In other words, in light of the potential prospective evolution of the ECN/S Framework towards a single set of legal rules for protection of all consumers of digital services, it might be appropriate to reason in terms of developing a unique and effective protection system dedicated to all consumers of digital services in order to ensure that the latter will be able to benefit from the same level of protection.

4.19. OTT-2 Regulation and Interaction with ECS: France, Finland, Belgium, India and Netherlands

Specific rules for communication services, where necessary, should be applied independently from the nature of the provider but based on the characteristics of the service because the distinction between “OTT-1” and “OTT-2” will become more and more blurred as communication functions are routinely included in digital services in general (on-line gaming, social networks, e-commerce, CRM, e-administration to mention a few already include messaging, voice or video services). For some consumers, end-to-end quality, emergency call functionality or any-to-any connectivity based on phone numbers are crucial differentiators when choosing the preferred service. Since the entry of OTTs services in the market, with few exceptions, the national regulators are struggling to regulate and enforce compliance on OTT providers to ensure services are licence and given service obligations in line with various current legislative and regulatory regimes governing electronic communications services in the ICT sector.

In France, for example, a preliminary declaration is imposed on players that want to provide ECS. According to Arcep, as Skype has engaged in the business of providing a telephone service to the public, it has also to comply with certain obligations, which include the routing of emergency calls and implementing the means required to perform legally ordered interceptions (Paris General Court 2008). Failure to comply with this obligation to declare could be classified as a criminal offence under French law. However, two years later, Skype has still not declared itself as an operator before Arcep.

In Belgium, likewise in France, ECS providers should notify themselves to the Belgium NRA but the interpretation of what an ECS consists of differs between regulators and OTTs providers. Skype is refusing to disclose to the Belgian authorities data from messages and calls made by a Skype user claiming that Skype does not provide ECS, the company has been ordered to appear before a court for hindering the examining legal phase of an inquiry and infringement of ECS law. As a consequence, the ruling is in the hands of a criminal judge that is not used to Telecom

Package rules and that could request the intervention of the Court of Justice of the European Union for a preliminary ruling. This procedure is expected to last a long time.

In Finland, according to the preparatory legislative work (Government Bill 221/2013)⁸ of the Finnish Information Society Code, services such as email and instant messaging are ECS if the service provider participates in the transmission of the messages. According to this Government Bill, the transmission can cover the whole transmission of the messages from end-user to end-user or just a part of it.

In the Netherlands, the Trade and Industry Appeals Tribunal found in its ruling (Trade and Industry Appeals Tribunal (CBb) , 2014) that email services such as Gmail and Hotmail cannot be considered as ECS. According to the Court, the providers of email services such as Gmail or Hotmail, are usually not the party that conveys the signals that make up these email services. The court seems to have considered that it is the ISP that conveys the signals and not the provider of the email service, and customers have separate relations with both the ISP and the email provider. In other words: the customer acquires the conveyance of signals from the ISP and the email service from the email provider (Body of European Regulators for Electronic Communication (2015).

4.20. Cost Sponsoring

Cost sponsoring refers to situations when an OTT service is included “free of charge” or offered at a discount for a certain period of time or for the whole duration of the contract with the ECS. Trial offers (e.g. free for a month or two months) are common in this regard. These offers are logically only relevant when the OTT service in question incurs some cost to end users when purchased over the Internet, which is typically the case for premium audio or visual streaming services.

4.21. Data Sponsoring

Data sponsoring refers to situations when the data traffic of an OTT service is included “free of charge”, by being excluded from –or “zero-rated” –the data plan of a particular contract. As many

⁸ Government Bill 221/2013. In Finland, preparatory legislative work provides information on the legislator’s intention and is used in the interpretation and application of legislation. Though preparatory legislative documents' binding force is not equal to laws in the doctrine of the sources of the law, their binding force is significant and in practice they are binding

fixed Internet access offers include an unlimited data plan, these offers are more prominent in combination with mobile Internet access services. Facebook is an example of an OTT provider that figures in these kinds of partnerships.

India, has proposed regulations on Internet applications other OTT services which provides content. Authors in that country have warned against this move arguing that , the proposed regulations have the potential to can stifle innovation, inflate costs, and undermine efforts to expand access(West, D 2015:7). Despite these ‘harms’, however’ India is considering regulations on web-based calls and text through platforms such as Skype and WhatsApp (West, D 2015:7). In Europe, there have been similar requests to regulate these services (West, D 2015:7).

The Telecom Regulatory Authority of India (TRAI) in April 2015, issued a Consultation Paper on Regulatory framework for OTT services in that country (Consultation paper 2/2015). The Regulatory asked the ICT sector, issues which related to pricing and revenue share arrangements between Telecommunications Service Providers (TSPs) and OTTs, if required. The questions included the following:

Question 1: Should the OTT players pay for use of the TSPs network over and above data charges paid by consumers? If yes, what pricing options can be adopted? Could such options include prices based on bandwidth consumption? Can prices be used as a means of product/service differentiation? Please comment with justifications;

Question 2: In what manner can the proposals for a regulatory framework for OTTs in India draw from those of the European Telecommunications Network Operators Association (ETNO)⁹ referred to in para 4.23 or the best practices summarised in para 4.29? And, what practices should be proscribed by regulatory fiat? Please comment with justifications.

Question 3: How should the conducive and balanced environment be created such that TSPs are able to invest in network infrastructure and CAPs are able to innovate and grow? Who should bear the network upgradation costs? Please comment with justifications

Question 4: Is there a justification for allowing differential pricing for data access and OTT communication services? If so, what changes need to be brought about in the present tariff and

⁹ ETNO) is representing 41 major companies, which provide electronic communications networks over fixed, mobile or personal communications systems in 35 countries. ETNO is Europe's leading trade association. More information www.etno.eu

regulatory framework for telecommunication services in the country? Please comment with justifications

Question 5: Should OTT communication service players be treated as Bulk User of Telecom Services (BuTS)? How should the framework be structured to prevent any discrimination and protect stakeholder interest? Please comment with justification; and

Question 6: Is there a need to regulate subscription charges for OTT communication services? Please comment with justifications

In response, the industry, particularly Bharti Airtel Limited has argued that “OTT application provider have so far thrived in a largely unregulated environment, and caution must be exercised to ensure that any regulation does not hamper competition or innovation among these stakeholders”(Bharti Airtel Limited 2015: 3).

4.22. Providers treated equally: same services, same rules

Currently, TSPs and OTT communication service providers offer the same communication services such as voice. While TSPs are subject to a number of regulatory and licensing requirements, such as payment of licence fee, taxes, security conditions, etc., OTT communication service providers have no such obligations (Bharti Airtel Limited 2015: 4).

4.23. Contribution to national development

By contrast, OTT service providers do not pay levies or, indeed, aid national development in any way whatsoever. And they certainly bypass national security norms. While these OTT service providers do offer telecommunication services, they also do not buy spectrum or pay regulatory levies/taxes; and hence do not contribute in any way other than the provision of services that the TSPs also provide (Bharti Airtel Limited 2015: 4).

4.24. Threat to National Security

OTT services providers do not offer any lawful interception to national security agencies even for Indian citizens residing in India. Further, since their switching servers are installed in foreign countries, OTT’s communication traffic from these servers can be intercepted by those foreign governments, but not by the Indian government. They are also not obliged to provide subscriber

and call logs to the security agencies in India unlike TSPs who are bound to do so as per their licensing obligations (Bharti Airtel Limited 2015: 5).

At current realisation, every 1 % of TSP voice minute that is substituted by OTT VoIP would lead to Rs.1200 crores revenue loss to the industry. This would result in either data prices going up significantly or an equally severe blow to Industry revenues and its contribution to the development agenda through license fees, Spectrum Usage Charge (SUC), Universal Service Obligation Fund (USOF) and service tax. Either of these would be a significant setback to the Digital India Agenda (Bharti Airtel Limited 2015: 5).

Same Customer Protection: OTT Communication Service providers should be subjected to the same compliance requirements that a TSP is, as this is what ensures the appropriate level of customer protection-Quality of Service (QoS), tariffs, metering, billing and privacy, etc. Finally, *Same National Security Responsibility:* OTT communication service provider should be required to provide monitoring and logs as required from the TSPs.

4.25. What is happening? South Africa and the Regulation of OTT Services?

As highlighted before there are gaps in the South African laws governing the ICT sector. The issue of OTT services has not really featured much, occasionally it is been discussed in different foras as well as through press statement released by some mobile operators. More recently though, at the Telecommunication and Media Forum entitled “Best practice policy and regulatory decision making to drive connectivity, accessibility, affordability and competitiveness in the global economy”, organised jointly by the International Institute for Communication(IIC) and ICASA

Policy and Regulatory issues on OTT services were discussed at length. Issues debated included, the growth of new media and applications; what role for regulation? Social media/apps -whose responsibility? What are the frameworks to consider? Access to content; protection of minors; dealing with piracy were all discussed at length outside of an existing of the policy or regulatory frameworks (International Institute for Communication, ICASA, 2015: 3)

At the level of the legislature, Chapter 4 of the South African Constitution gives a mandate to a number of Portfolio Committees to legislate, conduct oversight visits, facilitate public participation as well as to represent the people of South Africa (Constitution of South Africa, No 108 of 1996 as amended). Committee are sector-specific arms of Parliament (both the National Assembly (NA) and National Council of Provinces (NCOP) which exercises an oversight role

over the executive in a given portfolio. The work of Committee may also include investigation of any matter of public interest that falls within the ICT area of responsibility.

In 2015, the Department of Telecommunications and Postal Services (DTPS) was still in the process of considering recommendations made by the ICT Policy Review Panel¹⁰ (Department of Telecommunications and Postal Services 2015: 4) the process was to inform the White Paper development process which was to be finalised by the end of March 2016, and the Telecommunications Bill would have emanated from the White Paper process will only be introduced to Parliament for public participation during the 2016/17 financial year (Department of Telecommunications and Postal Services 2015:4).

It also important to note that while the ICT Policy Review Recommendation Report was exhaustive (started with a framing paper in April 2013; moved to a Green Paper in January 2014; moved into a Discussion Paper in November 2014; and Recommendations submitted to government in March 2015) and it took almost 2 years to complete. It also carried over 140 submissions, had nine provincial workshops, consultations involved government, the private sector, Non-governmental organisations and over 176 pages which includes extensive sections on Infrastructure and Services; the Digital Society; Audio and Audio-Visual Content Services; ICT Industry Growth as well as Institutional Frameworks); however, there is only two paragraphs that reference the OTTs (National Integrated ICT Policy Review Report 2015: 59).

In these paragraphs the panel noted; ‘the implications of OTT services in economic terms, is that OTT players rely on IP based networks to reach their customers and do not make any direct contribution towards the cost of rolling out infrastructure/ the network. Some of the network service providers have argued this causes harm’ (National Integrated ICT Policy Review Report 2015: 59). The panel recommended two things in South Africa that :For now a wait-and-see approach is taken so as not to stifle innovation; and (b) The impact of OTT services though should be continually monitored and regulatory intervention introduced if it is deemed necessary (National Integrated ICT Policy Review Report 2015: 59).

At the ICT Policy Review Presentation, both MTN and Vodacom as well as the National Association for Broadcasters were of the view that OTT services pose a real competitive challenge to the industry. They all cite the fact that OTT providers will not be competing on a level playing

¹⁰ The objectives of the ICT Policy Review Panel includes issues such like freedom of expression, access to diverse content, services, applications, upholding constitutional standard and values; promote innovation; fair competition, ensure universal access and service; ensure accessibility to all; enable economic growth, employment, etc, protect privacy and a safe communication environment

field. OTT services offer content and programming identical to their services, but without any license or regulatory obligations (www.nab.org.za: 2015). On the other hand Cell C appeared to have embraced both WhatsApp and Facebook offering them on a R5 per month and R10 respectively.

In December 2017, Cabinet approved the National Integrated ICT White Paper (White Paper) for implementation (Cabinet Media Statement 2017:3). The key aim of the CT White Policy beyond replacing the White Papers on Telecommunications (1996) and Postal Services (1998) and various legislations, is also to outline the overarching policy framework for the transformation of South Africa into an inclusive and innovative digital and knowledge society (The National Integrated ICT Policy White Paper 2017: 02). In addition, the White Paper outlines government's approach to:

- provide cross-government leadership and facilitating multi-stakeholder participation;
- interventions to reinforce fair competition and facilitate innovation in the converged environment; policies to protect the open Internet;
- establish policies to address the digital divide and new approaches to addressing supply-side issues and infrastructure rollout including managing scarce resources.

In addition, the White Paper outlines policies to address demand-side issues in order to:

- facilitate inclusive digital transformation in the country and provides for a new national postal sector policy framework, in respect of the market structure for the postal sector and the regulation and licensing thereof.;
- address issues related to the promotion of growth in the ICT and postal industries and provides for institutional frameworks necessary to facilitate the implementation of this policy document;
- Legislative actions are necessary to enable the implementation of the White Paper in the short to medium-term. Given that the implementation of the White Paper will be collaborative, and under-pinned by the whole-of-government approach therefore the development of the Bills will also require amendment to other laws such as the ICASA Act.

The ICT White Paper, envisaged a 'sector economic regulator' which among other things will have Memoranda of Understanding (MoUs) with National Consumer Commission(NCC) and Competition Commission, which are the organisations working with or has similar structure with

the Independent Communications Authority of South Africa (ICASA).

On Local Content

Chapter 10 of the Policy, focuses on the need to increase the amount of local content available over digital platforms as means to drive uptake of digital technologies. It recognises that broadcasting and broadcasting-like content will be one component of this but notes that this will require specific regulation which will be decided on through the broadcasting policy review process.

Criticism of the White Paper

One of the criticism levelled against government on this policy is that it appears to contain the policy directive to the regulators in some instances and these provisions are unconstitutional and it requires that a separate process must be followed when issuing a policy directive in line with section 3 of the Electronic Communications Act, No.35 of 2005 as amended (ICASA, 2018:10). Some of the examples cited include provisions in the White Paper which states ‘the regulator is responsible for the licensing of the Wireless OAN (including both ECNS and spectrum licences’(White Paper: 2017: 30). Another Policy/ Directive reads...’the speedy licensing of the Wireless OAN is key to meeting the 2020 targets set out in South Africa Connect and the overall Vision 2030.... as a result, the regulator is hereby directed to follow a public process in licensing Wireless OAN.’

Although the licensing of high demand spectrum is urgent and the process is non-competitive, a public process is important to ensure transparency in the assignment of high demand spectrum. The regulator should also evaluate and be satisfied with the proposed consortium’s technical plan, financial viability, ability to commence rollout of licensing, operational capacity and its strategy to enter into commercial agreements with existing operators to piggy back on existing infrastructure prior to issuing it a license.

In addition, the regulator should have due regard to the network’s universal access strategy - both technical and financial - to ensure full population coverage in a reasonable space of time and importantly the required capacity. In all these instances, the ICT White Paper is read as giving instructions to the regulator, something that is legislated in terms of the ECA on what the Ministerial powers are in issuing policy directive, not just in the policy, as it proposed.

The White Paper has been a huge contested terrain which resulted in the regulator for the first time in history, taking the Minister of Telecommunications and Postal Services to Court over both the policy as well as Invitation To Apply (ITA). The Court case was based on procedural matters;

whether or not ICASA had followed due process in issuing the ITA as per the law, ECA, especially with full knowledge that not a single broadcaster in the country has migrated from the current analogue use 700Mhz and 800Mhz to digital. In March 2017, the Court then ruled in favour of the Minister and decided halt the ITA as part A. The Court, however, to defer Part B which are substantive arguments to a later date.

In proceeding with the case, Part B has also seen mobile operators either siding with ICASA or Minister of Telecommunications and Postal Service in the conflict, while some are against the views expressed by each of the two parties. In this regard, Cell C, Telkom and others applied to support the Minister and MTN and Vodacom supports ICASA in its bid to release he spectrum. As indicated previously, Part B will deal with the substance or the merit or demerit of the case. This will also include new developments which will impact on the case such as the following:

- That the Integrated ICT White Paper had been approved by Cabinet which was not the case during the initial hearing in March 2017;
- The ITA calls for a single wholesale network to be allocated some parts of the spectrum (700Mhz) 2.5X 15Mhz ; which the DTSP called for in its Policy;
- In addition, there is another 2.x 15Mhz spectrum reserved for a proper LTE network, which will be allocated through a separate process.
- That WRC-15 Ratification process would have been completed as the DTSP has already presented it before the National Assembly (PC on Telecommunications and Postal Services) and the National Council of Provinces (NCOP) via the Select Committee on Communications and Labour;
- The argument alleged to have been presented by ICASA with a list of European Countries that assigned radio frequency spectrum to operators whilst the DTT was still ongoing;
- The operators are only allocated the spectrum once the DTT is completed, however, regulators use 30% of the spectrum auction proceed to give it to broadcasters as an incentives for migrating in their current frequency;
- Broadcasters raised issues with ICASA during hearings on frequency spectrum; one of the key question is that is who will fund this digital to digital frequency migration? Since it is not them requesting the change and the benefit of the change will be to advantage of mobile telecommunication service providers;
- There was no proposal in the ITA which should have included a clause or provision for the auction price to fund this second digital migration;

- Broadcaster's concerns were also not covered in the ITA, to include clarity who funds the cost of public awareness campaigns for re-tuning of decoders even though this will most probably be done automatically by decoders and re-tuning DTT transmitters (in some cases re-tuning not possible and modulator will need to be replaced entirely);
- ICASA has never addressed this issue previously and even on the ITA. For instance, the incentive based auctions currently underway in the US and administered by the FCC, does make provision for broadcaster to receive funding from the proceeds of the spectrum auction. This was clearly ignored by ICASA;
- That a policy directives must be issued by the DTSP to ICASA as the current Act allows such to happen without the delays in amending the legislation which may take years to conclude; and
- That no such policy directives have been issued by DTSP at this point which further delays the matter.

If the judge rules in ICASA's favour, ICASA will have to immediately publish or issue the same ITA with revised dates for spectrum auctioning. In Part B, ICASA has been joined by MTN and Vodacom, whilst the DTSP is joined by Telkom and Cell C which means should one of the principal parties (ICASA and DTSP) win or lose, their partners reserve the right to also appeal or review judgements to a higher Court all the way to the Constitutional Court.

During their December 2017 presentation in Parliament, ICASA indicated that lawyers representing the Minister of Telecommunications and Postal Service and ICASA are in consultation each other on the possibility for an out of Court-settlement between the two parties and this process is initiated by the Minister (ICASA 2017:35).

Whilst the case might be withdrawn, it is proposed that irrespective of the Court Case judgement, all cost associated with migration of television out of their normal frequencies should be left to the winning bidder to enter into discussion with the National Association of Broadcasters (NAB) regarding migration cost related to broadcasters.

There also needs for a monthly bilateral meeting between ICASA and DoC/ DTSP on issues affecting the two sectors, as Councillors are not the officials executing projects, rather approve and oversee projects implementation. The proposed monthly meeting should discuss what ICASA and DoC; and what DTSP-DoC hope to implement which might require ICASA's intervention. The Plans as stipulated in the Corporate Plans are not enough to deal with and avoid expression of uninformed views in the public by all parties involved as is the case in point. There are other

scenarios which needs to be considered and these include the fact that the out-of-court settlement must be extended to the parties that have joined the Court case.

4.26. Summary of the Integrated ICT White Paper and its implications to ICASA

It is noteworthy that the matter between ICASA and Minister of Telecommunication and Postal Services relates to the Spectrum-ITA which was published in July 2016 and was only heard in Court and will be heard before June 2017. It is, however, interesting and disappointing to note the provision to allocate Lot A through a separate process which will see this Lot or that radio frequency spectrum being allocated to Wholesale Open Access Network (WOAN) ,was in fact the ICT White proposal, which ICASA had already issued in its the disputed (ITA) on the basis on policy that was at that stage not yet to be approved by Cabinet on behalf of government.

This therefore beg the question.. how did ICASA issue the regulations on spectrum in March 2015 and ITA in July 2016 on the basis of the policy which was formulated but had still not approved by government? The process of appointing ‘sector regulators’ and Wireless Open Access Network will be appointed from different mechanism which does not include involvement a public nomination process; instead members of the Wireless OAN consortium are selected on a fair basis and through a transparent and legally sound process. The selection process is not defined.

4.27. Ministerial Policy Powers on Universal Access and Universal Service on Broadcasting Matters

Whilst the Policy calls for USAASA to be dissolved and the USAF will be transformed into a new Digital- (“the Digital-DF) responsible for providing support to achieve the objectives set. The Ministry of Communication supported this move as it would cover the broadcasting sector. The functions of the Digital Development Fund include the broadcasting sector, in that, the Digital-DF stipulates that’ beneficiaries of the Fund may include players across the ICT value chain including broadcasting.

This is because the performance of USAASA is well document, for instance the Agency has consistency failed to adhere to Section 4 (a-1) of the USAASA Act which includes the failure to continually survey and evaluate the extent to which universal access and services have been achieved, as well as to conduct research into and keep abreast of developments in the country and elsewhere on ICTs electronic communication services and electronic communications facilities.

4.28. Alignment of Policy with National Development Plan, Medium Term Strategic Framework and Government Priority

The National Development Plan recognises that the ongoing development of quality communications infrastructure, services, content and applications, is key to the accelerated economic, social and cultural development of the country. The National Development Plan further directs the Department to undertake a full policy review of the sector.

The Nine-Point Plan for growing the economy and creating jobs, includes the need to boost ICT infrastructure and broadband rollout. The National Integrated ICT Policy White Paper outlines the overarching framework for the role that ICTs and the postal sector can play in transforming the country into an inclusive and innovative digital society and knowledge economy.

The Medium Term Strategic Framework (MTSF), outcome 6, sub-outcome 5 requires the Department to develop a new policy framework / strategy / plan for ICT, including an assessment of the role of state ICT infrastructure agencies and interventions.

National Integrated ICT Policy White Paper requires a rapid expansion of access to and use of ICT infrastructure, it requires investment in a comprehensive plan to expand broadband access throughout the country and substantially reduce the cost of communication.

At the Parliamentary meeting held on Tuesday, 10 October 2017, the Department of Telecommunications and Postal Service's Director General, Mr Robert Nkuna indicated that the Department was ready to table proposed legislation emanating from the National Integrated ICT Policy White Paper (Nkuna, R, 2017:01).

The Department proposed the following current legislations that require to be amended, whilst there are new legislation that have been proposed to establish new entities:

- Electronic Communications Amendment Bill;
- Postal Services Amendment Bill;
- South African Post Office Amendment Bill ;
- Electronic Communications and Transactions Amendment Bill;
- State Information Technology Agency Amendment Bill and
- State ICT Infrastructure Bill.

Legislation to establish new entities include:

- Digital Development Fund Bill;
- ICT Sector Commission and Tribunal Bill;
- Ikamva National e-Skills Institute

During the 2018/19 financial year, the following Bills will be developed and these are South African Post Office SOC Ltd Amendment Bill; State Information Technology Amendment Bill and the State ICT Infrastructure Bill.

4.29. Proposed Legislation Emanating from White Paper (Policy)

In the main the legislative amendment activities that will be undertaken to support the implementation of the White Paper include:

- Legislative amendments: amendments to existing laws within the portfolio of the Ministry of Telecommunications and Postal Services;
- Legislative amendments done in collaboration with the Ministry of Communications amendments to existing laws such as the Electronic Communications Act, 2005 co-administered by the Minister of Telecommunications and Postal Services and Minister of Communications;
- Legislative amendments to other laws outside of the Ministry of Telecommunications and Postal Services, such as the ICASA Act, and legislation affected by Rapid Deployment Policy, with the concurrence of the responsible Minister;
- Provision in legislation for establishment of new Institutional Mechanisms such the Inter-Ministerial Committee on Digital Transformation, the Coordinating Mechanism for ICT RDI and the National e-Skills Council.
- Establishment of new institutions such as the Digital Development Fund and the ICT Sector Commission and Tribunal.
- Further scoping and additional research required in respect of policy issues such as electronic signature framework. Therefore some amendments will only be possible in a second phase once the required research has been concluded.

Further, the Department has identified and commenced with the development of the following Bills for the first phase of amendments:

- Ikamva National e-Skills Institute (iNeSI) Bill;
- Postal Services Amendment Bill;
- Digital Development Fund Bill;
- ICT Sector Commission and Tribunal Bill;
- Electronic Communications Amendment Bill ; and
- Electronic Communications and Transactions Amendment Bill

iKamva National e-Skills Institute (iNeSI) Bill

To create a new Act to establish the iKamva National e-Skills Institute (iNeSI) as:

- Juristic person and public entity in terms of the Public Finance Management Act (PFMA);
- National catalyst, and change agent for developing e-skills capacity in the country;
- Multi-stakeholder collaborator with all stakeholders across government, business, education, civil society, etc so as to better coordinate digital capacity building efforts across all spheres of society and aggregate efforts to enhance the impact;
- Collaborator with relevant Post School Education and Training Institutions to offer e-skills programmes and maximise the use of existing infrastructure and resources to ensure that education and training respond to the demands and needs for e-skills in the country;
- Driver of innovative research focusing on e-skills with links to a network of public and private universities locally and internationally.

Postal Services Amendment Bill

- To amend the Postal Services Act, 1998 to provide for a revised licensing regime; to replace the current registration regime for postal operators in the unreserved market and provide for its efficient and effective regulation by the Regulator;
- To provide for the regulation of Extra-Territorial Offices of Exchange; and to provide for technological advancements and expansion of services by the Post Office,
- To provide for the national addressing policy approach for the assignment of addresses particularly in the rural areas and the development and maintenance of national address database, to provide for the a clear process for the development of philatelic products, provide for market definition and regular reviews to ensure effective competition in the postal services sector.

South African Post Office Amendment Bill

- To amend the South African Post Office SoC Ltd Act so as to provide for the expansion of services rendered by the Post Office;
- To ensure universal service and access to postal services, and extend financial inclusion and facilitate digital access;

It appears that these Bills have not yet factored in any provision that will help South Africa deal with the regulatory framework governing the role of OTT players such as WhatsApp.

Notwithstanding this, even in the short term, there appears to be no solution to the regulatory framework on OTTs. This is because on 16 January 2016, the Parliament of the Republic of South Africa embarked on its own process to establish various policy amendments and or regulatory options to govern the OTT services in South Africa (Portfolio Committee on Telecommunications and Postal Services 2015: 1).

According to its public hearing notice published on 11 December 2015, the Portfolio Committee on Telecommunications and Postal Services was conducting public hearings on South Africa's Over-the-Top (OTT) policy and regulatory environment. According to the former Chairperson of the Committee, Ms Mmamoloko Kubayi, now Minister of Science and Technology, "the prevalent use of networked, wireless technologies as well as the OTT services has and will dramatically shape the ICT sector in South Africa. In addition, ICT ecosystem plays a pivotal role in information gathering and interactive communications that are of value to business or professional life" (Kubayi, M. 2015 Personal Communication).

The Parliamentary Committee was calling for written submissions on the matter by all affected parties. Submissions should focus on the following aspects:

- Necessary Policy interventions on how to govern the OTTs;
- Regulatory interventions on the guidelines to regulate OTTs;
- Impact of OTTs on competition; and
- Is there a need for the OTTs to be defined as telecom services (voice or data) or telecom infrastructure, and thus whether they should be subject to licensing and regulatory obligations (such as legal intercept and emergency call access) or not (Portfolio Committee on Telecommunications and Postal Services 2015: 1).

It is now common knowledge that these public hearings did not heed any result except of course to equip Members of Parliament to better understand the complexity involved in regulating OTTs.

Chapter Five: Data Analysis and Conclusion

5.2.Introduction

The Objective of this chapter is to discuss the results or the research findings. This chapter elaborates the importance of each sub-theme of what the consumption and use of WhatsApp means to my research subjects both in terms of what is identical between employees of the same sex, and the everyday lives meaning of WhatsApp between employees of different sex.

The chapter will also link or de-link the relationship between the results of the research and the initial assumptions which the research sought to prove. At the same time, the research will also link findings with initial assumptions and the key proponents of the active audience/ ethnography theoretical framework and propose future studies that may be embarked upon in the context of WhatsApp as 'text'. In addition, the Chapter will highlight some of the challenges and weaknesses encountered during the completion of this research.

5.2.Key Findings

5.2.1. WhatsApp Groups: What are the reasons why employees use WhatsApp?

‘I use WhatsApp because it’s cheaper and is a convenient way of communicating with my family, friends and colleagues’.

Perhaps the prime reason why many employees in Parliament used WhatsApp relates to the fact that it is the quick and easy way to communicate with others. Other reasons are about price, that WhatsApp is affordable and cheap, and conversation flows easily as messages are received immediately, when parties are online, or when one is offline and if they have seen your message. The issue of affordability was considered to be factor as employees do not limit their communication to colleagues who can easily afford costs. Employees felt that communicating is only effective if its intended beneficiaries are able to receive and respond as well. Employees wanted a communication medium that is ‘real-time’ which is affordable to many important people in their everyday lives, their parents, their own ‘employees’ (people who they have employed to look after their houses and or child(ren), as well as exchanging photos of themselves and their children.

They also indicated that WhatsApp is also effective in conducting group chats. The point was made that in many instances employees spent many hours at work and miss out on the outside world which relates to general information about their families back home. It was therefore indicated that an employee can create a group with family members during working hours to discuss in real-time issues that are affecting their family members, to draft a family programme of activities such as planning traditional ceremonies, the coming-out of manhood, family holidays and festive season's activities.

Other findings include a sizeable number of respondents who felt that the use of WhatsApp was rather 'addictive and therefore very dangerous', as they constantly check on their WhatsApp during the day. This, according to them, took too much time.

5.2.2. WhatsApp Groups: Security reasons

Many women respondents indicated that their WhatsApp usage during office hours was a security alert measure. These employees are connected to WhatsApp neighbourhood-watch groups which are concerned with reporting any suspicious or abnormal activities such as suspicious passers-by or potential criminality in the areas where their properties are located. This was shared, however, only by employees who reside in the "crime high" Cape Town suburbs of Table View and Kuils River.

It is therefore important to unpack these loaded messages both in relation to what the responses signify in terms of their innocent response, as well as linking these responses to Hall's active audience paradigm. At face value, these are employees who are concerned about the safety of their families. However, Hall says media messages are never innocent but loaded with different messages and meaning and therefore a negotiated meaning is required. Hall also argues that texts are polysemic. Audiences are involved in "semiotic work" in decoding the meaning of media texts; however, the ability of an individual to interpret a media text is shaped by the specific social circumstances or situation in which he or she is located.

In this regard these employees' use of WhatsApp amounts to them being virtual security activists or an "active audience" which has resulted in the formation or the emergence of a 'virtual public sphere'. While the African culture identifies men as protectors of their families, many black unmarried females are very concerned about the safety of their properties, and this may signify a new era where even the rigid African culture is coming to terms with the 'fall of masculinity' in favour of or the emergence of a new black woman - a black female middle-class who can act as

protectors of their homes.

It is important, however, to also unpack the desire by females to feel safe in this country. In 1994, South Africa's system of apartheid was formally abolished (Gould & Lamb, 2004:7). With the construct of the new South Africa, a number of measures were introduced to ensure that all South African citizens feel and are safe. In particular, sections 11 and 12 of the Bill of Rights in the Constitution of the Republic of South Africa protects the rights of all people in South Africa, gives them the right to life, and the right to be protected from violence (Constitution of the Republic of South Africa, No.106, 1996).

In addition, Section 7 (2) of the Bill of Rights stipulates that the state must respect, protect, promote and fulfil the rights in the Bill of Rights. Further, the Centre for Human Dialogue (2006:3) reports that under the international human rights law, states are not only responsible for the actions of their agents (military and law enforcement), but they also have a duty to prevent patterns of abuse committed by private persons. Failure to take effective steps to protect individuals can amount to violation of human rights law.

Similarly in 1996, through the then Organisation of African Unity (OAU) now the African Union (AU) African countries committed themselves to investigate ways of reducing crime including small arms proliferation. In 2000, the OAU countries adopted the Bamako declaration on an African position on the illicit proliferation, circulation and trafficking in small arms and light weapons. (Gould & Lamb, 2004:227). In the same year, South Africa ratified the Southern African Development Community (SADC) protocols on the control of firearms, ammunition and other related matters.

The SADC protocols commit SADC states to a legally binding regional small arms control policy to be implemented throughout the Southern African Regional Police Chiefs Cooperation Organisation (SAPCCO). SADC protocols require states to enact legislative measures to control ownership and use of firearms, and to establish regional information databases.

The rights stipulated in the Constitution are therefore aimed at ensuring safety by protecting citizens and obliging the state to provide adequate security from those who perpetrate crime. Whilst the constitutional changes from a National Party rule to a constitutional democracy is noted, however, the legacy of half a century of repressively enforced racist governance left a large segment of South Africa's society impoverished and brutalised. South Africa is daily faced with crimes of violence where the use of firearms plays a central role (Minnaar, 1998:1).

Unfortunately, crimes committed with firearms remain at their highest level because of the continuous influx of legal firearms into wrong hands. The author is of the opinion that the consequence resulted in South Africa as having one of the world's highest rates of armed violence and crime per capita. Minnaar (1998:1) is of the opinion that ready availability of guns is the central cause of violent crime in South Africa. He argues that people are still embedded in the culture of resolving conflict situations using firearms. Minnaar emphasises the fact that proper control and the reduction of the current proliferation of firearms in South Africa, and its linkages to violent crime, are critical to the establishment of stability and ensuring that people feel secure and safe in their neighbourhood (Minnaar, 1998:2).

In addition, in South Africa there are more civilian firearms than police and military firearms combined, and the number of civilian firearms lost and stolen is also high (Gould & Lamb, 2004:201). Minnaar argues that the high level of civilian ownership and consequent loss and theft present a challenge to the South African Police Service (SAPS) in their attempt to control the proliferation of illegal firearms in South Africa and the African region. Statistics indicate that of the 208 090 firearms reported stolen or lost between 1994 and 2003 nationally, only 153 462 were recovered, meaning that a total amount of 54 628 of those firearms were still not recovered by 5 September 2003 alone (Chetty, 2000:39).

The fear factor and the need for security to be beefed up in the country, has resulted in the use of WhatsApp to communicate with neighbours when employees are at work or away on official duties. The questions for these employees who reside in Cape Town, with places like Mannenburg and Nyanga often named as the country's most notorious crime havens, is who is in possession of those unaccounted firearms, and what are they doing or planning to do with those firearms?

Moreover, one of the basic needs of any community is the need for safety and security. This is not possible unless integrated proactive actions occur with the cooperation of all role-players in any community. As noted by Pheiffer, (2013:12), "crime is unwanted in any society because it brings about fear, anger and hatred. As people living in a world of constant change, they tend to strive for innovation. The SAPS and all relevant role-players become partners in the fight against not only crime, but also community problems that threaten the well-being of inhabitants".

Despite the levels of crime in the country, employees have demonstrated what Hall describes as active-audience through their use of WhatsApp as a means to fight crime and guard their homes or properties. The active audience model of the employees is not just limited to Hall's theory, however; it is a practical demonstration of what Felson and Cohen (1980:392) describe as protection; "any spatio-temporally specific supervision of people or property by other people

which may prevent criminal violations from occurring”. Any person who can prevent the successful completion of a crime could be described as a protector.

The use of WhatsApp by these employees brings about a sense of ownership or reconstruction of safer communities through virtual community policing. Arrington (2007:162) implies that “territoriality or territory reinforcement asserts that we, like animals, are territorial creatures. The ownership of the territory or property needs only be perceived”. Communities therefore need to persist in taking back their communities and accept personal responsibility in the fight against crime. The need for safety and security concerns every person, in any community and in any organisation. To keep crimes under control, police need the cooperation of citizens who live in the places where crimes occur. Local communities are the central institution for crime prevention, the stage on which all other institutions perform. Families, schools, labour markets, retail establishments, police and corrections must all confront the consequences of community life.

Similarly, Doran and Burgess (2012:61) state that “while traditional policing models have failed to acknowledge fear of crimes, many models now see fear of crime as fundamental to proactive policing and crime prevention”. All people have a desire to live life without fear and therefore expect of authorities to ensure their safety. Preventative actions focus on stopping events from happening or someone from doing something, consequently the core of crime prevention is dealing with the cause of crime. Crimes are influenced by various factors, like family, social and economic risk factors that give rise to persistent involvement in crime. According to Plant and Scott (2009:33), there is substantial evidence that the most effective crime prevention interventions which cut across agencies and institutions are found at local government level, such as community organisations, police, families, social services and schools

Unbeknown to these employees, their usage and understanding of WhatsApp brings them close to government strategy of crime fighting. Government’s new approach in fighting crime is both a multi-agency and multi-party initiative. In particular, it requires the development of wider responsibility for crime prevention and a shift in emphasis from reactive crime control which deploys most resources towards responding after crimes have already been committed, towards a proactive crime prevention which is aimed at preventing crime from occurring. It is therefore interesting to note that the Western Cape Provincial Government’s Policy Report (2012) further states that crime should be addressed in a multifaceted approach and partnership is the core ingredient for effective and sufficient crime prevention strategies. Cooperation in crime prevention is important to enhance the process of *growing, sharing, delivering and innovating together* as neighbours which is the motto of the Cape Winelands District Municipality’s Integrated Development Plan (CWDM IDP, 2011/2012).

It is important to note that while Hall argued for the active audience paradigm, however, the use of WhatsApp by employees to offer protection and security to homes and communities demonstrates an emergence of the new ‘virtual public sphere’, and these ‘communities of interest’ offer a new definition of the active audience and redefine community oriented initiatives. The use of WhatsApp consequently connects to Habermas, who theorises the ‘public sphere’ as a common meeting point for the debate through which public opinion could be formed. Through participation in such debate, citizens attempt to articulate some of society’s most pressing issues bridging the realms of the private and the state (Malila, 2013:31).

For Habermas this entailed separating the private from the public, and establishing a mode of discourse ‘rational critical debate’ – through which citizens could thrash out issues of public concern. The public sphere could be seen as a site through which the state is put in touch with the needs of society and as a regulatory institution against the authority of the state (Habermas, 1989: 31; Garnham, 2007: 206). In the digital age, the ‘public sphere’ concept has been used to describe OTTs such as WhatsApp. In the same vein, WhatsApp has become a world-wide public sphere linking employees who are generally away from their ‘home provinces’ in search of better work opportunities in Cape Town or Johannesburg, as a platform through which provisional, business and professional conversation takes place.

Elsewhere, similar community-orientated initiatives have achieved greater social cohesion. For instance, according to Walter, ‘community-orientated prevention programmes are reasonably effective in reducing the frequency and intensity of future delinquent behaviour (Walter, 1992:146). The Chicago School of Criminology held that high crime areas are characterised by social disorganisation and lack of community cohesion (Walter, 1992:146). The author believes that social disorder and crime will be high in neighbourhoods beset with low community solidarity and less frequent social interaction. Such disorder and crime levels tends to be much less common in areas where residents show affinity for their neighbours, exhibit exude a sense of responsibility for activities going on in the community, and display a willingness to intervene in situations where crime is occurring (Walters,1992:147). A neighbour who exhibits a sense of responsibility and knows what is going on in the community, will be in a better position to intervene by objecting when an at-risk individual within their community wants to own a firearm. This is all attributed to the use of media which WhatsApp as on OTT is part of.

It states that media is a potent force in influencing public perception on important issues such as politics, culture, environment, public views on crime and crime reduction (Rogers, 2006: 138). Walters (1992:148) is of the view that media, in the form of television, movies, newspapers or

magazines, contributes to the modification of criminal and non-criminal action. On the other hand, government's crime fighting strategy is premised on the basis that 'crime prevention has become a clear concept and has gained massive community support through initiatives such as structured media (Crime Prevention Strategy 2004-2007:6).

5.2.3. WhatsApp Groups: Females Photos of Family and friends

One respondent said: "I work and stay in Cape Town but my daughter stays with my mom in Limpopo ... so my mom and other family members use WhatsApp voice notes for me to hear my daughter's voice as well as use WhatsApp video call for me to see my daughter, which is the most cheapest way of Skyping and which financially accommodates everyone in my family".

Many women respondents indicated that they use WhatsApp during office hours to keep abreast with what is happening at home with their child-minders, communicate with school teachers, and also crèches. They use WhatsApp voice notes to 'keep in-touch with their toddlers' back at home. In addition, they also communicate with their distant relatives by sharing photographs of family members and boyfriends or partners.

5.2.4. WhatsApp Groups: Females' organising their Children's lives

'I use WhatsApp to communicate with my Child's school teacher and to other parents as we have a parents group chat.

I use WhatsApp to organise my child's birthday party, send invites, organise play dates for our kids, and that is how other parents too have also invited my child to their children parties "

Many women respondents indicated that they use WhatsApp during office hours to keep abreast with what is happening in the everyday lives of their kids' school activities. They use WhatsApp to communicate with other parents whether it's about inviting other children if one child has a birthday party, announcing and scheduling kids' sleep-out visit to other parent's kids and so on.

A 2006 Harvard Graduate School of Education Research Brief, entitled *Family involvement promotes school success for every child of every age*, found that family involvement helps children get ready to enter school, promotes their school success, and prepares youth for college (Harvard Family Research Project 2006:15). It also argues that parent volunteers offer a huge resource and support base for the school community while showing their kids the importance of

participating in the larger community.

Similarly, the 2008 research entitled '*the Importance of Teacher/Parent Partnerships*' noted that the 'function of a good parent-teacher relationship is much more than just a vehicle for status reports from teacher to parents on a child's performance or behaviour. It is really a partnership providing two-way information flow from the teacher to the parents about the child's classroom achievements and persona and from the parent to the teacher about the complementary elements in the home environment. "It provides the mechanism for the teacher to invite, and support, the parents' active participation in the child's education in the home environment. And it can provide the link between classroom learning activities and at-home learning activities"(Loughran, 2008: 35).

Other research has shown that parent involvement in education benefits not only the child but also the parents and teachers (Eldridge, 2001:22). Therefore, the importance of a good parent-teacher relationship has been well documented. Communication with parents is of paramount importance as most parent's lives are impacted by a very fast paced world and children are caught in the middle.

Some of the female respondents argued that most of the schools in Table View and Kuilsriver area which their children attend have an online management system as well as the WhatsApp group Chat which both the teachers and parents use as an 'instant medium of communication. Whilst the WhatsApp group does not allow parents to see their children's progress, however, it is used to communicate tasks such as homework, upcoming orals, calendar of events of different sporting codes, and used by teachers and parents to recommend to each other books that children must read.

These parents also found the WhatsApp group were useful because if "I am stuck with an Afrikaans word or a sum, I just send a WhatsApp message to our group, and one of the parents will be able to assist and I will look clever to my child, I cannot say I don't know, when I have this resource" .

Others highlighted that they have formed 'good friendships' with the other parents on the basis of meeting through various children's activities such as 'play-dates, birthday parties, and sleep-in' which have all been done through sending communicating on WhatsApp about their children's desire to play or visit each other on holidays or weekends.

WhatsApp was also a useful platform in which parents sent photos of birthday celebrations, play-

dates to their parents back *home*, meaning outside the Western Cape, in order for the extended family members to see what their grandchildren were doing in Cape Town. Whether the purpose of sending photos was really about documenting the child's birthday as not all cousins could be bussed to attend the birthday party, or whether the actions was meant to signal the status of a black middle-class family whose children's birthday parties are littered with multi-racial party goers, is a mystery that none of the respondents were prepared to respond to.

Notwithstanding the above, it is, however, now clear that no parents in a nuclear family setting or single parent today is immune to societal pressures from the media and elsewhere to accelerate their children in many different ways. The competition for getting into the 'proper schools' and performing at the top of every scale has never been more demanding. This again points to the hyper-active audience nature of these female respondents; also it connects with Hall's concept of the active audience which has been significantly transformed by these parents-to-parents and parents-to-teacher communication through the use of WhatsApp.

On the contrary, male respondents were not really in constant communication with schools and other parents except when they had been called by their female partners to 'intervene in cases where their children were in trouble or school teacher had tried to be funny with their kids'. This again shows that there is a gender difference in the use and consumption of WhatsApp; that women were more likely than men to use WhatsApp for recreational and developmental activities of their children's lives. However, men tended only to be required if there was trouble. This indicates that females were more burdened with a lot more of their children's school activities compared to men.

5.2.5. WhatsApp Groups: Female Weight loss Competition

'My cousin lives and work in Australia with her husband, we are both on Herbalife and I use WhatsApp to share my weekly or monthly weight loss or the duration of the 3 months programme that I am on. We also exchange photos so that she can see how I have lost so that we are both motivated by keeping each other informed via WhatsApp'.

Many women respondents indicated that they use WhatsApp during office hours to share best healthy diet tips for their bodies and general recipes. In addition, they also use this platform to 'open up' on their weight issues and challenges with their friends or family members who are not in the same province as they are. They indicated that they constantly send photos of each other after a week or two to see how one has lost weight. Therefore this platform has become a virtual diet boot-camp for many female employees.

Marshall McLuhan predicated that the world would be a global village as early as in 1964. In this context globalisation has been defined by researchers from different perspectives. In their essay entitled, *Globalisation/Anti-Globalisation*, the authors define globalisation as ‘an expanding scale with growing magnitude with deepening and expanding impact of transcontinental flows and patters of interactions’ (Held, D. McGrew, A.2003: 24), on the other hand, Martin Wolf calls globalisation an ‘irresistible and desirable force sweeping away frontiers while overturning despotic government’ (Wolf, M.2004: 55).

As noted in a 2015 study entitled *Impact of Cultural Globalisation on Africa*, attempts to conceptualise globalisation have resulted in diversity of world views. One school of thought contends that globalisation is destructive since the flow of information has been viewed as one dimensional without reciprocity, that the role of western media in propagating globalisation has created drawbacks of culture which does not take into consideration the values, the culture and norms of Africans. Others argues that globalisation is constructive, that it has increased economic prosperity, brought availability of foreign goods, and created a great market economy to such an extent that Africa stands to gain economically, militarily, politically as well as help sustain environmental development (Oyinade, 2015: 31).

The assertion that the use of WhatsApp is about sending photos and updating each other on weekly or monthly weight loss at a denotative level speaks of two women who are concerned about their health status. However, the deeper meaning is about the use of WhatsApp to facilitate a never-ending weight-loss competition between two cousins who are thousands of miles apart. It also speaks about how media in general and, perhaps, how cultural globalisation has successfully infiltrated the notion of a ‘full-figured African queen’ to desire a slender body shape. In fact, cultural globalisation is viewed here (‘through the lenses of WhatsApp update on weight-loss’ as the infiltration of foreign cultures into African culture, norms, values and the alteration of African social structure.

As Held et al (1999: 28) note, culture is the social construction, articulation and reception of meaning. “Cultural globalisation has created unparalleled inequity throughout Africa, affected the behaviour of people in numerous ways, and forced many people to assume a lifestyle of self-interest, selfishness, individualism and made people develop a psychopathic devotion and appetite for foreign films, foreign goods, foods, foreign way of life, foreign music, attitude and behaviour which has always been foreign to the broader African community”(Oyinade, 2015: 32).

Whilst not everything highlighted above applies to the weigh lost challenge, however, the appetite

to lose weight is foreign to the some African community especially in the sub-Saharan, Central and Western Africa (except in North Africa (Algeria, Egypt, Libya, Morocco and Tunisia) whose naturalised social construct overwhelmingly favours an ‘African Queen’ or a full-figured women. It is on this point that the researcher agrees with different authors who have noted that globalisation can either be empowering, or a coercive invasion that may lead to disintegration or ‘unbundling’ of identity and the spirit of culture. The importation of media content and programmes to developing nations from Western nations could be seen as cultural imperialism theory as well as acculturation theory. Tunstall (1977) observed that indigenous tradition and tribal cultures are being displaced and booted out of existence by Western media products that continue to bombard Africa with commercial products, especially from America, and exposing people to lifestyles that are not necessarily easily attainable. This is not to say all things must start in Africa nor does it mean that anything that emanates outside of the African continent must be rejected, for there has been a number of inventions which has been gladly accepted in Africa such as motor vehicles, computers, mobile phone etc.

Secondly, the image of an “ideal” woman presented in the mass media is harmful not only to the black cultural construct, but it has resulted in an increasing rate of cosmetic surgeries in an attempt for women of all races and colours to achieve the ideal of a ‘perfect woman’, the skinny supermodel ideal which may adversely affect female self-image. This has a potential to inflict a psychological damage or low self-confidence if women fail or if they do not achieve the deal image of what women should look like as presented in many mass media. In a study entitled ‘*the Objectification of Women in Mass Media*, Berberick (2010) argues that “the representation of women in the media has always been exploitative. It has, throughout the years, reduced women to being nothing more than objects to be won, prizes to be shown off, and playthings to be abused. It has also created a definition of beauty that women compare themselves to. Also, men compare the women in their lives to what they see on television screens, in magazines, and on billboards. Both the self and society has suffered because of this objectification, sexism, exploitation and assessment” (Berberick, 2010:2).

The author goes on to point out that when a woman gazes at an airbrushed beauty wishing for the model’s thighs or slender hips she fails to register that the image she sees before her is not real. Society’s understanding of the images they see seldom takes into consideration the “beauty” they see are fabrications. These images are designed by graphic artists commissioned to change appearance and stimulate desire. The deception in these images goes largely unnoticed, which leads women down a road of destructive self-comparison (Berberick, 2010:9).

At issue here is that media culture also provides the materials out of which many people construct

their sense of class, of ethnicity and race, of nationality, of sexuality, of “us” and “them.” Media culture helps shape the prevalent view of the world and deepest values: it defines what is considered good or bad, positive or negative, moral or evil. ‘Media stories and images provide the symbols, myths, and resources which help constitute a common culture for the majority of individuals in many parts of the world today’ (Kellner, D (1995:12). Media culture thus induces individuals to conform to the established organization of society, but it also provides resources that can empower individuals against that society.

Author and feminist Susan Brown-Miller’s account of her journey to womanhood is a prime example of the pressures of media objectification of woman in society. Brown-Miller refers to a woman’s quest for self-love and acceptance as “obsessive concentration,” describing the inhumanity of trying to look a part that does not exist (Brown-Miller, 1986:25). She argues that the war against women is not only in photographs, it is everywhere and it is supported, even administered, by an ever-present media. How, Brown-Miller asks, can she be immune to the “national celebration of this season’s movie star sporting this season’s body, to the calendar art in the neighbourhood gas station, to the glamorous model in the high-fashion photograph, to the chance remark of a lover, the wistful preference of a husband, the whistle or the unexpected hostile comment heard on the street?” (Brown-Miller, 1985:25).

This situation is comparable to South Africa, where famous black celebrities like Minenhle ‘Minnie’ Dlamini-Jones, ‘First-lady of Sports’, Ms Carl Tshabala, presenter of SuperSport, Pearl Modiadia, of Metro FM and SABC Television fame constantly lose weight and their trials to do so are made public. Therefore, Brown-Miller makes a key point that the ideal is illustrated everywhere. It is inescapable and due to the recent ease of access to all forms of media in our increasingly visual culture, such images have the ability to reach and affect an even more diverse array of viewers. The media objectification of woman is widespread in Internet use, the advent of “reality television”, an endless stream of advertisements showcasing before and after photos of people losing a large portion of their body mass by taking a pill, and modern music videos that portray women wearing hot pants and jiggling their “booty” in front of the camera.

Many argue that this is actively encouraging women to take dangerous measures to “look good,” as defined by an unrealistic media crafted ideal. Many women find they are not happy with themselves or their bodies and the media machine is constantly pushing images that refuse to let women find peace.

Similarly, in a study entitled, *Media Contribution to African American Girls* in which the author observed black womanhood portrayals in the media, it found that “African American woman were spending more than 67 hours per week immersed in Black media (television, music, music videos,

media identification, importance of being attractive, appearance attitudes, and racial identity” (Gordon, 2008:248-250). The results of this study provide evidence of connections between media messages and girls’ “acceptance of attitudes emphasizing the importance of appearance for girls”.

In addition, in studying various types of ideology present in magazines, particularly *New Woman* (NW) and *SHE*, scholars Eggins and Iedema discovered that the magazines set a standard for women to follow or ideals to aspire to. Thus they concluded that the female has a set of guidelines that instruct her how to behave, when to wear make-up, how to dress, what her body should look like, and how to treat her lover. They assert, “the different coding orientations displayed by the magazines instantiate not merely different interests, but divergent views of acceptable and accepted female behaviour and notions of femininity. The magazines preoccupation with the negative consequences of transgression defines all that which deviates from the norm as other” (Eggins and Iedema, 1997: 189).

Whether it is the pressures of cultural and global imperialism, the choice of women or the ‘new African woman’ that favours skinny and slender body, one thing is clear, as noted by Ang: texts can generate multiple meanings because people make their own history and culture but under conditions not of their own making (Ang, 1991:13). Women participants in this study do not just use WhatsApp as a means to communicate (which is arguably the dominant meaning of its use): for them it is about using this platform for their own health and beauty issues.

Their actions and activities on WhatsApp fits perfectly with Hall’s active audience paradigm. Because the process of understanding and decoding the message is open to a range of interpretation, Hall argues that texts are polysemic. Audiences are involved in “semiotic work” in decoding the meaning of media texts; however, the ability of an individual to interpret a media text is shaped by specific social circumstances or the situation in which he or she is located. Furthermore, in support of Hall, Ang contends that active audiences may resist or challenge media texts by acting against the dominant ideologies of the ruling class, and they do not operate within the confines of the preferred reading or confines of what everyone else agrees with. In this regard, Ang argues, readers are able and capable of creating their own meanings, making them not just the victims of manipulation by media texts, rather than absorbing pre-given meanings imposed on them. While it is true that under the active audience paradigm, audience should be able read and make sense of text but not every women or audience has this capacity.

5.2.6. WhatsApp Groups Males and Female Work-Related Announcements

Many respondents, both males and females, indicated that they use WhatsApp during office hours to communicate with their Members of Parliament in their various Committees. WhatsApp groups were set up to communicate important details such as reminding MPs about venues of meetings, presentations and research documents, committee minutes and reports. It was emphasised that this information is usually communicated via formal and other means as well (notably e-mails and SMS), but WhatsApp was used as an additional tool to ensure Members have access to these documents and remember appointments.

5.2.7. WhatsApp Groups: Male ‘Projects’ Competition

Perhaps the most controversial finding of this dissertation is the male “Projects” competition. Many male respondents indicated that they use WhatsApp during office hours to communicate; however, WhatsApp usage is elevated prior to and during Committee Oversight Week. Four times a year, Committee Oversight Week occurs, when all the various committees visit one of South Africa’s nine provinces. The various parliamentary committees do not necessarily all visit the same province at the same time, but each committee visits a different province at least four times a year. In addition, if new legislation or amended legislation is the pipeline, the relevant committee will visit the provinces to conduct public hearings. Committees are put up in a hotel during this period, and sit or work every day. During Oversight Weeks the committee visits different projects in the province, consulting with associated communities and stakeholders.

Male participants in the project indicated that on leaving for these weeks, a WhatsApp group Chat was created at the Airport, where male committee members compete and brag about the number of “projects” (that is, women) that they will have seen or dined out and eventually had sex with for the duration of the oversight week.

These women, often referred to as “projects”, includes “girls in the townships, students, and those in the corporates” and appears in their opinions to have accounted for the pleasurable part of the oversight visit. In each of the Oversight Weeks, these employees would have sex with women and each sexual encounter is allocated points once. If the oversight visit is over a period of 5 working days, men would be ranked in accordance with the multiple sexual encounters they had with different women in that province. This ‘encourages’ men to have more women to prey on if there are to increase their scores, and the encounters must be evidence based, either through

photographic evidence, or through a physical visit to their room by one of their colleagues, or both, as evidence is necessary for the “ranking”.

Various rules apply, for example, the same woman cannot be counted twice even if sex with her occurred on more than one occasion, over a two year period. Some of the evidence includes sending photos as a form of evidence of the existence of projects and such information is then used to rank males from “ordinary students” of the game to “Professoriate of the game”. In addition, it was indicated that such group platforms are deleted every Friday or the morning of the last day of the oversight visit, in order to ensure the privacy of all the individuals involved.

Recent research and literature (of which there is not much), as well as the latest reports and surveys on pornography and public health, show that the pervasive depiction of softcore pornography in popular culture, and its easy accessibility via streaming and mobile phones (WhatsApp) allows people to derive sexual stimulation and gratification from the acts of prostitution that they portray. In the 2010 study entitled *How Porn Has Hijacked Our Sexuality*, Dines notes that since the 1950s, “the distribution and availability of pornography has become increasingly normalised” (Dines, 2010). The underlying effects of this abovementioned WhatsApp use during oversight visits by male employees and their conduct of having sex with women and ranking women through WhatsApp is an indication that illustrates what some authors call normalising the notion that women are sex objects (Brown and Engle, 2009:151).

It is also interesting to note that whilst these ‘projects games’ are carried out by employees and members of society, South Africa has one of the highest cases of HIV and AIDS in the world, and as such these employees are exposing themselves to the world of STIs by their increased engagement in sexual behaviours with ‘strangers’. The latest information by government’s Statistics South Africa affirms that while there has been a decrease in the number of cases of HIV and AIDS in the in past 15 years, South Africa still has one of the highest global cases of the virus. The 2017 Mid-Term Statistics noted that ‘the total number of persons living with HIV in South Africa increased from an estimated 4,94 million in 2002 to 7,06 million by 2017. For 2017, an estimated 12,6% of the total population is HIV positive” (StatsSA, 2017:03).

This means that approximately one-fifth of South African women in their reproductive ages (15-49 years) are HIV positive. HIV prevalence among the youth aged 15–24 has declined over time from 7,3% in 2002 to 4,6 in 2017. The rate at which the population in South Africa is being infected is estimated to be declining from 1,9% in 2002 to 0,9% in 2017 (StatsSA, 2017:03).

Whilst my participants assured me about their condom usage, what has been ‘naturalised’ is the increased rate of casual sexual behaviour through using WhatsApp as the medium through which

the projects game is facilitated. The risk that this game brings is the many unintended consequences for participants and their partners, both those at home, and those women who have already had sex with them (who are now old statistics), as well as those who are yet to be engaged with by these employees in different provinces. In a separate but similar study, Wingood et al note that exposure to X-rated movies among Black females between 14-18 years old was associated with being more likely to have negative attitudes towards using condoms, to have multiple sex partners, to have more sex more frequently, to have not used contraception during their last encounter of intercourse, to have not used contraception in the past 6 months, to have a strong desire to conceive, and to test positive for chlamydia (Wingood et al, 2001: 1118)

5.2.8. WhatsApp Individual: Use of the platform as form of courting females

Some female respondents indicated that whenever a male colleague requested their Cell phone numbers, ostensibly for work purposes, this was usually followed by just two letters - 'Hi' - which male office counterparts used as an 'ice-breaker' for a non-work-related conversation. They felt that unlike BBM which required pin exchanges, WhatsApp did not have a pin which meant easy access to other employees without their consent. Women participants felt harassed and victimised by these unwelcome attentions. This was lamented as a weakness in the WhatsApp platform.

5.2.9. WhatsApp Individual: the virtual disturbance or distraction

Both male and female respondents indicated that the use of WhatsApp was sometimes a "distraction". They cited issues of WhatsApp as an addiction, where even when you are in the company of friends or in a party with friends, you still find yourself spending more time with your virtual friends than those who are in close physical proximity to you. An example was made that people communicate with friends who are not in the same party they are attending about what's going-on in the party, thus communicating to friends who are in attendance at other parties.

5.2.10. WhatsApp: Social Media Policy and Labour Relations Policies

Both male and female respondents indicated that they used WhatsApp to communicate with their line function managers. This communication included requesting approval to take leave, notifying managers if they were stuck in Committee which might require that after-hours transport for employees working late be arranged, or asking for clarity on issues or answers to questions. In addition, the employees also confirmed that some of their managers also instructed officials using this platform. This 'employee-supervisor' WhatsApp communication occurred as a result of some

of the employees' supervisors being active on this platform, and not because of any knowledge of social media policy or Human Resources policies that catered for formal-business communication to be conducted through the use of WhatsApp. In this regard, all respondents indicated they did not know whether Parliament allowed such communication in any of the institution's social media.

5.2.11. WhatsApp: At work I fail but socially I thrive

The question as to when WhatsApp is used the most is a contested issue. Some employees, especially females, indicated that they used WhatsApp most during the day at work, as they had many chores and other activities to deal with at home, which included preparing meals, assisting with kids home-work and so on. Female employees who commute by public transport spent more time on WhatsApp as a means to escape morning and afternoon traffic. They also indicated that being active on WhatsApp and or fiddling with their phones shielded them from 'curious looking male passengers'.

On the other hand, the converse is true for men: they used WhatsApp during and after working hours to catch-up with their colleagues and to plan for weekend activities. It was indicated that such plans included planning their lunch hour, social activities including scheduling visits to watch sports games, and going out, usually night clubbing. Most male employees admitted to using WhatsApp when travelling outside Parliament, to look for "projects".

Male employees also felt that they were generally not happy with aspects of the transparency of WhatsApp, especially its timeline feature. This feature displays in an 'open-access way', when the last time a user has logged-in on this platform. This was not favoured by some men, who found this problematic to their relationships. One respondent argued, how do you explain being away from your partner and you have been on WhatsApp until the early morning, when you do not spend as much time on WhatsApp when you are at home?

Some respondents said, one day, the WhatsApp timeline could be a source of divorce or break-up in many relationships. Others felt that WhatsApp was effective in communicating with their spouses at night, as some feared to answer and talk over the phones at night. This category of respondents argued that communicating via WhatsApp was the only 'form of monitoring' whether or not the other partner was busy doing other things while away on business trips, and they did not mind.

"For instance, you have going to have explain to me why do you take more than 5 minutes to

reply to my messages ... I can see when the message has been read unlike the traditional SMS...in this case if you are in the company of someone they will get bored because they will be not enough time to talk to them and still concentrate on the WhatsApp conversation.”

5.2.12. WhatsApp: Tried voice call on this medium and it did not work

Both male and female respondents indicated that they were disappointed with WhatsApp’s Voice Call facility. Beside the fact some of the respondents did not activate their WhatsApp calls which meant that they could neither make nor receive calls, those who had used the function were not pleased with the quality of services, the constant buffering in the middle of the conversation, and often the bad connections. Only a few respondents had managed to make successful calls.

5.2.13. WhatsApp: Knowledge of OTT services Policy in Parliament

With respect to one of the hypotheses posed by this research in the beginning, in relation to whether or not Parliament had a policy on the use of WhatsApp by its employees, both male and female respondents indicated that they were not aware of any policy that govern electronic communication, especially the use of WhatsApp during office hours. They relied on the basis that some of their managers used WhatsApp. In analysing the electronic communication and telephony services policy of Parliament, there are three policies which appears a bit confusing to read. Does Parliament have an implicit policy that regulates the use of WhatsApp? The answers lies somewhere in the combination of these policies, perhaps not so much in what is written, rather what is left out and seems to be missing in the construction of these policies.

In its prologue, the Parliament of the Republic of South Africa’s internal policy, called *Policy on Electronic Network Security*, states the following. “The Secretary to Parliament recognises that effective computer security is a team effort involving the participation and support of every employee and affiliate who deals with information and or information system. Inappropriate use of computer facilities exposes Parliament to risks including virus attacks, computer systems or services” (Policy Management Unit, Institutional Policy Workshops 2013 undated). In addition, in Section 2 under the definition of Terms, the policy defines Electronic Communication as “communication by means of electronically communicated messages. Includes, but not limited to the use of e-mail, the Internet (in all its forms), the Internet and other means of electronic communication such as fax, SMS, WAP, telephones, cellular phones, voice mail and file transfer(FTP), etc”(Policy on Electronic Network Security 2013).

The word e-mail is described twice, one under electronic communications listed above and two

as a stand-alone with its own definition , which is defined as “electronic mail, a data message used or intended to be used as a mail message between the originator and addressee in an electronic communication”(Policy on Electronic Network Security 2013). Despite this, however, the *Policy on Electronic Network Security* applies to all employees and users as per section 5 under the Scope of Application. The policy’s purpose is to regulate the use of the electronic network system of Parliament in terms of Section 4.

With respect to one of the hypotheses posed by this research in the beginning, in relation to whether or not Parliament had a policy on the use of WhatsApp by its employees. Section 8.3(a) on Electronic Communication stipulates, “Electronic Communication must be regarded as formal” (Policy on Electronic Network Security 2013). The Policy on Electronic Network Security appears to be very confusing from the title to some of the definitions. The policy is not explicit in how Parliament as an institution regulates the use of WhatsApp as on OTT service. The closest’ guess’ that can be deduced from the policy is its reference to ‘etc’ which is subject to interpretation whether the ‘etc’ could be applicable to WhatsApp or not. The title of the policy itself refers to Electronic Network Security which could easily be misinterpreted to mean to the security of the backhaul infrastructure or hardware security instead of perhaps a much less-complicated wording of the title. It can be inconclusively argued that the institution does not regulate the use of WhatsApp by its employees as there is no specific mention indicated in the definitions of terms of the policy.

The other issue relates to the different formats in how diversely the three main policies on telecommunications and electronic communication of Parliament are crafted. In this instance, the Policy on Electronic Network Security differs completely from the way in which Policy on Electronic Mail System (E-Mail) is written. The Policy on Electronic Network Security also differs from the way the Policy on Telephony Services is written.

The latter policy provides for: “the regulation of electronic mail (e-mail) usage will minimise the inherent security risk on the e-mail system of Parliament. This policy provides a basis for the protection of information, specifically to maintain the integrity, confidentiality, availability and legal compliance of the information resources on the e-mail system of Parliament” (Policy on Electronic Mail Usage 2013). Perhaps it is important to state that Section 6 on the objectives of the policy is ‘to ensure that users use the e-mail facilities for authorised purposes’ (Policy on Electronic Mail Usage 2013). The only common thing between these two policies perhaps is that they are both focused on the security aspect of electronic communication rather than providing policy provisions on exact circumstances that would be deemed acceptable for employees to use WhatsApp for example. However, the only common feature between these two polices is they provide that ‘electronic communication must be regarded as formal’.

There are four key features of the Policy on Electronic Mail Usage which are absent in the Policy on Electronic Network Security. These features include a section on General Guidelines; Use of e-Mails for business purposes; Prohibited use; and Consent. Section 8.1.(a) on general guidelines stipulates, that ‘ the e-mail system of Parliament is provided to assist employees and users in carrying out the business of Parliament and must be primarily used for business-related purposes’. The guidelines serves an important purpose which is to educate employees about what is the intention of being provided with e-mail facilities as an employee, as well as measures that have been put in place to regulate when an employee is not permitted to use the e-mail system of the institution or how employees should treat undesirable e-mail that they receive. For instance, sections 8.2(a) and 8.2(d) of the policy states that the Secretary to Parliament will treat all messages sent, received or stored in the e-mail system as business messages’. The duration and frequency of personal e-mails must be minimal and not interfere with the duties of an employee or the duties of others and must not impact on the productivity of employees’ respectively.

The prohibited use on the other hand, puts restriction on the kinds of e-mails not permitted, for instance, section 8.3(a) warns employees that ‘the e-mail system of Parliament must not be used for the creation of distribution of any disruptive or offensive messages, including but not limited to offensive comments about race, gender, physical attributes, disabilities, age, sexual orientation, religious beliefs and practices, political beliefs, or national origin and pornography. User who receives such e-mails must report this to the relevant authority or the Section Manager: Information Communication and Technology’ (Policy on Electronic Mail Usage 2013).

Moreover, the policy gives the Secretary to Parliament powers to have unannounced/ random checks on what employees are doing with their e-mails. In this regard, section 8.6(a) says that ‘the user, by logging on, grants consent to the Secretary to Parliament to monitor and view his/her e-mails, network activity and all other electronic content in accordance with the applicable legislation’ (Policy on Electronic Mail Usage 2013).

It is very apparent that all three policies have gaps. In this instance, the Policy on Telephony services’ introduction read as ‘telephony services are used as the main medium of communication between employees and external organisations on business related matters’ (Policy on Telephony Services, 2013: 1-4). Section 2 on definition of terms, defines telephony services as ‘facilities including but not limited to Telephone services, Wireless facilities, Pool mobile facilities and Roaming facilities. The objective of the policy is to ensure that telephony services are used effectively, efficiently and for official purposes.

In addition, there is one notable features of this policy which is common only to the policy on Electronic Mail Usage. Section 8.2(a) indicates that “the duration and frequency of personal calls

must remain limited to the extent that the call does not interfere with the duties of an employee or the duties of others and must not impact on the productivity”. Whilst section 8.2.(b) stipulates that ‘a manager must monitor telephone usage within his or her Division/Section/Office/Unit on a monthly basis’(Policy on Telephony Services, 2013: 1-4) this sub-section introduces a new dimension and imposes a layer of responsibility for a manager in their supervision of employees. This responsibility introduced by the policy may be owing to the ‘high cost to communicate’ or perhaps it is introduced as part of the internal controls which seeks to ensure maximum fiscal discipline in the way in which employees communicate and conduct their duties. Finally, despite the difference in the structure of internal electronic communication policies of Parliament, a senior policy analyst who spoke on condition of anonymity, insisted that the use of WhatsApp to communicate or conduct the business of Parliament was allowed by the policies.

Chapter 6 Conclusions and Recommendations

6.1 Introduction

As indicated in the body of the research, the ICT sector has evolved exponentially from the telegraph era when the market was static and applications were comparatively homogenous, to current times. Today, markets are now in transition to broadband access, including fibre, and mobile applications such as WhatsApp. The growth of the use of WhatsApp services by employees in Parliament as contained by this research has been rapid, not just because such services are cheap or some free, but because employees felt that WhatsApp had features valued by them.

These include employees' ability to use WhatsApp to send and share family photos, video and communication with other colleagues. However, it is also important to note that WhatsApp is not a substitute for the existing voice and messaging services including e-mail reminders available to all employees of Parliament. This is because employees, especially those who are an integral part of Committees (whether Portfolio or Select Committees), make use of SMS and e-mails to send notification of Committee activities to stakeholders in addition to Committee Group Chats on WhatsApp. In addition to this, there are specific verbal announcements during each Committee meeting where additional information is shared that requires the attention of all stakeholders.

Taking these issues into consideration, the research is unable to conclusively demonstrate or prove all my earlier hypotheses on whether the use of WhatsApp by employees led to an improvement in the service delivery performance of those employees. This to me is the real anti-climax. Hesitantly, the results from my data appears to prove without providing straightforward answers to my assumptions, the usefulness of WhatsApp in service delivery. Of course, on the other hand, there is an overwhelming concise evidence which sought to suggest that the use and meaning of WhatsApp by females was very different from their male counterparts.

The results thus show both positive and negative aspects of the active audience paradigm on the use of WhatsApp by employees. Both results, positive and negative, seem to be in agreement with the proponents of the active audience model. In this regard, Hall argues that texts are polysemic. Audiences are involved in "semiotic work" in decoding the meaning of media texts; however the ability of an individual to interpret media texts is shaped by specific social circumstances or situation in which he or she is located (Hall, 1980).

On the negative side, WhatsApp has allowed employees virtual access to 'micro-manage' their

domestic workers or people who work for them in general. Instructions on what to cook for dinner and other daily chores are communicated through WhatsApp. Similarly, it is this constant virtual access of WhatsApp that enables employees to be active participants in the everyday lives of their social lives outside of work whilst they are themselves at work during office hours.

The research findings have also tended to bend towards the busy ‘multiple lives and multiple roles that employees’ have to constantly negotiate and adapt to in their everyday lives. This again points to the relevance of the audience model and the hyperconnected world that was proposed by Kellner. He warned that society exists in an environment where the Internet and its associated OTT services are accessible and immediate, where people and businesses can communicate with each other instantly, and where machines are equally interconnected with each other. He goes on to state that ‘Hyperconnectivity refers not only to the means of communication and interaction, but it also brings people (and things) together from anywhere and at any time’ (Kellner, 2005).

In addition, the findings of the research has proven to some degree my earlier argument that the use of WhatsApp has given rise to a new form of ‘the public sphere’ in which people communicate, relate and share experience over this services. In other words, people need not to be in the same precinct to share news, aspirations and their fears thanks to this new technology, WhatsApp. This is made possible because WhatsApp breaks geographical and other physical boundaries (borderless) and it is universally accessible which is in line with the Constitution of the Republic of South Africa which ensures that every citizen has a right to receive and impart information as well as other national legislative frameworks which favour affordable and accessible telecommunications services.

Planning birthday parties, keeping in touch with family and loved ones and on the other hand wanting to be informed about civil issues such as security of their homes, perhaps represents an era of a ‘new employee’ or techno-inspired employee. It can be argued that the use and meaning of WhatsApp has created employees who are virtually active in the lives of school-going children and those around them. For females, competing about weight loss challenges with people from afar through WhatsApp and uploading and sharing photos of weight lost is also important.

Furthermore, it was demonstrated that the use of instant messaging where you can sit in a Committee but prepare logistics and other things such as communicating with your Manager about outstanding Committee applications and or programmes that need to be signed without having to leave your chair was hailed as something that is unique about WhatsApp. The nature of instant messages also received special mentioning, for instance that you send a WhatsApp message you can see in real time, when was it received by the next person, and whether the person

who could be a colleague is ignoring you or not. Others felt that WhatsApp messaging was more effective when you send a note to a Chairperson sitting beside you or other Members of Parliament in the same meeting without standing up and interrupting the meeting, or the trail of thought of your Chairperson if they are announcing something. People also felt that WhatsApp saves some employees who declare that their hand-writing at times failed them.

In his essay titled, “Encoding and Decoding” (1980), Hall clearly argues for the importance of the active audience model. Hall contends that active audiences do not see media texts as neutral or innocent, but as laden with meanings, values, and biases. Perhaps the findings of this research signals the entrance of a ‘new employee phenomenon’, a sub-culture product of what awaits employers and employees in the future, who would use OTT services such as WhatsApp to conduct both their business and social life at the same time. The use of WhatsApp to conduct professional business tied up with being current on the latest information in the lives of those who mattered in employees’ lives is an indication of the active audience model where people create their own content instead of following perhaps mainstream mass media issues.

Hyperconnectivity refers not only to the means of communication and interaction, but also to the impact this phenomenon has on both personal and organizational behaviour. Hyperconnectivity breaks down the boundaries of both time and space. It brings people (and things) together from anywhere and at any time (World Economic Forum Report, 2012:19). This is indeed what employees are doing - they want to communicate cheaply with people who are often not in close proximity to them; they want an instant flow of information.

6.2. Is the use of WhatsApp simply a means to reduce the current cost of communication, or do users prefer this medium irrespective of the generally accepted high cost of communication in South Africa?

All respondents felt that they used WhatsApp not only because it was cheaper. The affordability issue was not only limited to employees, however, they felt that they preferred WhatsApp over other methods because it was likely that not only their colleagues used it but they were also worried about people who also mattered to their lives. These people included domestic workers, their friends and family outside the working place. They also admitted that they were many instances when they did have sufficient airtime or could have used e-mails but they used WhatsApp for immediate response.

6.3. Has the use of WhatsApp become a new phenomenon associated with general courtship or office romance? For males, yes it was the most convenient way to sustain their love-affairs, deal with issues such as making sure that you communicate and an appointment with your barber so that you minimise the time spent to cut your hair. It was also felt that using and embracing WhatsApp during working hours meant that you did not suffer an ‘embarrassment or humiliation’ when you run out of airtime when communicating with important stakeholders both for social and professional purposes. For females, it was different: they used WhatsApp just to check-up on their colleagues and partners. However, they felt that it was easier to disrupt someone reading a book than when they are on the phone, therefore they used WhatsApp as a defensive mechanism against potential boyfriends when travelling to and from work on public transport. For females, it was not so much the romance that mattered on WhatsApp but to escape the reality of a potential romance.

6.4 Attitudes and Perceptions of WhatsApp

On questioning employees attitudes towards WhatsApp, when asked about one thing they wanted changed on WhatsApp, employees were divided. The majority felt that the simple nature of this platform made it unique, whilst others especially some female respondents felt that WhatsApp should have an option wherein some form of request or permission is sought instead of being greeted with a ‘hi’ from whomever has your number, which they found to be irritating.

The other aspects on the use and meaning of WhatsApp research result which relates to the active audience paradigm by employees as presented in this research is in fact a double-edged sword. The negative aspect relates to information from both gender participants, particularly males. However, for both males and females, should employees be exchanging photos with other relatives during working hours?

6.5 Policies of Parliament-Electronic Communications: In others, given this telecommunication applications’ ‘social engineering’, in what ways has WhatsApp been accepted or’ naturalised’ in the work environment?

Chapter 4 of the South African Constitution gives a mandate to a number of Portfolio Committees to legislate, conduct oversight visits, facilitates public participation as well as to represent the people of South Africa. Committee are sector-specific ‘engine room’ of Parliament. The work of Committee may also include investigation of any matter of public interest that falls within the ICT area of responsibility. It is therefore important that both the ICT and Policy Management

Unit (PMU) units of Parliament should work with the Committee on Telecommunications and Postal Services to understand major ICT market trends, policy and regulatory framework in the sector so that, the internal policies of Parliament are aligned to what the ICT sector is going.

Perhaps, both these internal divisions should delegate one official each to sit in the Committee meetings that are scheduled once a week and its programmes are made publicly accessible. This synergy would help avoid publication of ‘open-ended’ and outdated policies by the Parliament.

6.6 Future research study

I propose three areas for the future study of WhatsApp:

- First, there is a need for an expanded study because people can now chat on WhatsApp from their desktop computers through a new Web service for Google's Chrome browser.
The Web service is still tied to users' mobiles - they'll need to scan a QR code to sign up once they've downloaded the latest version of the app on their phones-and for now it only works on the Chrome Web browser.
- A second area of study on WhatsApp follows an announcement made on 22 January 2015 that a new Sim card for mobile phones is promising its users unlimited access to WhatsApp in 150 countries and across 400 network operators. News of the WhatsApp Sim, called WhatSim, comes as the instant messaging giant, which is owned by Facebook, and has announced its first foray away from smartphones, into Web-based messaging on desktop PCs and other devices. To get the Sim card, users pay an upfront fee of €10 (or €5 in some markets). Other than that, the service is completely free for a year after purchase. There are no caps on data usage.
- The third area of study on WhatsApp should focus on how the regulators and policy makers ensure that so-called over-the-top providers like WhatsApp are subjected to the same rules as telecommunications operators now that WhatsApp provides voice calls in addition to text messaging. Already mobile operators have accused the OTTs of wanting a “free ride” on the billions the operators invest in network infrastructure.

7. References

Abrahams, L. Goldstuck, A. (2011). **A decade of e-development in South Africa: sufficient for a services (r)evolution?**, University of the Witwatersrand and World Wide Worx, Johannesburg.

African Economic Outlook (AEO). (2009). **South Africa: Innovation and ICT**. Available at: <http://www.africaneconomicoutlook.org/en/countries/southern-africa/south-africa/> (accessed on 14 October 2015)

Alvarez, L.(2015). **BT Developing the Network for Growth and Equality of Opportunity: The Global Competitiveness Report-2015-2016**. Geneva: World Economic Forum

Aker, J. C., Mbiti, I, (2010). **Mobile Phones and Development in Africa Volume 24-Number 23: Journal of Economic Perspectives-Pages 207-232**).

Amega-Selorm, C. Mureithi, D. Pater, D. Southwood, R. (2009). **Impact of IXPs: A Review of the Experiences of Ghana, Kenya and South Africa: Final Version**. Open Society Institute.

AMS (2001). 'The Next Generation of Prepaid Services: Results of an Industry Survey'. The Hague: AMS.www.ams.com/Europe/amsinsight/Prepaid.asp.

Antonio, R, Kellner, D. (1994)**Modern Social Theory and the Postmodern Critique**. in David Dickens and Andy Fontana, eds. *Postmodernism and Social Inquiry*. New York: Guilford Press

Barker, M. Brooks, K. (1998). **Knowing Audiences: Judge Dredd, its friends, fans and foes**, Luton: Luton University Press

Babbie, E., Mouton, J. (2004). **The Practice of Social Research**. Cape Town: OUP.

Badenhorst, C. (2007). **Research Writing: Breaking the Barriers**. Pretoria: Van Schaik.

Bauer, J. Castells, M. (1999). **The Information Age: Economy, Society and Culture**

(Vol. 2). Oxford: Blackwell.

Baum, M.A. & Jamison, A. (2011). **Soft news and the four Oprah effects.** In: **R.Y. Shapiro, L.R. Jacobs (Eds)**, The Oxford Handbook of American Public Opinion and the Media. Oxford: Oxford University Press: 121-137.

Berberick, N. S.(2010).**The Objectification of Women in Mass Media: Female Self-Image in Misogynist Culture.** The New York Sociologist,Vol5, 2010. University of Buffalo

Bere, A. (2013). **Using mobile instant messaging to leverage learner participation and transform pedagogy at a South African University of Technology.** British Journal of Educational Technology, 44(4), 544-561.

Booth, W., Colomb, G., Williams, J. (2003). **The Craft of Research.** Chicago: The University of Chicago Press.

Bouhnik, D., & Deshen, M. (2014). **WhatsApp goes to school: Mobile instant messaging between teachers and students.** Journal of Information Technology Education: Research, 13, 217-231. Retrieved from <http://www.jite.org/documents/Vol13/JITEv13ResearchP217-231Bouhnik0601.pdf>

BroadBand Infraco. (2011). **Annual Report, BroadBand Infraco 2011.** Website URL: <http://www.infraco.co.za/SitePages/Home.aspx>, Accessed May 2015

BuddeComm .(2002).**Global-Mobile-MVNOs and Prepaid'**: Paul Buddee Communications Pty Ltd,. Australia.www.budde.com.au

Bridges, O. (2001). **Spanning the digital divide: Understanding and Tackling the issues.** Cape Town: Bridges Org.

Bently, K. Matheolane, M. Oxtoby, C. (2009).**From “Nommer Asseblief” to African Powerhouse? Challenges to Bringing South Africa’s Communications Environment into the 21st Century:** Report for the Freedom of Expression Project. Democratic Governance and Rights Unit (DGRU) and Department of Public Law. University of Cape Town Press

Bilbao-Osorio, B. Dutta, S. Geiger, T. and Lanvin, B.(2013).**The Networked Readiness Index 2013: Benchmarking ICT Uptake and Support for Growth and Jobs in a Hyperconnected**

World. Bilbao-Osorio, B. Dutta, S. Geiger, T. and Lanvin, B(editors). The Global Information Technology Report. Geneva. World Economic Forum

Bilbao-Osorio, B. Dutta, S. Lanvin, B.(eds) (2014).**The Global Information Technology Report (GITR) and the Networked Readiness Index (NR).** World Economic Forum and INSEAD: Geneva

Bradshaw, D. (2015) **The South African Medical Research Council (SAMRC):Average life expectancy in South Africa continues to increase.** Burden of Disease Research Unit. Media Release 27 January 2015. Website last updated, 13 August 2015. For more information:www.mrc.ac.za/bod/reports.htm accessed 21 September 2015

Brown, J.D, L'Engle, K. L.(2009). **X-rated: Sexual Attitudes and Behaviors Associated with US. Early Adolescents' Exposure to Sexually Explicit Media'** Communication Research 36, no.1(February 2009): 129-151.doi:101177/0093650208326465.

Casshey,B.W., Auld, D., Newsom, D.(2004). **Governing the Markets: Forest Certification and emergence of non-state authority.** Yale University Press

Castells, M Himanen, (eds) (2014).**Reconceptualizing Development in the Global Information Age: Oxford University Press, London**

Cohavi, A. (2013). **How did Whatsapp became the strongest social network?** *Calcalist*. Retrieved from <http://www.calcalist.co.il/local/articles/0,7340,L-3593840,00.html>

Chauncey, M. DePew .(1942). **My Memories of Eighty Years:** 1924 Autobiography copyrighted in 1922. Pp-354-355

Cisco. (2010). **Hyperconnectivity and the Approaching Zettabyte Era.** Cisco White Paper, June 10. Available at http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/Hyperconnectivity_WP_e-book.pdf.

Cogburn, D. (1996). **Globalization, information technology and state autonomy:** Explaining the political economy of telecommunications sector restructuring in South Africa, from 1985–1995, Unpublished doctoral dissertation

Cheng, W. Bin Chou,W.(2017).**Exposure to Sexual Stimuli Induces Greater Discounting Leading to Increased Involvement in Cyber Delinquency Among Men.** *Cyberpsychology, Behaviours, and Social Networking*.cyber2016.0582

Church, K., de Oliveira, R. (2013). **What's up with whatsapp? Comparing mobile instant messaging be-haviors with traditional SMS.** Proceedings of the 15th International Conference on Human-computer Interaction with Mobile Devices and Services (pp. 352-361). ACM

Constitution of the Republic of South Africa (1996). **Republic of South Africa: South African Government.** Available online at <http://www.info.gov.za/constitution/1996/96cons.htm>

Cohen, T. (2003). **Rethinking (reluctant) capture:** The development of South African telecommunications 1992-2002 and the impact of regulation. *Journal of African Law*, 47(1).

Conroy, M.M., Evans-Cowley, J. (2006). **E-participation in planning: an analysis of cities adopting on-line citizen participation tools.** *Environment and Planning* 24, 371–384

Creswell, J. (2002). **Research Design: Qualitative Quantitative and Mixed Method Approaches.** London: Sage Publications.

Dagada, R., Mukwevho, H.S. & Schofield, A. (2011). **Telecommunication Revolution in a Developmental State: South Africa Becomes an ICT Phenomenon.** New York: Raider Publishing International

Davis, A. (2009)**New media and fat democracy: the paradox of online participation.** *New Media & Society* 12, 745–761 (2009)

Deacon, D. Pickering, M. Golding, P. and Murdock, G. (1999). **Researching Communication: A Practical Guide to Methods in Media and Cultural Analysis.** London: Arnold.

Department of Homeland Security, USA.(2014). **Homeland Security, Communications sector, ector overview.** Available at <http://www.dhs.gov/communications-sector>. Accessed on 13 October 2015.

Department of Telecommunications and Postal Services (2015) **Integrated ICT Policy Review Recommendations.** Presentation to the Parliamentary Portfolio on Telecommunications and Postal Services -19 May 2015. Cape Town: Parliament of the Republic of South Africa

Dines, G. (2010) **Pornland: How Porn Has Hijacked Our Sexuality**: Boston, MA: Beacon Press 2010-1-23).

Donner, J. Gitau, S. Marsden, G. (2011) **Exploring Mobile-only Internet Use**: Results of a Training Study in Urban South Africa. *International Journal of Communications* 5 (2011), 574–597.

Duncan, J. (2009). **Highway Africa Chair in Media and the Information Society submission to the Portfolio Committee on Communications on costs of communications in iRhini**. Available at: <http://www.ru.ac.za/media/rhodesuniversity/content/highwayafrica/documents/presentations/Submission%20on%20communications%20costs.pdf>

Effective Measure (2014). **South African Mobile Report**: Survey of Desktop User's Attitudes and Uses of Mobile. aib: South Africa

Edelmann, N., Hoechtl, J., Parycek, P. (2009) **e-Participation for Adolescent Citizens (in Austria)**. In: Macintosh, A., Tambouris, E. (eds.) ePart 2009. LNCS, vol. 5694, pp. 163–174. Springer, Heidelberg

Eggin, S. R. Iedema. (1997). Difference without Diversity: Semantic Orientation and Ideology in Competing Women's Magazines. In: Wodak, Ruth (Ed.), *Gender and Discourse*. 165-196. London, England UK: Sage Publications.

Esselaar, S., Stork, C., Ndiwalana, A., and Deen-Swararray, M. (2007) **ICT Usage and impact on profitability of SMEs in 13 African countries**: "Information Technologies and International Development 4(1): 87–100.

)

Esselaar S, Gillwald A, Stork C. (2006). **South African telecommunications sector performance review 2006**. LINK Centre public policy research paper 8.

Easterly, W. Laverine, R. (2002). **Tropics, Germs, and Crops; How Endowments Influence Economic Development**: NBER Working Paper 9106 www.nber.org/paper

Eldridge, D. (2001). **Parent involvement: it's worth the effort**. *Young Children*, 56 (4), 65-9.

Evans-Cowley, J.S. (2010). **Planning in the age of Facebook: the role of social networking in planning processes.** *GeoJournal*, 75, 407-420

Englander, E. (2012). **Low Risk Associated with Most Teenage Sexting: A Study of 617 18-Year-Olds:** Massachusetts Aggression Reduction Centre.

Evans-Cowley, J.S. Hollander, J.(2010). **The New Generation of Public Participation: Internet-based Participation Tools.** *Planning, Practices and Research*, 25(3), 397-408

Fairweather, A. (2014). **Stop whining, MTN and Telkom.:** Threats by telecoms giants to start charging for services like WhatsApp and Skype are the behaviour of schoolyard bullies- 06 October 2014. *Mail&Gurdian Newspaper:* Johannesburg.

Ferguson, T., Rogers, J. (1986). **Right Turn.** New York: Hill and Wang. Fiske, John (1986a), "Television: Polysemy and Popularity," *Critical Studies in Mass Communication* , Vol. 3, No. 4:391–408

Fischer, Y. (2013). **The Facebook is dead – long live WhatsApp".** *De Marker.* Retrieved September 26, 2013, from <http://www.themarker.com/technation/1.2126492>

Fourie, P. (2007). **Media History, Media and Society** (2nd ed). Cape Town: Juta

Foucault, M. (1977). **The Order of Things.** New York: Pantheon. Language, Counter-Memory, Practice. Ithaca, New York: Cornell University Press.

Flew, T. (2008). **Communication for the 21st Century or How to have your blog read it too!.** In Society of Business Communications (Queensland) published 13 March 2008, Brisbane.

Fraser, N. (1990). **Rethinking the public sphere:** A contribution to the critique of actually existing democracy. *Social Text*, 25/26: 56-80.

Frisby, D. (1985). **Fragments of Modernity.** Cambridge: Polity Press.

Gandhi, R.V.(2015). **Bharti Airtel's response to TRAI Consultation Paper on Regulatory framework for OTT services:** Bharti Airtel Limited India and South Asia

Gauntlett, D.(ed)(2000). **Web Studies: Retriveing Media Studies for the Digital Age**. London: Arnold

Galperin, H. and Jordan, V. (2010). **Speeding up the digital revolution: broadband in Latin America and the Caribbean**. Santiago: Chile, Economic Commission for Latin America

Gebrean, A.F.(2002). **Getting Connected: Competition and Diffusion in African Mobile Telecommunications Markets**, World Bank Policy Research Paper 2863.

Gillwald, A (2005)**Good Intentions, Poor outcomes: Telecom Reform in South Africa**, Telecommunications Policy, V01.29. Issue 4. Elsevier. Pergamon, Amsterdam.

Gillwald, A. (2007)**Straddled Between Two Stools: Broadband development in South Africa**, Southern African Journal of Information and Communication, LINK Centre, Witwatersrand University, Johannesburg.

Gillwald, A (2012). **Review of the Department of Communication's Colloquium on an Integrated National ICT policy**, available at http://www.researchictafrica.net/docs/ICT_colloquium_SA.pdf.

Gillwald, A., Moyo, M. and Altman, M. (2012).**Cloud computing in South Africa: Prospects and Challenges**. In Cowey, P. and Kleeman, M. (2012), Special Report on Cloud Computing and Broadband in Emerging Markets, prepared for ITU (currently unpublished).

Gillwald, A. (2002). **Experimenting with institutional arrangements for communications policy and regulation: The case of telecommunications and broadcasting in South Africa**. The Southern African Journal of Information and Communication, 2(1). Available online at <http://link.wits.ac.za/journal/j0201-ag.htm>

Gillwald, A., Kane, S. (2003) **South African Telecommunications Sector Performance Review**. LINK Centre. Available online at [http:// link.wits.ac.za/papers/tspr2003.pdf](http://link.wits.ac.za/papers/tspr2003.pdf)

Goldstuck, A. (1997a) **How I bought my car on the Internet**. *PCReview*

Goldstuck, A. (2002a).**Internet access in South Africa 2002: An annual study of the ISP market in South Africa**. Johannesburg: World Wide Worx.

Goldstuck, A. (2004a). **Online Banking in South Africa 2004**. Johannesburg: World Wide Worx.

Goldstuck, A. (2004b) **Internet access in South Africa**, Johannesburg: World Wide Worx. Available online at <http://www.theworx.biz/access03.htm>

Gordon, M.K. (2008) **Media Contribution to African American Girls: Focus on Beauty and Appearance: Exploring the Consequences of Sexual Objectification.**” *Psychology of Women Quarterly*. 32(3):245-256.

Guillarmod, F. (1990) **From FidoNet to Internet: the evolution of a national network**. Available online at http://riverbbs.net/do/history/do_africa.html

GSMA .(2010) **Mobile Money for the unbanked: Mobile Money definitions**. Available at <http://www.slideshare.net/sarper/mobilemoney-definitions> (accessed October 2015).

Global Social Media Check Up .(2012) **Burson-Marsteller**. Retrieved from <http://www.burson-marsteller.com>

Goleniewski, L., Jarrett, K. (2006) **Telecommunications Essentials, Second Edition: The Complete Global Source**. Addison Wesley Professional.

Government of Republic of the South Africa .(1996). **Telecommunications Act No 106 of 1996**.

Government of Republic of the South Africa. (1997). **Telecommunications Amendment Act No 12 of 1997**.

Government of Republic of the South Africa. (2000). **Independent Communications Authority of South Africa Act No 13 of 2000**.

Government of the Republic of South Africa .(1999). **Public Finance Management Act No1 of 1999 and amended by No 29 of 1999**.

Gruber, H. (2001). **Competition and innovation: The diffusion of mobile telecommunications services in the European Union**. *European Economic Review* 45:577-588

Gruber, H. Verboven, F. (2001b). **The evolution of markets under entry and standards**

regulation: the case of globalised mobile telecommunications. International Journal of Industrial Organisation 19: 1189-1212.

Hall, S. (1980a) **Cultural Studies and the Centre: Some Problematics and Problems,**” in Hall *et al. Culture, Media, Language.* London: Hutchinson.-(1980b) “Encoding/Decoding,” in Hall *et al. Culture, Media, Language.* London: Hutchinson.

Hall, S. *et al.* (1980) **Culture, Media, Language.** London: Hutchinson

Hall, S. Hobson, D., Lowe, A. Willis, A.(eds)(1980) **Culture, Media, Language: Working Papers in Cultural Studies, 1972-79;** Centre for Contemporary Cultural Studies University of Birmingham; Hutchinson, London Melbourne Sydney Auckland Johannesburg

Hamilton, P.(eds)(2002). **The African Communications Infrastructure and Services Report 2002-2003.** Cambridge United Kingdom: AITEC Africa

Hanna, R., Rohm, A. Crittenden, V.L. (2011). **We’re All Connected: The Power of the Social Media Ecosystem.** Business Horizons, 54, 265-273.

Habermas, J. (1989). **The structural transformation of the public sphere.** Cambridge, MA: MIT Press. Translated by Thomas Burger and Frederick Lawrence.

Hatem Ali, A. (2011). **The Power of Social Media in Developing Nations: New Tools for Closing the Global Digital Divide and Beyond.** Harvard Human Rights Journal, Vol. 24. Available at <http://harvardhrj.com/wp-content/uploads/2009/09/185-220.pdf> (accessed on October 2015).

Held, D. McGrew, A.(2003) **Globalisation/Anti-Globalisation.** Policy Press, Cambridge, United Kingdom

Held, D. McGrew, A. Goldblatt, D. Perration, J.(1999) **Global Transformations: Politics, Economics and Culture.** Stanford University Press, Stanford, California

History of Phone Phreaking Blog (2011). On Chauncey, M. DePew : **The Greatest Bad Business Decision, Quotations that never was.** Available at <http://www>.

Harvard Family Research Project(2006) *Harvard Graduate School of Education Research produced for release at the Raising Student Achievement*, 2006 National PTA Legislative Conference

ICASA webpage.(2013). **Media release. ICASA is implementing the Cost to Communicate** programme to address communication concerns raised by various stakeholders. [Internet] Available at: <https://www.icasa.org.za/AboutUs/ICASANews/tabid/630/post/icasa-is-implementing-the-cost-to-communicate-programme-to-address-communication-concerns-raised-by-various-stakeholders/Default.aspx> [Accessed on 24 June 2015].

International Telecommunications Union.(2012) **Trends in Telecommunications Reform: Smart Regulation in a Broadband World**. International Telecommunications Union, Geneva, Switzerland

Industrial Development Corporation (IDC)(2011). **The 2011 Digital Universe Study: Extracting Value from Chaos**. Available at <http://www.emc.com/collateral/demos/microsites/emc-digital-universe-2011/index.htm>

International Labour Organisation (ILO. (1993a)**Statistics of employment in the informal sector**: Report for the XVth International Conference of Labour Statisticians-Geneva 19-28 January 1993, 91 p.

International Institute for Communication and ICASA.(2015)**Best practice policy and regulatory decision making to drive connectivity, accessibility, affordability and competitiveness in the global economy**: Telecommunication & Media Forum 8-9 December 2015, Johannesburg

International Telecommunication Union (ITU)(2015) **Measuring Information Society Report-2014-2015**.Geneva: ITU

International Telecommunication Union (ITU).(2013) **Measuring Information Society Report-2012-2013**.Geneva: ITU

International Telecommunications Union (ITU).(1999)**World Telecommunications Development Report 1999**: Mobile Cellular. Geneva: ITU

International Telecommunications Union (ITU).(2002)**World Telecommunications**

Development Report 2002: Reinvesting Telecoms. Geneva: ITU

International Telecommunications Union (ITU).(2004) **Telecommunications Indicators 2004.** Geneva: ITU

Intven, H., Oliver, J., Sepúlveda, E. (2000).‘**Overview of telecommunications Regulations**’, in **Telecommunications Regulation Handbook.** (H. Intven, Ed.) Washington DC: World Bank.

Jagdish, B.(2004)**In Defense of Globalisation:** Oxford University Press

Jensen, M. (2002)**The African Internet-A Status Report.** Johannesburg: SANGONeT.
Available online at <http://www3.sn.apc.org/africa/afstat.htm>

Kaplan, A.M. & Haenlein, M. (2010). **Users of the world, unite:** The challenges and opportunities of Social Media. *Business Horizons*, 53, 59-68.

Kaplan, J. (2005). **Roadmap for open ICT Ecosystems.** Berkman Center, Harvard Law.
Available at <http://cyber.law.harvard.edu/epolicy/roadmap.pdf> (accessed October 2015).

Kaplan, D. (1990)**The crossed line:** The South African telecommunications industry in transition. Johannesburg: Wits University Press.

Kellner, D. Ryan, M. (1988) **Camera Politico: The Politics and Ideology of Contemporary Hollywood Film.** Bloomington, Ind.: Indiana University Press.

Kellner, D. (1995)**Cultural studies, identity and politics between the modern and the postmodern:** London and New York: Routledge

Kietzmann, J.H., Hermkens, K., McCarthy, I.P. and Silvestre, B.S. (2011). **Social Media? Get Serious: Understanding the Functional Building Blocks of Social Media.** *Business Horizons*, 54, 241-251.

Kessides, C. (1993)**The contributions of infrastructure to economic development:** A review of experience and policy implications. World Bank: Washington D.C.

Kenny, G. Gorelik, A. Mwangi, S. (2001)**Interactive Features of Online Newspapers**. First Monday 5(1) available at www.firstmonday.org./issues5 accessed 20 November 2015.

Khumalo, L.(2015).**Telecomms Policy, Regulations and Management Lecture Presentation: Wireless Communication Technologies Made Easy**. Faculty of Humanities, Link Centre. Johannesburg: University of Witswatersrand

Kubayi, M.(2015) **Invitation to make written and oral submissions on Over-The-Top (OTT) Policy and Regulatory Options to Parliament; the Portfolio Committee on Telecommunications and Postal Services**; Personal Communication. Parliament of the Republic of South Africa: Cape Town

Kim, Y. Kelly, T. and Raja, S. (2010)**Building broadband: Strategies and policies for the developing world**, The World Bank.

Knott-Craig, A., with Silber, G. (2012)**Mobinomics. Mxit and Africa's Mobile Revolution**.

Kramer, W. J, Jenkins, B. and Katz, R.S. (2007)**The Role of the Information and Communications Technology Sector in Expanding Economic Opportunity**,"ECONOMIC OPPORTUNITY SERIES The Fellows of Harvard College 2007. 65

Lanier, J. (2010) **You Are Not a Gadget**. New York: Vintage Books, Random House

Leedy, P., Ormrod, J. (2005).**Practical Research: Planning and design (8th ed.)**. New Jersey: Pearson Educational International and Prentice Hall.

Lewis, C. (2015)**Certificate in Telecommunications, Policy, Regulation and Management ; Overview of the ICT technologies: from semaphore to Bluetooth**. Link Centre, University of Witwatersrand, Johannesburg.

Lewis, C. (2005).**Negotiating the Net: The Internet in South Africa (1990 2003)**The Massachusetts Institute of Technology Information Technologies and International Development Volume 2, Number 3, Spring 2005, 1–28

Lin, C., Wu, L., Wen, Z., Tong, H., Griffiths-Fisher, V., Shi, L. and Lubensky, D. (2012). **Social Network Analysis in Enterprise**. Proceedings of the IEEE, 100(9), 2759-2776

Listem, M., Dovey, J., Gidding, S., Grant, T., Kelly, K. (2003) **New Media: A critical Introduction**. London, Routledge

Livingstone, S., Bober, M., Helsper, E. (2005). **Active participation or just more information?** *Information, Communication & Society* 8, 287–314 (2005)

London, T. Stuart, L. H. (2004) **Reinventing strategies for emerging markets: beyond the transnational model**. *Journal of International Business Studies* (2004) 35, 350–370.

Loughran, S. B. (2008). **The Importance of Teacher/Parent Partnerships: Preparing Pre-Service And In-Service Teachers** > *Journal of College Teaching and Learning* Vol 5, Number 8. Dowling College, United States of America.

Lloyd, L. Duncan, J. Mannie, J. Bussiek, H. (2010). **Public Broadcasting in Africa: South Africa Country Report**. African Governance and Advocacy Project (AfriMAP) Open Society Foundation for South Africa (OSF-SA) Open Society Institute Media Programme (OSIMP).

Malila, V. (2013) **A baseline study of youth identity, the media and the public sphere in South Africa**: School of Journalism and Media Studies, Rhodes University

Mahan, A., Melody, W. (2005) **Stimulating Investment In Network Development: Roles for Regulators**. Lyngby: World Dialogue on Regulation.

Mansell, R., Wehn, R. (1998) **Knowledge Societies: Information Technology for Sustainable Development**. University of Sussex.

Mawson, N. (2014). **ICASA Rethinks asymmetry**. IT Web Online-29 September 2014: Johannesburg

Marx, K. (1852). **The Eighteenth Brumaire of Louis Bonaparte**. Available at <http://www.marxists.org/archive/marx/works/1852/18th-brumaire/ch01.htm>>

Marx, K. (1978). The German ideology. In R. C. Tucker (Ed.) **The Marx-Engels reader**. New York: W. W. Norton. (Original work published 1932)

Melody, W.H. (2003) **Information Infrastructure: Telecom Reform and Network Economy**. In

G. Madden(ed), *World Telecommunications Markets: International Handbook of Telecommunications Economics-Volume III*. Northampton MA: Edward Elgar

Melody, W.; (1997)**Telecom Reform: Principles, Policies and Regulatory Practices**. Lyngby: Den Private Ingeniørfond, Technical University of Denmark.

Messmer, E. (2010)**Data Breach Costs Top \$200 per Customer Record.** NETWORKWORLD, January 25. Available at <http://www.networkworld.com/news/2010/012510-data-breach-costs.html>.

McIver, W. (2003)**A Community Informatics for the Information Society's NRISD Briefing Paper**. Geneva. UNRISD.

Mobile World Live (2011)**Study: 24B Connected Devices by 2020 Creates US\$1.2 Trillion Revenue Opportunity.** Mobile Business Briefing, October 11. Available at <http://www.mobilebusinessbriefing.com/articles/study-24b-connected-devices-by-2020-creates-us-1-2-trillion-revenue-opportunity/18105/>.

Mochiko, T. (2016) **Employees to benefit from Telkom deal**. Business Day Newspaper (08-June 2016); Johannesburg

Muhoro, D., Kennedy, I. (2005)**What Issues must be faced by the Regulator due to Convergence and Emerging Technologies?'**. The South African Journal of Information and Communication (6).

Mutula, S.(2006)**Freedom of Information in the SADC Region: Implications for Development and Human Rights in Library Review Journal**, 55(7): 440-449

National Department of Health.(2012)**The 2012 National Antenatal Sentinel HIV and Herpes Simplex type 2 prevalence survey**. Pretoria: Government Printers

National Treasury. (2010)**Estimates of National Expenditure**. National Treasury, Pretoria

National Treasury. (2011)**Division of Revenue Bill**. Website URL:http://www.treasury.gov.za/legislation/bills/2011/bills2011_bill04-2011.pdf, Accessed June 2015.

Neichterlein, J.A. Weiser, P. E. (2007)**Digital Crossroads: American Telecommunications**

Policy in the Internet Age. 1-2.

Neotel and MTN. (2009) **Notes from joint press conference, 19 January 2009, on National Long Distance network project.**

Neotel. (2011). Website URL: <http://www.neotel.co.za/> Accessed June 2011.

Nkoana-Mashabane, M. (2010) **Minister Nkoana-Mashabane on South Africa's full membership to BRICS 28 December 2011:** South Africa's BRICS invitation (26 January 2011). South African Embassy. Pretoria

OECD, International Telecommunication Union. (2011) **M-Government: Mobile Technologies for Responsive Governments and Connected Societies**, OECD Publishing.

O'Sullivan, T. Hartley, J. Saunders, D. Montgomery, M. and Fiske, J. (1994) **Key Concepts in Communications and Cultural Studies 2ND Edition.** London: Routledge (second edition)

Oxford, A. (2014) **Moible Operators vs over-the-top services:** The next big battle in African telecoms? Ongoing debate over who pays for what sees mobile operators and Facebook clash at AfricaCom. November 12, 2014-

Oyinade, B. Daramola, I. (2015: 31) **Impact of Cultural Globalisation on Africa:** The Role of Western Media: International Journal of Education and Research *Vol. 3 No. 3 March 2015*

Page, M. Philips, T. (2011) **African Mobile Observatory:** Driving Economic and Social Development through Mobile Services. ATKEARNEY, GSMA and Wireless Intelligence. London and United Kingdom

Perkins, P. (2003) **An analysis of economic infrastructure investment in South Africa;** M.Com thesis, University of the Witwatersrand, Johannesburg.

Perkins, P., Fedderke, J.W. and Luiz, J.M. (2005). **An analysis of economic infrastructure investment in South Africa.** South African Journal of Economics, Vol 73:2.

Perez, S. (2011) **Getting Ready for Google Wallet, Sprint Switches on Nexus S 4G's NFC Chip.** ReadWriteWeb, July 11. Available

http://www.readwriteweb.com/archives/google_wallet_coming_with_sprint_nexus_s_4g_update.php

Picazo-Vela, S., Gutiérrez-Martínez, I. and Luna-Reyes, L.F. (2012) **Understanding risks, benefits, and strategic alternatives of social media applications in the public sector.** Government Information Quarterly, 29, 504-511.

Ponelis, S. Britz, J. (2008) **To Talk or not to Talk? From Telkom to Hellkom: A Critical Reflection on the Current Telecommunications Policy in South Africa from a Social Justice Perspective in the International Information and Library Review**, 40(4), December 2008: 219-225

Portfolio Committee on Communications (2014). **Public Hearings on Cost to Communicate in South Africa: Adopted Committee Report on cost to communicate.** Cape Town: Parliament of the Republic of South Africa

Portfolio Committee on Communications (2013) **Public Hearings on Cost to Communicate in South Africa: Adopted Committee Report on cost to communicate.** Cape Town: Parliament of the Republic of South Africa

Portfolio Committee on Communications (2012) **Public Hearings on Cost to Communicate in South Africa: Adopted Committee Report on cost to communicate.** Cape Town: Parliament of the Republic of South Africa

Portfolio Committee on Communications (2009) **Public Hearings on Cost to Communicate in South Africa: Adopted Committee Report on cost to communicate.** Cape Town: Parliament of the Republic of South Africa

Qiang, C. Z. Kuek, S.C. Dymond, A. Esselaar, S.(2011) **Mobile Applications for Agriculture and Rural Development.** The World Bank available at: http://siteresources.worldbank.org/Informationandcommunicationtechnologies/resources/mobileapplications_for_ARD.pdf (accessed in December 2015).

Rao, M. (2012)**Mobile Africa Report: Regional Hubs of Excellence and Innovation: Mobile Monday Research project: Extensia**

Rossow, J.(2016) **South Africa is Africa's largest economy (again)**. But what does it mean August 12: The International Monetary Fund suggest South African economy not the second largest anymore: School of Economic & Business Sciences, University of the Witwatersrand, Johannesburg.

Schwab, K. i-Martin, S.X. Schwab, K(eds).(2013) **The Global Competitiveness and Benchmarking Network**. World Economic Forum: Geneva

Sola Pool, I.(1983).**On free speech in an electronic age**: Technologies of Freedom. Belknap Press and Harvard University Press P 299

Solis, B.(2009) **Putting the Public Back in the public relations**: How Social media is reinventing the aging business of PR.

Souter, D. (2011) **Mobile Internet usage and demand in Kenya**: The experience of early adopters. Vodafone policy paper. The Policy Paper Series, Number 12, May 2011. Available at http://www.vodafone.com/content/dam/vodafone/about/public_policy/policy_papers/public_policy_series_12.pdf (accessed June 2015).

Scotts, D.M, (2008) **The New Rules of viral makerting**: How word-of-mouth spread your ideas free>An e-book available at <http://www.davidmeersmanscott>.

Statistics South Africa(Stats SA).(2015) **Statistical Release P0303**: Mid-year population estimates. Pretoria: South African Government

Statistics South Africa. (2012).**Poverty Profile of South Africa: Application of the poverty lines on the LCS 2008/2009**. Pretoria: Statistics South Africa. Available at: <http://www.statssa.gov.za/Publications/Report-03-10-03/Report-03-10-032009.pdf>

Standage, T. (1995) **The Victorian Internet**: The remarkable story of the Telegraph and Nineteenth Century's On-line Pioneers. A Berkley Books: New York

The Access Rainbow: Conceptualizing Universal Access to the Information/ Communications Infrastructure Andrew Clement University of Toronto, Canada Leslie Regan Shade University of Ottawa, Canada

The Presidency of South Africa: Department of Performance Monitoring and Evaluation and Development Bank of South Africa (2012).**The State of South Africa's Economic Infrastructure: Opporrtnities and Challenges.** Pretoria: Presidency of the Republic of South Africa.

Telkom. (2014) **Telkom Group Integrated Annual Report, for period to end March 2015.**Telkom, Pretoria

Thornton, L.(2006)**Telecommunications-an overview (in Thornton, L. Carrie, Y. Mtshaulana, P. Reburn, P.eds: Telecommunications law in South Africa, pp16-48).** Parktown: STE Publishers

Tunstall, (1997) cited in Oyinade, B. Daramola, I.(2015: 31). **Impact of Cultural Globalisation on Africa: The Role of Western Media: International Journal of Education and Research Vol. 3 No. 3 March 2015**

Tzuk, A. (2013) **Whatsapp has 350 million active users a month. [in Hebrew] Calcalist.** Retrieved October 23, 2013 from <http://www.calcalist.co.il/internet/articles/0,7340,L-3615097,00.html>

Van Dijk, J.A.G.M. (2006)**The network society: social aspects of new media.** SAGE, Thousand Oaks

Vodacom.(2013) **Presentation to the Portfolio Committee on Communications, 30 November 2012, on Cost to communicate.** Parliament of the Republic of South Africa, Cape Town

Wallsten, S. (2002). **Does Sequencing Matter?** Regulation and Privatisation in Telecommunications Reforms. *World Bank Policy Research Working Paper*(2187)

West, D. M.(2015) **Digital divide: Improving Internet access in the developing world through affordable services and diverse content.** Center for Technology Innovation, pp.1-130

Williams, R.(2003). Television: Technology and Cultural tuen>

White House .(2013)**Presidential Policy Directive: Critical Infrastructure Security and**

Resilience, Press Release-12 February 2013. Available at <http://www.whitehouse.gov/the-press-office/2013/02/12/presidential-policy-directive-critical-infrastructure-security-and-resil>, accessed on 13 October 2015

Wingood, G. M. Davies, S. DiClemente, R.J. Harrington, K. Hook, W.E. Kim Oh, M. (2001). **Exposure to X-Rated Movies and Adolescent's Sexual and Contraceptive-Related Attitudes and Behaviours**: Pediatrics 107, No.5(2001): 1116-1119. doi:10.103/e322352004-206

Wolf, M. (2004). **Why Globalisation Works**. Yale University Press, New Haven CT.

World Economic Forum. (2015) **The Global Competitiveness Report 2014-2015**. Schwab, K (editor). Geneva: World Economic Forum

World Bank and infoDev. (2011). **Broadband Strategies Handbook**. Washington DC: International Bank for Reconstruction and Development/World Bank. Available at <http://www.infodev.org/en/Publication.1118.html>

World Wide Worx. (2001-2010) **Internet Access in South Africa. Reports for 2001-2010**, World Wide Worx, Johannesburg.

World Summit on the Information Society (WSIS). (2003) **Declaration of Principles Document 03/GENEVA/DOC/4-E**. Available at <http://www.itu.int/wsis/docs/geneva/official/dop.html>.

Xavier, P. and Ypsilanti, D. (2007) **Universal service in an IP-enabled NGN environment?**, info, Vol. 9 No. 1, pp. 15-31.

Xavier, P. (2006a) **Rethinking Universal Service for a Next Generation Network Environment**, DSTI/ICCP/TISP(2005)5/FINAL, OECD, Paris, 18 April.

Xavier, P. (2006b) **What Rules for Universal Service in an IP-enabled NGN Environment?**, NGN/03, ITU, Geneva, 15 April 2006.

Young, M. (2005) **The future of universal service. Does it have one?**, International Journal of Law and Information Technology, Vol. 13 No. 2, pp. 188-205

Definition of Terms

SMS – the short message service (texting) has been a very lucrative business for fixed and mobile operators. While network quality is a major constraint to some OTT voice applications, SMS applications are less reliant on QOS, due to them using less data and having a higher tolerance for latency.

Applications (Apps) – This term is now associated with smartphones. Early examples include Skype (first on fixed networks but now also mobiles) and there are now thousands provided by mobile operators and third parties. Their important characteristic is that they are carried over the data part of mobile service.

VoIP is the first of the apps enabled by IP to threaten traditional telecommunications business models because they depended on voice revenues (and mostly still do). Policy and regulatory issues and responses have evolved with the maturity of the VoIP market.

VoIP also known as voice-over-broadband (VOB) or internet telephony takes a number of different forms. Across different platforms, VoIP services can be phone-to-phone, PC-to-PC ('on-net'), PC-to-phone ('inbound'), phone-to-PC ('outbound') and phone-to-phone ('bi-directional' between different networks). The different forms are reflected in licensing conditions.

The key policy issue is how to regulate VoIP compared with the telephone services it replaces or displaces.

Some countries view VoIP as a voice service while others view it as data: a 'value-added' or 'information' service. For example, Bolivia, Czech Republic, Egypt, Jordan and the United States view VoIP as data, while Dominica views it as voice. In the European Union, VoIP can be classified as either an Electronic Communication Service or as a Publicly Available Telephone Service.

Other 'Over-the-Top' Services

There are a number of other OTT services apart from VoIP that have been enabled by IP and which all have significant implications for market developments. They may pose a challenge for existing providers but do not seem to be as challenging for regulators as VoIP.

Apps that enable instant messaging and voice communication via data plans compete directly with the SMS and voice services upon which operators depend for a substantial portion of revenue. The average revenue per delivered byte is dropping, as SMS bytes, are replaced by 'over-

the-top' bytes. But SMS is not dead . The apps that compete with it depend upon both ends of the communication using the same app: they are closed systems. But SMS is on every phone: not just smartphones

In general, the term OTT refers to the delivery of video, audio and other media from a third party to person's device, leaving the Internet service producer responsible only for transporting bits and bytes. OTT is most often used to discuss video streaming services such as Netflix NFLX 0.83% , WhatsApp, Hulu, or WhereverTV, but it includes voice-over-Internet-Protocol, or VoIP, services that are driven by audio and used for communication purpose

The wide ICT ecosystem consists of networks, services, applications and content; their users; and governance that can help optimize or retard the investment, skills development, and innovation that are necessary for the ecosystem to function and evolve. Meanwhile, the mobile ecosystem consists of developers, service providers and users as subsystem within the wide ICT ecosystem

PSTN (Public switched telephone network) – The network that manages circuit-switched fixed line telephone systems.

SIM (Subscriber Identify Module) – A SIM or SIM card is a small flat electronic chip that identifies a mobile customer and the mobile operator. A mobile phone must have a SIM card inserted before it can be used.

ACRONYMS /Glossary of Term	
BOP	Bottom of the Pyramid
ECNS	Electronic Communication Network Services
ECS	Electronic Communication Services
IPB	ICT Price Basket
ICASA	Independent Communications Authority of South Africa
CTRs	Call Termination Rates
DoC	Department of Communications
InfoDev	Information for Development Program
ITU	International Telecommunication Union
ISPs	Internet Service Providers
GDP	Gross Domestic Product
NDP	National Development Plan
ICT	Information Communication Technology
RDP	Reconstruction and Development Programme
MIS	Management Information Systems
MTRs	Mobile Termination Rates
SNA	State of the Nation Address
USAO	Universal Service and Access Obligation
NDP	National Development Plan
USAF	Universal Services and Access Fund

ACRONYMS /Glossary of Term	
NEPAD	New Partnership for Africa's Development e-Africa Commission
NGP	National Growth Path
OECD	Organisation for Economic Co-operation and Development
OFCOM	Office of Communication
PCC on TPS	Portfolio Committee on Telecommunications and Postal Services
PFMA	Public Finance Management Act
SABC	South African Broadcasting Corporation
SAPO	
SOCs	
VANS	Value Added Network Services
WASP	Wireless Application Service Providers
USAASA	Universal Service and Access Agency of South Africa
WSIS	World Summit on Information Society
USO	Universal Service Obligations
.zaDNA	.zaDNA
ITU	International Telecommunications Union
UNESCO	United Nations Educational, Scientific and Cultural Organisation



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Designed and Administered by:

Mr Sandile Thabani Alphoes Nene (205522171)

Researcher: Portfolio Committee on Communications and Portfolio Committee on Telecommunications and Postal Service

Master's Degree Student: Masters Student in Media and Cultural Studies
University of KwaZulu-Natal (Pietermaritzburg Campus)

Date: 23 September 2015

Legislation, Policy and Regulation in the post-Telecommunication era: The role of OTT service's (WhatsApp) consumption and sense-making in the everyday lives of black-middle class employees of Parliament of the Republic of South Africa

Dear Participant,

The Masters Student in Media and Cultural Studies, Mr Sandile Nene is undertaking a questionnaire by means of investigating **the role of WhatsApp and sense-making in the everyday lives of black-middle class employees of Parliament of the Republic of South Africa** (see attached Research Agreement and Consent Form); the University of KwaZulu-Natal, Dr Nicola Jones (Research Supervisor).

I would like you to be involved in a process of questionnaires and interactive interviewing over a course of three months. I will take notes from the questionnaire and interview (which will to be video recorded), all of which I would like permission to use as information for my research. I will not force you to engage in anything that you are uncomfortable with and offer you the option of withdrawing from the project at any time, with a full promise of confidentiality regarding whatever information you have contributed.

Ideally, the outcomes of this study will be adding value to the very limited literature on alignment of the role and the use of WhatsApp by employees, and ICT legislation in

South Africa. You are kindly requested to participate in this study by completing the attached questionnaire which will take approximately 30 minutes to complete. Your participation in this study will be greatly appreciated and that it is entirely voluntary and all information will be treated as confidential and used exclusively for the purpose of this study.

The findings will be compiled in a report to be presented to the University of KwaZulu-Natal however, details of participants will not be published. Furthermore, a copy of this study will be made available to all participants should they wish to pursue it, on request from the researcher or their respective institutions. Should you be willing to participate in this study you will be asked to sign a consent form. Please see Consent Form accompanying this letter.

Yours sincerely

Sandile Nene, Masters Student in Media and Cultural Studies
University of KwaZulu-Natal (Pietermaritzburg Campus)

AGREEMENT TO PARTICIPATE IN RESEARCH PROJECT

I (name of participant) understand the contents of this letter and the nature of the research project, and consent to participate in the research project.
I understand that I am free to withdraw from the project at any time, if I so wish.

SIGNATURE OF PARTICIPANT

DATE

.....

The Research Model adopted for this study shows is the active audience. Therefore, the questionnaire is structured based on this model. However, specific questions on the ICT markets and ICT laws have also been included, as these two aspects form part of the constructs of a conceptual model that is proposed in this study.

Please note that the questionnaire is divided into TWO sections, the first set of questions collects **DEMOGRAPHIC INFORMATION** about the participants; while the second set of questions is based on the actual **CONSTRUCTS OF THE RESEARCH MODEL** adopted for this study, as explained in the paragraph above.

General Instructions

- i) Please complete both sections of this questionnaire by answering all questions that are included in both sections.
- ii) Kindly answer as truthful as possible and feel free to make additional comments. Should writing space not suffice, please turn over the page.
- iii) Please **TICK** or **CIRCLE** the appropriate option or answer where necessary.

Instructions for returning completed questionnaires

Queries and/or completed Questionnaires should be directed to: **Mr Sandile Nene - snene@parliament.gov.za; 0214038225 or 0837122316**, before or on **THURSDAY, 30 September 2015**.

YOUR CO-OPERATION IS VERY MUCH APPRECIATED!!

Below is the first set of questions aims to collect **DEMOGRAPHIC INFORMATION** about the participants. Please select the appropriate answer by placing a **TICK / CIRCLE** on one of the following options.

1. Define your age group			
1. 25 – 35	2. 35 – 45	3. 45 – 55	4. 55 and above

2. Please rate your level of ICT knowledge and Usage			
1. None	2. Semi-Skilled	3. Average Skilled	4. Highly Skilled

3. What is your job role?			
1. Administrator	2. Management	3. Specialists	4. Committee Staff

4. Which committee/s are you a member of? Which position do you hold			
1. Portfolio Committee	2. Legal Services	3. HR	4. Manager

5. What types of OTT services do you use?				
1. Facebook	2. WhatsApp	3. WeChat	4. Twitter	5. More than three

6. How many years have you been on the chosen platform?				
1. 0 - 5	2. 5 – 10	3. 10 – 15	4. 15 - 20	5. 20 +

7. What is your Race and Gender				
African	Coloured	Indian	White	Other

Questions to be completed

- Do you make use of WhatsApp during the working hours? Why do you use WhatsApp and what experience do you get on being on this platform?
- Is there a difference between time spent on WhatsApp at home and the use of WhatsApp when you outside precinct of Parliament, at home, travelling on a train, bus, and taxi?
- How much data or airtime do you load in your mobile phone weekly specifically for chatting on WhatsApp?
- In what ways has the usage of WhatsApp improved your performance in the execution of social, corporate and in some cases academic everyday duties?
- In your opinion, is there a different meaning in the use of WhatsApp by female employees compared to what is experienced by their male colleagues/ counterparts?
- In what ways has WhatsApp been accepted or 'naturalised' in the work environment?
- Has the use of WhatsApp become a new phenomenon associated with general courtship or office romance?
- Has your experience in the use of WhatsApp enabled you to save airtime/ data bundle cost? Are you exceeding or saving on Parliament's employee monthly telephone allocation bill or amounts even with the use of WhatsApp (evidence of automated generated bills)?
- How often do you use WhatsApp in performing official duties in a day and in a week?
- Have you ever used WhatsApp to report to your manager conveying your absentia to work, and what was the managers' response?

- Did your manager/ team leader or supervisor grant or reject the annual/sick, paternity leave via WhatsApp?
- Which Human Resource policy of Parliament allows you to make use of WhatsApp as a medium for conveying messages about any issue at work?
- What does the use of WhatsApp mean to you?
- Has the use of WhatsApp become a new phenomenon associated with general courtship or office romance?
- What would you consider as the weakness of using WhatsApp and in what ways is the use of WhatsApp beneficial to your social life? How has it improved your connectivity and social life interactivity with the outside world?
- Which feature would you like a ‘new social media platform’ to have which WhatsApp does not have?
- Have you ever tried calling friends and family on the ‘WhatsApp only’ network and what was your experience?
- Is WhatsApp intra-voice calls anti-competitive in the sense that calls are restricted to WhatsApp users only?

Thank you for participating