The Digital Divide in South Africa

Identifying emerging inequalities in Internet access and online public spheres

Cathryn Reece
University of Cape Town
Cape Town, South Africa

Abstract

This thesis is an investigation into the digital divide in South Africa. Its main aim is to present for the first time an analysis of South African Internet access and Internet users, in the context of existing digital divide theory. Four possible models of digital divides will be tested by assessing Internet access, Internet users and Internet user behaviour.

The first part of this thesis sheds light on how changes over time in the number of people Internet access in South Africa can be understood. In an effort to evaluate four possible models from literature on digital divides, statistics on Internet access in South Africa are scrutinised in ways that have not yet been done in academic literature. Information on how Internet access may be increasing or decreasing within the population will also be assessed. This is so as to demonstrate how Internet access in South Africa may be experiencing a far more complex set of changes than access statistics alone may suggest.

The second part of this thesis will investigate the Internet users who participate in debate and discussion on MyNews24, a South African "citizen journalism" portal on News24. The four possible models of the digital divide will be further evaluated based on the results of these findings. It is here where MyNews24 will also be evaluated as a possible online public sphere, which will demonstrate how inclusion of exclusion from public spaces such as MyNews24 may be of previously unrecognised consequence.

The third and final part of this thesis will investigate how the digital divide is manifesting in the online commentary on MyNews24, and will demonstrate what kinds of interactions and conversations are talking place in this space. This will also demonstrate ways in which the digital divide may be affecting the nature of online debate in these possible online public spheres.

It is expected that this investigations will demonstrate how much more inter-disciplinary research is needed in this area. It will show that more work is required by scholars in order for us to adequately understand how growth in Internet access and Internet use in South Africa ebbs and flows within the population.

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Chapter 1:
Introduction

The Internet is the global economic and social tool of the 21st Century. It has become a space for political, cultural and personal discourse, and advancements in technology have revolutionised its usefulness in the modern world. Citizens of the global community are using the Internet as a tool for business and a medium for pleasure, as entrepreneurs and big business frantically work to incorporate the Internet into all other walks of life. As with so many technological advancements, however, the implementation of the Internet on a global scale has not been uniform, and there are substantial gaps in Internet access among countries around the world. And as more people start to perform more and more activities online, questions must be asked about what this means for those who are and continue to be excluded from the Internet experience.

Academics have focused much attention on "the digital divide" in recent years, with questions being raised as to the motivations behind and consequences of this phenomenon. Much of the theory has emerged from the developed world, where the majority of citizens have access to the Internet, but far less information is available on the digital divide in developing nations. In these countries, physical, financial and educational barriers are far more detrimental than motivational ones, and it once again the poorest of the world's poor who are losing out.

This thesis is concerned with the digital divide in South Africa. The impetus for this thesis was borne out of a lack of academic research on the nature of the digital divide in South Africa. Through a review of literature on the digital divide is it evident that the state of Internet access in South Africa has been largely ignored. This is the point of departure for this thesis, whereby a number of methods will be used to test a number of different facets of Internet access and use. This thesis relies on inter-disciplinary research methods; qualitative and quantitative analysis will be used, along with a case study and a content analysis of online texts by South Africans. Its scope is not to

comprehensively answer questions about the digital divide, but rather to ask them. It will be demonstrated that existing digital divide theory does not adequately address the complex problem of low levels of Internet access in South Africa.

The thesis will begin with an extensive literature review of theory germane to the scope of this research, then testing existing statistical information on Internet access in South Africa according to several theories on the digital divide. It will move from a macro to a micro level, from global to local, to assess how much we can really learn from statistics available to us, and then undertake research into online participation by South Africans. The particulars of these Internet users will be discussed, and inequalities here will be demonstrated. Through the evaluation of this online participation as an online public sphere, the consequences of the digital divide will be shown to have manifested in every day discourse on pertinent social and political issues.

1.1 Aims

This thesis aims to shed light on how Internet access in South Africa can be better understood according to digital divide theory. It will test proposed models of digital divides in the hopes that the digital divide in South Africa can be better defined as a social condition, then seeking to demonstrate how statistics on Internet access alone mask a complex set of trends in South African society which shape the composition of Internet users. It further aims to demonstrate how Internet access alone cannot overcome a digital divide, as there are many layers which contribute towards an individual's effective use of the Internet. Even among those who have access to the Internet, there are many aspects to the inequalities of a digital divide which problemmatise the search for a solution. This thesis also aims to make the case that access to the Internet has value and that therefore a lack of access has consequence, through an investigation into possible online public spheres and the inequalities therein.

1.3 Key concepts

The digital divide; the network society; Internet access, Internet user; the public sphere; unique users; page impressions; citizen journalism.

1.4 Research methodology

This thesis has undertaken inter-disciplinary research in an attempt to contextualise a phenomenon in evidence in the world of online media. It relies on quantitative and qualitative research that is descriptive in nature, designed to be a starting point for further research into the digital divide in South Africa. This is due to the fact that this is a fairly new area of research in South Africa, despite Internet access being available in South Africa for roughly two decades.

Literature on the network society has been reviewed to locate this digital divide research within a global context of consequence. Following this, research on the digital divide and digital divides around the world, the notion of online public spheres and the concept of citizen journalism and online spaces of interaction will be discussed.

Existing statistical data will be evaluated, and models and theories which are discussed in digital divide literature will be tested on new interpretations of these statistics. From here, new demonstrations of Internet access and Internet users in South Africa will be used to test four models of digital divide as proposed by existing literature.

Finally, a quantitative and qualitative analysis of Internet users on a citizen journalism website will be undertaken, to help demonstrate the end result of the digital divide phenomena that have been discussed.

This thesis will make use of two approaches in its investigation of statistics on Internet access and the digital divide in South Africa; these two approaches have been evaluated and critiqued by van Dijk (2005) as the most common methods of research into the digital divide. The first approach is methodological individualism, whereby "the importance of individuals and their purposeful behaviour" (Hodgson, 2007) is evaluated. Different states are considered more important than others in absolute terms. According to van Dijk:

> Differential access to information and computer technologies (ICTs) is related to individuals and their characteristics: level of income and education, employment, age, sex and ethnicity. This is the usual approach in survey research, which measures the properties and attitudes of individual respondents. Making multivariate analyses of several individual properties and aggregating them to produce properties of collectivises, one hopes to find background explanations... They remain on a descriptive level of reasoning.
>
> (2005, 10)

The other is a "relational or network approach" to understanding the digital divide. Here it is the relationships between two states, rather than the perceived value of one state over another. Scott explains:

> Relational data... are the contacts, ties and connections, the group attachments and meetings, which relate one agent to another and so cannot be reduced to the properties of the individual agents themselves. Relations are not the properties of agents, but of systems of agents; these relations connect pairs of agents into larger relational systems. The methods appropriate to relational data are those of network analysis, whereby the relations are treated as expressing the linkages which run between agents. While

> it is, of course, possible to undertake quantitative and statistical counts of relations, network analysis consists of a body of qualitative measures of network structure.
>
> (1991, 3)

Van Dijk (2005, 11) believes the relational view is of benefit to rigorous digital divide study because it does not look for absolute reasons behind the digital divide, but rather results in a nuanced study of a particular set of states within a population. While there is the risk that it underestimates individual characteristics too much, van Dijk believes it is the more appropriate model to use when evaluating the digital divide. Due to the fact that there is limited quantitative or qualitative research into the digital divide in South Africa, both views will be used to interrogate the digital divide in South Africa further. This is because it is believed the results of each investigation will help to produce a more comprehensive picture of Internet access in South Africa.

1.4.1 Data collection

Data for this thesis comes from two distinct sources. First, statistics from the South African Advertising Research Foundation (SAARF) into South African Internet users and their frequencies of access which have been made available to the public will be used to test digital divide theory in the South African context. Second, demographical information about contributors to a South African citizen journalism website has been collated, along with information from the website about how well each contribution was read by other Internet users, and how many comments each contribution received. Contributions were also attributed a genre - news, politics, entertainment, sport, lifestyle, consumer, finance and SciTech. This information was then incorporated along with a content analysis of comments left on contributions, in order to present a descriptive picture of a potential South African online public sphere.

1.5 Chapter outline

The remaining chapters in this thesis will feature the following:

Chapter 2 – Literature review

A literature review of the network society, digital divide theory, South Africa and the Internet, the public sphere and online public spheres and citizen journalism will be undertaken to establish the motivations behind and the context of this thesis' main research objectives.

Chapter 3 – The digital divide in South Africa

Statistics about Internet access in South Africa and Internet users in South Africa will be analysed and conclusions will be drawn according to theories posited in digital divide literature. Specific trends evident in figures on Internet access in South Africa over time which have not yet been considered from an academic perspective will be discussed.

Chapter 4 – MyNews24 as a case study

A citizen journalism website, MyNews24, will be used as a case study for an investigation into South African Internet users. Contributors to this website will be assessed and evidence will be presented as to the potential consequences of the digital divide in South Africa manifesting themselves online.

Chapter 5 – MyNews24 as an online public sphere

A content analysis of comments left on articles written by MyNews24 users will demonstrate how the digital divide is manifesting itself online in the form of discourse and debate on social and political issues. The digital divide can thus be identified at an end-point of online media interaction.

Chapter 6 – Conclusion and recommendations for further study

This chapter will summarise this thesis' findings and shortcomings and highlight areas for future research.

Chapter 2:
Literature review

A study of the importance and nuances of a digital divide makes sense and takes on most urgency within the notion of "the network society" that Manuel Castells and Jan van Dijk have written about at length. This chapter thus starts by examining the literature describing the network society, before looking at the major works on the digital divide and considering particular efforts to describe the digital divide in South Africa. It then looks at those studies that assess the Internet as a space for a Habermasian public sphere, in particular through the growth of citizen journalism and interactive spaces on the Internet, and summarises critiques of these possibilities.

2.1 *The Network Society*

Castells' theories of the network society and information age are crucial to understanding how historical social and economical inequalities, previously located in physical spaces, might be reproduced in other, more virtual environments. More importantly, they also establish a framework for understanding how these inequalities might be exaggerated and worsened due to the fundamental structure of the Internet itself. The speed with which some users experience the Internet, the ease with which some users can navigate the Internet and the proficiency with which some users are able to master interactions and transactions on the Internet are potentially conducive to widening more gaps than they close. The key is thus to examine how important these widening and shrinking gaps are to various stakeholders in either a global or local society.

The term "network society" is accredited to Jan van Dijk and Manuel Castells (1996) although Castells is most commonly associated with the term and the theories that emerge from it. The network society is understood as a society where networks – economic, political, social and media – are the dominant structures of organisation. Castells understands these networks to be the

crucial new agents of a modern society where communication networks are in abundance, undermining the importance of the individuals that participate in them.

Castells' *The Information Age: Economy, Society and Culture: Vol 1* (1996) describes the concept of the network society, the result of a "technological revolution, centred on information technologies [that] reshape, at accelerated pace, the material basis of society" (ibid, 1). Felix Stadler, in analysing Castells' work notes:

> Manuel Castells' theory of the network society has a unique place among the many attempts by social scientists to come to terms with the contemporary dynamics transforming the fabric of everyday life around the globe. It provides the single most comprehensive framework through which to connect, in an integrated analysis, very disperse phenomena.... This makes it the lone contender as the grand narrative of the present, signalling the return of the sociological macro-theory after years of post-modern pessimism about the possibility, or even desirability, of such a project.
>
> (2006, 1)

What makes Castells' theories of the network society germane to studying the digital divide in a developing country like South Africa is the circular link he makes between the proliferation of networks in recent years (in both quantity and quality) and the technological developments that appear to have fuelled the growth of the network society exponentially. Stadler quotes from a 1999 article written by Castells, *Information Technology, Globalization and Social Development*, where this is emphasised:

> [N]etworks have always existed in human organisation. But only now have they become the most powerful form for organising instrumentality, rather than expressiveness. The

> reason is fundamentally technological. The strength of networks is their flexibility, their decentralising capacity, their variable geometry... With new information and communication technology, the network is, at the same time, centralised and decentralised. It can be co-ordinated without a centre.
>
> (2006, 181)

Castells seems to suggest that each growing sphere – the network society and technology – can attribute the other for their continued strength and success:

> The information technology revolution, because of its pervasiveness throughout the whole realm of human activity will be my entry point in analysing the complexity of the new economy, society and culture in the making. This methodological choice does not imply that new social forms and processes emerge as a consequence of technological chance. Of course, technology does not determine society. Nor does society script the course of technological change, since many factors including individual inventiveness and entrepreneurialism; intervene in the process of scientific discovery, technological innovation and social applications, so that the final outcome depends on a complex pattern of interaction. Indeed, the dilemma of technological determinism is probably a false problem, since technology *is* society, and society cannot be understood or represented without its technological tools.
>
> (1996, 5)

The conclusion is that the way society organises itself and its dominant structural processes will always be interdependent with the technology available at the time, and for Castells – and for this study – it is not necessary to locate which one came first, but rather to understand simply that they co-

exist and rely upon each other. If technology and the way society is reorganising itself around a new set of networked structures becomes a globally dominant way of life, then one's access (or lack thereof) to technology becomes a vital factor in determining how one participates in this way of life. A consideration of a digital divide therefore must look at the effects of this technological inequality on a community within a global context. In the case of developing country such as South Africa, what must be examined is how detrimental it is to society to not have access to technology and networks.

Castells' relevance to a study into South Africa's role in a new networked society is not in doubt. In 1998, he considered how South Africa may be the key to helping the rest of Africa – at the very least, sub-Saharan Africa – dig itself out of the "black hole" it finds itself within the network society (1998, 121). The black holes of information capitalism, according to Castells, are constituted by a "widespread multiform process of social exclusion" (ibid, 165). According to Castells, "a new world, the Fourth World, has emerged, made up of multiple black holes of social exclusion ... compris[ing] large areas of the globe, such as much of sub-Saharan Africa and impoverished rural areas of Latin America and Asia" (ibid, 168). Yet for all its advantages over the rest of sub-Saharan Africa, Castells concludes that "the vision of a new South Africa becoming the engine of development for much of the continent, through its multilayered incorporation into the global economy, seems, at close examination, utterly unrealistic (ibid, 126). Castells seems thus to suggest that South Africa's path through the information age is a unique one, bolstered in many ways by its technological and economic leverage over other African countries, but at the same time still very much at the mercy of uniquely African concerns. In 2000, Castells visited South Africa to discuss globalisation from a first and third world perspective. It would be here that he would consider the role the state could play in furthering technological development in South Africa, suggesting technological improvements that would greatly improve the country's socio-economic outlook. He also considered whether Africa as a whole should "travel the engagement path with the global economy and society or should pursue a

disengagement strategy where Africa sets its own terms and attempt to meet it own needs internally" (Gillwald, 2000). The warning was sounded for South Africa and Africa: "Countries that fall victim to their own ideology see their technological and economic positions rapidly deteriorate relative to others" (ibid). Having introduced this point of departure into his study of the network society, it becomes clear that evidence of a digital divide in South Africa will hint at whether or not the country will fall further into the African "black hole" or move further from it.

To understand what is at stake from a South African perspective, the conclusion of Castells' theory of the network society in *The Internet Galaxy: Reflections on the Internet, Business and Society* (2001) is of importance. Here he considers the role the Internet has played in the formation and development of the network or information society. He also attempts to trace the global digital divide and its consequences within the network society, noting that "the Internet is the technological basis for the organisational form of the Information Age: the network" (ibid, 1). Through discussions about the development of the Internet as a tool of "technological military superiority" over Russia (10), Castells traces the almost accidental growth of interconnected nodes of communication into what is known as the Internet and the World Wide Web (WWW) today. If one were to continue to doubt the importance of the Internet in the network society, Castells emphasises:

> In the last quarter of the twentieth century, three independent processes came together, ushering in a new social structure predominantly based on networks: the needs of the economy for management flexibility and for the globalisation of capital, production and trade; the demands of society in which the values of individual freedom and open communication became paramount; and the extraordinary advances in computing and telecommunications made possible by the micro-electronics revolution. Under those conditions, the Internet, an obscure technology without much application beyond

> the secluded worlds of computer scientists, hackers and countercultural communities, became the lever for the transition to a new form of society – the network society – and with it to a new economy.
>
> (2001, 2)

For Castells, the Internet as a communication medium – communication being the "the essence of human activity" (ibid, 275) – shapes the modern-day network society on a daily basis and it is because of this influence that other uses of the Internet can and have become such powerful economical, political, social and cultural tools. Also, because the Internet at once both shapes and is shaped by economical, political, social and cultural forces in the "offline" world, Castells makes the point that the inequalities present within all these spheres of life can be both mirrored in the online world, as well as exaggerated (275). Castells thus crystallises his extensive work presented in *The Information Age* and focuses the underlying theory on the Internet as a social structure and agent of change, and notes that access to and interaction with the Internet (and a lack thereof) can have far-reaching consequences for any member of any social sphere in both the online and offline world.

Of particular importance to Castells – and to scholars who have used his work in various avenues of study – is the way in which the Internet fundamentally changes the experiences of the economy, of politics, of society and of the media in a connected society. It is this area of research that informs an understanding of a digital divide within a community or country or continent to one beyond a measure of percentages alone. He writes:

> Since the Internet is becoming an essential medium of communication and organisation in all realms of activity, it is obvious that social movements and the political process use, and will increasingly use, the Internet as well, making it a privileged tool for acting, informing, recruiting, organising, dominating and counter-dominating. Cyber-space becomes a contested terrain.

(2001, 135)

While the level of engagement that social and political movements can use on the Internet is perhaps over-exaggerated in terms of a global average, Castells makes the critical point here that within the network society, a germane and increasingly (if unequally) prolific structure such as the Internet can become a vital space and tool for social actors and actions that have previously been restricted to the offline world. As a result economic forces and political movements can make (and have, in some instances) use of the Internet to extend activities from the offline world into the online world as well as to generate new processes that are located only in the online world. It is here again, where elements of public life that directly and indirectly affect members of social spheres move into a new medium that a consideration of inequalities of access to and use of said medium, becomes of a greater concern than the sum of its parts might suggest.

In his 1996 volume *The Rise of the Network Society*, Castells shows how the network society in an information age has shifted social processes, economic procedures and the role of the media, through new definitions of space and time. Of particular importance to this study is the way in which he suggests a citizen's experience of life within a nation may change due to the power of networks and the value of information. The consequences of these changes are in political experience, in the mass media and in the way communities and individuals interact leads to a new experience of the public sphere, and of the structures of power within them.

Having established a working theory of the modern world that relies closely on networks and ICTs, it is clear concepts related to the digital divide need to be developed so that the nuances of the problem can be correctly understood.

2.2 *Understanding Digital Divide theory*

Castells (2001, 247) defines the digital divide as "inequality of access to the Internet" and describes access to the internet as a "requisite for overcoming inequality in a society which [sic] dominant functions and social groups are increasingly organised around the internet" (ibid, 248). Van Dijk defines it as the "gap between those who do and those who do not have access to the Internet"; Norris (2001, 4) defines it as "any and every disparity within the online community" and Wilson (2006, 300) defines it as "an inequality in access, distribution, and use of information and communication technologies between two or more populations".

Van Dijk suggests that the term "the digital divide" over-simplifies the problem of inequality of access:

> First, the metaphor suggests a simple divide between two clearly divided groups with a yawning gap between them. Secondly, it suggests that the gap is difficult to bridge. A third misunderstanding might be the impression that the divide is about absolute inequalities, that is between those included and those excluded. In reality most inequalities of the access to digital technology observed are more of a relative kind. A final wrong connotation might be the suggestion that the divide is a static condition while in fact the gaps observed are continually shifting.
>
> (2006, 222)

Following the suggestion that the basic definition oversimplifies the problem, and ultimately creates more questions than answers, academics have attempted to understand the digital divide with greater clarity. Van Dijk and Hacker (2003, 315-316) propose four kinds of barriers to access to the Internet, namely the lack of mental access, material access, skills access and usage access. These restrictions on access would result from a "lack of elementary digital experience", "a lack of possession of computers and network equipment", "a lack of digital skills" and "a lack of meaningful usage opportunities" respectively (ibid). Norris (2001) similarly considers the digital

divide as a "multidimensional phenomenon" (Fuchs and Horak, 3). Van Dijk summarises Norris' work as follows:

> In 2000, Norris (2001) surveyed the extent of access to and use of the Internet in 179 nations across the world. A global divide appeared to be evident between industrialised and developing societies. A social divide was apparent between rich and poor within each nation. And within the online community, evidence for a democratic divide was emerging between those who do and do not use Internet resources to engage, mobilise and participate in public life.
>
> (2006, 225)

The barriers that van Dijk and Hacker propose all contribute to the divides that Norris identified. And while material access is perhaps the most easily measured (and frequently used) characteristic of the digital divide, van Dijk argues (2006, 226) that motivational access (i.e. wanting access to the Internet and then using it) should not be assumed as universal. Van Dijk argues that to have Internet access is not equal to using the Internet, and cites factors such as 'no need', 'no time', 'no money' and 'no skill' as possible reasons behind non-use and low-use of the Internet. Selwyn (2006) attempts to understand non-users and low-users of the Internet in the United Kingdom in this light, in contrast to so-called high Internet users and moderate Internet users (Lenhart et al 2005). Selwyn's study showed that even when access to the Internet is present, some people chose not to use it and considered themselves non-users. Thus, even within countries with a high level of Internet access, Internet use may not be as pronounced or as clearly defined. Katz and Rice (2002) propose that "the Internet does not have appeal for low-income and low-educated people" (van Dijk, 2006, 227) and, as a result of qualitative studies, Stanley (2001) and Rojas et al, (2004) proposed that "traditional masculine cultures... and minority and working class lifestyles" were not conducive to Internet access or use (ibid).

Other factors affecting motivational access are mental and psychological influences. Computer anxiety (a feeling of discomfort, stress or fear experienced when confronted with computers) and technophobia also play a substantial role in limiting Internet access and usage (van Dijk, 2006, 227-228).

Skills access is another, if less important, limitation of Internet access. According to a summary of studies testing perceived and actual Internet and computer-related skills, van Dijk posits that:

> The divides of skills access are bigger than the divides of physical access and, while physical access gaps are more or less closing in the developed countries, the skills gap (in particular, regarding information skills) tends to grow. A striking result is that those having a high level of traditional literacy also possess a high level of digital information skills.
>
> (2006, 229)

Studies have also shown that digital skills are learnt more through trial and error than in education settings, suggesting that skills would increase as access increased. Therefore, motivational access and material access would have an impact on the development of digital skills too. The final kind of access according to van Dijk (2006, 229), usage access, considers factors such as "usage time, usage applications and diversity, broadband or narrowband use and more or less active or creative use". In this case, lifestyle and the particulars of the kind of access available (broadband versus narrowband) and the kinds of activities available on the Internet (services versus entertainment) are also determining factors. Van Dijk summarises this gap in Internet access and use as follows:

> [There is a] usage gap between people of high social position, income and education using the advanced computer and Internet applications for information,

> communication, work, business or education and people of low social positions, income and education using simpler applications for information, communication, shopping and entertainment.
>
> (ibid, 230)

For van Dijk, socio-economic factors and Internet usage are also closely related. For instance, those who can afford broadband Internet connections would take more time to use the applications available on the Internet. Papacharissi and Zaks (2006, 64) posit, in this light, that "the future of the Internet is intertwined with broadband capabilities" and that "the future of broadband depends on whether it will deliver content different from that available through other media, thus creating motivation for public adoption" (ibid, 65). Therefore, while Internet access can be driven by the development of the Internet, the development of the Internet must surely be shaped by the kinds of people using it regularly as well. Divides can be looked for between rich and poor, young and old, men and women, racial majorities and minorities and users with high and low self-efficacy (Broos and Roe, 2006, 308). Chadhuri et al (2005, 745) suggests that in America, for example, "demography is destiny when it comes to Internet penetration... people who are well educated, married and not Black or Hispanic are more likely to be online than others who are not sharing these characteristics".

What general indications do we have for the way the digital divide will change over time? Van Dijk and Hacker (2003) propose four theoretical approaches to understanding the possible growth and development of a digital divide: the disappearing digital divide, the emerging digital differentiation, the denial approach and the persistence and growth approach. The denial approach – a theory that posits quite simply that the digital divide does not exist – has, according to Peter and Valkenburg (2005), been disproved, yet the remaining three theoretical approaches have been widely discussed and critiqued. The disappearing digital divide theory regards gaps in Internet access as "transient", (296) and regards the Internet itself as a more important influence on the adoption and usage of the Internet than the characteristics of its users.

To simplify, the theory suggests that providing Internet access to all users in a community or group will close the access gap, and will result in similar, if not identical, usage patterns and behaviour. It emphasises access as the only measure of the digital divide, and ignores any other social factors. The persistence and growth approach – a theory that suggests any digital divide is simply systemic of a larger problem of social-economic inequalities – adopts a contrary approach. According to van Dijk and Hacker:

> [The persistence and growth approach] is supported by left-wing political forces, social-democrats, socialists, progressive NGOs etc. They stress the rise of social and economic inequality in Western society and on a world-scale in general during the last two decades. They claim information inequality only adds another layer to increasing old inequalities of income, education, occupation or social class, race and gender (see a.o. Schiller, 1996). They hold that the claim of cheaper ICT products is a corporate trick. After the supply of hardware access the selling of expensive service and content starts. There may be large parts of truth in this interpretation: general inequality has increased both nationally and internationally... and old inequalities do not disappear with the advent of an information or knowledge society.
>
> (2003, 12)

They are quick to qualify that while this theory may be far more nuanced in its approach, it helps to understand only part of the problem:

> However, this position underestimates the import and complexity of changes taking place. Increasing differences in the skill and usage of the new information technologies might lead to new inequalities of a nature not known before and to be contested, if one chooses to do so, with other means than the traditional ones. And, what's more, cheaper hardware with more capacity and free Internet access as a public service are

> very real and important phenomena. The new technologies offer new opportunities for citizen participation and the consumer interest.
>
> (ibid)

In assessing the persistence and growth model, Bonfadelli (2002) tests a "knowledge gap" theory by analysing the development of Internet access in Switzerland over several years. Bonfadelli's findings are that, despite Internet access increasing steadily across demographical groups of the population, the gaps between these groups continue to increase as access increased.

There appears to be no discussion however as to the possibility of overcoming a digital divide in a persistence and growth model. The theory suggests an end-game scenario to the digital divide, where it is impossible to overcome the inequalities of the offline world when it comes to Internet access, and that moreover these inequalities are exacerbated and sustained when one looks at levels of development among segments of society in areas of both Internet use and literacy. In short, the persistence and growth approach posits that, once online, inequalities become exponentially exaggerated and are virtually impossible to recover from.

The emerging digital differentiation approach provides a theoretical framework that adds an additional layer of possible understanding to the persistence and growth theory. It suggests, "If gaps close at one stage, they open at another" (Peter and Valkenburg, 297) and that it:

> Evaluate(s) the social and political role of the Internet critically, with slightly pessimistic, dystopian undertones. It points out that existing inequalities in the use of the internet must be prevented from solidifying. If this is not achieved, technology-driven structural inequalities will lead to the disempowerment of large parts of a society.

This theory, unlike the persistence and growth approach, considers that it is possible for some inequalities in the offline world to be overcome and/or bridged in the online world, but also considers that the Internet may present new challenges for different groups of users that do not influence these groups at all in the offline world. An example of this might be that there are more people in their thirties with university degrees who use the Internet once a day than people with only high school education (when compared to the demographics of the general population), but that a disproportionately greater percentage of those users with only a high school education are under the age of twenty when similarly compared to ages of the total number of members of a population with only high school education. Thus, in this example, age helps to negate the effect of education when it comes to frequent Internet access. New kinds of inequalities, which would otherwise not exist, can thus spring up online.

This does not mean that Internet access/knowledge will remain static of course, but that as one group of the population learns a new skill or gains access to something new, another group may have already moved beyond this skill or access to a new level or skill or access, suggesting that while both groups may be progressing, the gap between their respective level of progression ebbs and flows over time. This is the basis of the emerging digital differentiation approach. Peter and Valkenburg (2006), in their study of adolescents' Internet use in Holland, support this theory, with emphasis on the way socio-economic and cognitive resources are mirrored in varying levels of Internet access and use (ibid, 302).

There is also a need to understand other factors which may be affecting Internet access in a society. When assessing a possible digital divide scenario in a population, it must also be at least considered that those who can afford Internet access and who can understand how to use the Internet may still not wish to do so. Similarly, it can also be suggested that people in a digitally divided society who do not have access to the Internet may not want to access the Internet simply because they do not know what it is and have no use for it. Put another way, if physical Internet access was provided to each

and every person in a population, regardless of factors which may have otherwise prevented them from accessing the Internet in the past, it may not be the case that all members of the population would immediately access the Internet, use it frequently or know what to do with it. Low Internet use and Internet non-use are also documented trends around the developed world, but the reasons behind this trend in the developed world are of marked difference to low and non-Internet use in the developing world. Research does show that, despite Internet access growing in many developed *and* developing countries, some population groups persist in being excluded from Internet use or persist in limited in the Internet use. Selwyn (2006), Peter and Valkenburg (2006) and Broos and Roe (2006) consider this trend in the developed world. Livingstone perhaps best summarises this problem,

> The Internet is an "experience technology" (Dutton and Shepherd, 2004); in other words, unless one has used it, it is hard to know what one's missing out on. As we move from talk of the digital divide to that of digital inclusion, the guiding question must be: What is the public good in being digitally included? As many have now noted, new media artifacts, activities, and arrangements are ubiquitous in their social consequences, regardless of whether or not individuals are "users" or "nonusers" (e.g., Lievrouw and Livingstone, 2006). In one sense, then, everyone is included in the digital society. But what remains unclear is whether and how new media introduce new forms of inclusion and exclusion, or whether they merely reproduce already familiar forms of social and economic exclusion. Given the continuous march of technological innovation in capitalist society, can we ever expect anything other than the persistent reproduction of inequality among the population?
>
> (2006, 4)

In this context it is important to note the findings of an American OPA (2005) study which highlighted factors that contributed to Internet usage and experience in a developed country such as the US. Reasons like 'it entertains and absorbs me'; 'it looks out for people like me' and 'it's a regular part of my day' are highlighted as the top three reasons influencing Internet use and experience. In terms of reasons which may motivate continuing and increasing the Internet experience, these factors highlight a need for entertaining (and thus media-rich and therefore broadband-intensive) content; content that is regularly and easily accessible and content that can be customised or content consumption that can be dictated and controlled by the user. If users are not experiencing this kind of Internet user experience, it is easy to begin to understand why they may not feel motivated to use the Internet regularly.

Selwyn notes that "it is beginning to be argued that the only digital dilemma [in the developed world] of the 2000s is that of having too much access to ICTs". For the purposes of this study of 'low and non-users of the Internet', Selwyn suggests that "conceptualising non-users of technology in stark dichotomous terms of those who 'have' or 'have not' access to technology is too crude an analysis' (274-275). Selwyn feels:

> We still need to know more about the social circumstances underlying people's disengagement from new technologies. Are non- and low-users, as is widely assumed, falling into existing and deep-rooted patterns of social and economic inequalities? Or are they exercising an empowered 'digital choice'?
>
> (2006, 274)

Selwyn identifies three kinds of non-users, namely 'absolute non-users', individuals who 'pass in and out of using ICT throughout their lifetime' or 'lapsed users' and, finally, 'sporadic users' (277). Through a quantitative and qualitative analysis of low- and non-users of the Internet in the United Kingdom, Selwyn notes that often Internet non-use is unrelated to the medium

itself, ("they always fight over it, you know. So if I come along I feel I'm intruding. But, I just sit and watch and I just laugh, but I never thought of playing it" or "I've never had the need to... because there is always someone to do it for me. [My job] was a question of telling people what to do and making sure they did it") (284). Alternatively, it was found that "no longer using a computer was actually a natural part of their current life situation" (286) or "the temporal, spatial and financial intrusion coupled with a fundamental lack of need for a computer meant that they 'honestly can't justify having one really'" (ibid).

Selwyn summarises his findings by positing, "Indeed, for many people non-use of computers was heavily structured by the institutional contexts in which they found themselves" (288) but also that "we must... acknowledge the fact that not using certain technologies for some individuals is a more nuanced matter than might be popularly imagined... In particular, making sense of and acting upon the 'meaning' of technology in their everyday lives appeared to lie at the heart of why many of our interviewees were not making using of computers" (289). Finally, Selwyn concludes, "we should therefore also resist assuming that non-use of ICTs is necessarily a pressing 21st century source of 'marginality' and exclusion from substantial opportunities" (289). It is important to bear in mind that, in the context of the digital divide in Africa and South Africa, this kind of consideration into low- or non-use of the Internet would not be considered as important as understanding the effects of the material digital divide. However, the implications of the existence of ambivalent attitudes towards Internet use must still be borne in mind.

Peter and Valkenburg (2006) also consider low- or non-use of the Internet in their study of adolescents' Internet use. They conclude their study of Dutch adolescents by stating, "Although there were clearly no Internet access gaps in our sample, Internet use has not become the natural force that harmonises societal groups and empowers the powerless. On the contrary, even among young members of the fairly egalitarian Dutch society, unequal access to socio-economic and cognitive resources led to differential uses of the Internet" (302). For Broos and Roe (2006), in a similar study of ICT adoption among

adolescents, factors of 'self-efficacy' (an individual's belief in a certain ability) and 'locus of control' (a person's way of perceiving the world and individual's expectation as to whether outcomes and rewards in life are largely under one's own control) have a dramatic impact. Here, psychological factors influence attitudes towards, and the resultant use of, the Internet. The study suggests that these psychological factors are more of a determinant of ICT access and use than socio-economic factors (which may simply be a result of the effects of peer pressure and social development among adolescents).

Hermeking (2005) also contributes to the consideration of 'culture and Internet consumption' by drawing on marketing and advertising research. Factors such as 'uncertainty avoidance' ("negatively correlated with the adoption of ICT products") are highlighted with reference to low Internet usage. Finally, a Pew Internet and American Life Project report (Fox et al 2005) suggests that the percentage of non-users of the Internet in the United States has remained stable in the last three years. This may suggest that non- or low-use of the Internet may disappear over time, but also that even in the most connected nation in the world, Internet use is not a forgone conclusion among the population.

A final element to understanding and analyzing varying levels of Internet access and use in a population when looking for possible digital divides is the role technology plays in shaping Internet access and use. Broadband Internet access is becoming growingly important as more global Internet applications and services become dependent on the benefits of high-speed, 'always on' technology. According to the Federal Communications Commission Website:

> High-speed Internet access or "broadband" allows users to access the Internet and Internet-related services at significantly higher speeds than those available through "dial-up" Internet access services. The Federal Communications Commission (FCC) generally defines broadband service as data transmission speeds exceeding 200 kilobits per second (kbps), or 200 000 bits per second,

> in at least one direction: downstream (from the Internet to your computer) or upstream (from your computer to the Internet).
>
> (2004, online)

As more and more Internet users in the developed world convert their Internet access into broadband Internet access, online publishers are creating Internet content that is dependent on high-speed access. Thus, it is not simply a case of Internet access being important for the developing world to keep up with the developed world, but as technology develops, high-speed Internet access is becoming the necessary kind of Internet access. Papacharissi and Zaks (2006, 64) consider broadband Internet "as the natural next step in Internet evolution and diffusion. With dial-up connections limiting bandwidth and therefore, Internet applications, broadband technology promises high speed and opens up a seemingly limitless gamut of possibilities". They also point out that "the future of broadband depends on whether it will deliver content different from that available through other media, thus creating motivation for public adoption" (ibid, 65). This is because, even in the United States, "high cost, limited availability and small number of high-speed services" (ibid, 67) can limit broadband uptake and use. Certainly, in South Africa, the high price of broadband Internet (relative to an average household income across all LSMs of just R4363 per month [SAARF AMPS 2005]) is a huge deterrent and "out of sync" with the rest of the world (Goldstuck, 2006). A September 2006 report (MyADSL, online) also notes that, in the context of South African Internet users, "price is the most important feature of a broadband service".

In the context of the digital divide and the possibilities of Internet use, broadband Internet access must be seen as yet another factor to track when considering the global digital divide. Papacharissi and Zaks note that:

> People with broadband access are much more likely to make transactions online than people with dial-up, as well as to download movies, music and visit television shows' websites while watching TV. Broadband users are also

> more likely to pay for online content, such as watching baseball games, for example. High-speed users report downloading almost three times the number of music files, movies or software over regular dial-up users, thus testifying to how high speed access changes the range of activities available online.
>
> (ibid, 67)

Considering that Internet access and broadband Internet access has been proven (Gillet et al, 2006) to have a marked affect on local and national economies, there is certainly a socio-economic disadvantage to not having high-speed access when this is a growing, beneficial trend. Despite the benefits of broadband Internet access Papacharissi and Zaks (ibid, 72) also note that, in the context of the United States, "the only way to get consumers to adopt a newer medium is to give them reason to abandon an older one, since they are not likely to spend over a certain fraction of their income on mass media expenditures" and that "the present broadband content is not substantially different from what consumers already receive through cable services or traditional dial-up access". The implication is thus: for broadband Internet to approach a state of being a global technological norm there needs to be a greater global push towards maximising the potential of high-speed Internet. This analysis is particularly important in the South African context, where motivation to purchase Internet access in the first place needs to be extremely high in order to overcome deterrents like pricing.

A Pew Internet and American Life Project report on Home Broadband Adoption (Horrigan et al, 2006a, i) suggests that not only are Americans "bypass(ing) dial-up connections and going straight to high-speed connections" but that broadband Internet is also becoming more widespread among segments of the population who would traditionally not have access . This report also shows that 42% of home broadband users "have posted content to the Internet" and that roughly 24 million home broadband Internet users reported "sharing their own artwork, photos, stories or videos on the Internet" (ibid, ii-iii). This participatory culture of online activity will be

discussed at length later as well. A 2005 Pew Internet and American Life Project report (Lenhart) also indicates that eight in ten American teenagers with access to the Internet play games online (ibid, iii), which is usually made possible with high-speed Internet access. Another Pew Internet and American Life Project report (Horrigan et al) suggests that home broadband Internet users use the Internet as a primary news source (2006b, ii) and that among younger home broadband Internet users, other news gathering habits (reading newspapers, watching television) are not as common. Importantly, this study highlights that heavy broadband Internet users – Internet users whom consume online news media on a regular basis and interact with websites on a regular basis – are likely to shape the future development of websites (ibid, ii). An American Online Publishers Association report (2006, 6) also found that watching video online is becoming "routine" due to broadband Internet access. A 2005 research paper on the "Broadband Incentive Problem" (*The Broadband Working Group*) even found that, as broadband connection speeds cannot keep up with the capabilities of computers and high-speed Internet applications, service providers' revenue is struggling under flat-rate pricing modes in developed nations. Thus, broadband Internet technology is contributing to the digital divide globally, as high-speed Internet access is shaping the future development of Internet applications and computer technology. Given that is has been shown through a review of the literature that broadband Internet access is increasing in popularity, directly and indirectly contributes to the economy of a population and has an effect on Internet usage and as a result, efficacy, levels of broadband Internet access are also expected to be a measure of evaluating levels of a digital divide in a developing population such as South Africa.

This thesis has therefore examined literature pertaining to understandings of the digital divide, most of which studied examples of Internet access in developed countries. It has explained varying trends which have been studied in digital divide theory, and made a case for why this is of significance in a network society. It has also identified the possibility of user motivation factors, rather than just socio-economic factors, affecting Internet use in a population and the role that Internet access type may further play in understanding the

particulars of a digital divide. The next step for this thesis will be to evaluate literature that has looked at South African Internet access in particular, which will help to inform what has yet to be studied in the South African context.

2.3 *The Digital Divide in South Africa*

Literature indicates that the implications of the digital divide are potentially quite serious, yet there is limited research into just how seriously South Africa is affected. Van Dijk (2006) proposes that "when digital media are gradually replacing and surpassing analogue print media, traditional illiterates are joined by a new category, the digital illiterates" (231). If one were similarly to consider Castells' argument that access to the Internet is "a requisite for overcoming inequality in a society which dominant functions and social groups are increasingly organised around the Internet" (2001, 248) one must consider not only if this is true of the global economy, but also of African and South African society in the context of the Internet 'haves' and 'have-nots'. Berger (2002c, online) suggests that "culture is the foundation of a knowledge-based society, and without mass access, South African [Internet] content will be dominated by foreign content, and our knowledge base will be proportionately impoverished. The global village, too, will not then include an African village." Fuchs and Horak (2008, 106) further suggest that "for Africa, [the digital divide] means that in the current form of the global network society, the continent has much less [sic] possibilities for participating in the economy, polity, culture and technology... that shape globalisation." The message is quite clearly that Africa as a continent and South Africa as a country stand to be excluded from the global village experience because of the digital divide. Thus not only is our limited socio-economic standing within the global economy affecting the development of Internet access across Africa, but the continual limited development in Internet access across the continent will continue to shape our status as third-world economic players. It is thus worth considering a more detailed state of Internet and telecommunications access in South Africa.

Roos and Jordaan (2006) assess the determinants of Internet usage in South Africa and conclude that "the number of Internet users is dependent on access to personal computers as well as real wages and salaries". Fuchs and Horak (2008) consider the digital divide in South Africa as a case study exemplifying the specifics of the digital divide across Africa while Gebremichael and Jackson (2006) consider the digital divide within Sub-Saharan Africa as a whole. Gillwald (2005) conducts an ambitious study of an 'African e-Index' by looking at telecommunications in ten African nations, including South Africa, and Cronje and Burger (2006) investigate the experience of Internet users at a 'free-access digital information kiosk' in South Africa. Wasserman (2002) considers the inequalities apparent between South African languages on the Internet. Hodge (2005) considers the prevalence of cellular phones in South Africa as a substitute for fixed-line telecommunications. Lewis (2005) considers the Internet industry in South Africa from a policy point of view, and identifies four 'critical negotiation issues' which have shaped the development of the industry over the last decade. These are identified as anti-competitive behaviour, access to facilities, telecommunications liberalisation, privatisation and regulation and e-commerce policy (5), which suggests that the telecommunications industry in South Africa is a unique additional factor to considering the digital divide in South Africa.

In one of the most relevant studies to this consideration of the digital divide in South Africa, Roos and Jordaan (2006) consider what they term the 'determinants' of Internet usage and provide an overview of the demographical information available for studying the digital divide. They highlight race, income, geographical location, education, age and gender as points of departure for studies into participation inequality. Fuchs and Horak (2008, 11) provide a summary of the "Internet in South Africa" and consider the effect that liberalisation and privatisation have had on the industry and conclude that "because there are decisive underlying social, ideological (racism) and economic factors that result in structural inequalities, the digital divide is not closed by fostering privatisation and liberalisation" (12). The implication is that so-called 'first-world' solutions proposed to close the digital

divide may not be effective in the developing world and that the digital divide in South Africa is symptomatic of globalisation and economic inequalities. Their study does show (ibid, 12), however, that Internet users per 100 inhabitants grew from just 0.71 users per hundred in 1995 to 7.89 users per hundred in 2004 and that this growth happened at a faster rate than personal computers per 100 inhabitants grew over the same time. Another curious factor that this study highlights is the apparent lack of relationship between annual investment in the telecommunications industry over this time and year-on-year access growth. The study concludes, "the South African example shows that market liberalisation has resulted in a higher potential for access, but not in solving the digital divide because the existence of phone lines, mobile lines and Internet connections does not mean that low- and medium income classes can afford access" (ibid, 17).

Gebremichael and Jackson (2006) and Oyelaran-Oyeyinka and Lal (2005) look at the digital divide in South Africa within the greater context of Sub-Saharan Africa. They also hint at an internal digital divide among Sub-Saharan countries when they suggest that:

> Capital cities serve as the centres of economic, political, educational and technological activities. Thus, these cities traditionally maintain the highest concentration of ICT development and implementation, including the largest numbers of telephone lines, television sets and radios. While these cities are still less developed than many American and European cities, the adoption and development of various forms of information infrastructure have allowed urban residents of these areas to adapt to ICT changes more readily than those in rural communities.
>
> (ibid, 271)

Gillwald et al (2005, 8) consider the prevalence of telecommunications in South Africa within the context of a study of ten African nations. The study notes that there is the "potential existence of a poverty trap [in African nations]

where a certain threshold of national communications infrastructure rollout and skilled individuals have to be in place for the positive network effects of these technologies to reach a takeoff point and multiply through the national economies". Bearing out previous research on growing digital divides, Gillwald finds that "the gap between South Africa and the global average on a range of ICT indicators has grown since [1994]" (ibid, 130). Paying particular attention to the growth in Internet adoption (which will be discussed in greater detail later), Gillwald suggests that "South African Internet penetration has followed the standard path of technological adoption – which is weak initially until a critical mass is achieved, followed by a subsequent explosion in growth, which then reduces as the market gets saturated" (ibid, 133). She does highlight though, that an apparent "tapering off" of Internet access growth coincides with a "dramatic increase in tariffs" in 2000 (ibid). Gillwald notes that, in 2004, 78% of Internet costs went "directly to [the only fixed-line telecommunications service provider] Telkom in the form of dial-up access call charges" (ibid). Gillwald also considers the relatively low use of Internet cafés in South Africa – and the absence of so-called 'cyber café culture' – and proposes a paradox in South African Internet and telecommunications use: "South Africans value communications services and are willing to pay an extraordinarily high price for them, [but] pricing clearly remains an inhibiting factor, both with regard to ownership and usage" (ibid, 148).

Gillwald also provides insight into the prevalence of the Internet and other telecommunication media by geographic location. According to her study, major towns and metropolitan areas were more likely to have inhabitants with access to radio, television and mobile phones than their rural counterparts. This facet of Internet use and penetration within a global context is also important when one considers that societies most likely to be on the disadvantaged end of a digital divide are from the developing world, where levels of infrastructural urban development are also likely to be behind the rest of the world. A similar distribution of access, albeit to a lesser degree of penetration, could be seen when measuring computer and e-mail access. It is thus clear that access to the Internet and other forms of communication are

dependent on the level of infrastructural development in the area in which potential users live.

Cronje and Burger (2006) study an "African information kiosk" in South Africa, where people who had not had any prior experience with or access to the Internet were encouraged to use computers and the Internet. This study found that while users seemed to be able to use the Internet and expressed an amount of excitement regarding this access, users did not convert their introductory access into use of the Internet that may be deemed 'effective and useful' for their daily lives, most probably due to the physical and economical hardships they face on a daily basis. Kwake and Ocholla (2006) similarly analyse the "feasibility of ICT diffusion and use amongst rural women in South Africa". While their study was not limited to use of the Internet only, their conclusions are equally valid ("In order to create a demand-driven ICT consumer community in rural areas, the hindrances to accessibility must be significantly reduced either before or during the provision of technology" [115]). Hodge (2005) considers how the comparably low price of mobile phone communication (when measured against the costs of Internet access) contributes to the relatively high number of cellular phone users in South Africa – users who could potentially have their time split between cellphones and the Internet. A similar study by Kwake et al (2005) looks at what rural women in South Africa think about the Internet and its use and adoption.

Given the diversity of the South African population and the eleven official – and numerous other unofficial – languages spoken across the country, it is also reasonable to assume that language is another crucial issue when evaluating a South African digital divide. Wasserman (2002) seeks to understand what the experience of non-English speaking Internet users is like on non-English websites. While his analysis of the contemporary online media landscape is somewhat dated (there are several more non-English South African websites in 2007 than his research included in 2002), Wasserman succinctly grasps the importance of the presence of an indigenous language online:

> (L)anguage is more than a means of communication, but is instead closely linked to cultural identity and can become an important factor in cultural politics in postcolonial societies. However, this does not ignore the fact that the adoption of English as a lingua franca in South Africa does have pragmatic advantages, nor that the appropriation and abrogation of a former colonial language also forms part of postcolonial processes. Nevertheless it is maintained that the empowerment of indigenous languages through new technologies could serve as a validation of cultural identities that have either been oppressed during apartheid or marginalised in the public sphere in the post apartheid era.
>
> (ibid, 305)

For both Wasserman and the many studies worldwide that attempt to understand the specifics of indigenous languages online, it is clear that there is an ambivalence around either utilising the Internet to its fullest extent to fight back against Western cultural hegemony and regain cultural space for marginalised languages or to capitulate to the worldwide trend of English as the dominant second language, and using the Internet to help these cultures leapfrog their digital divide and emerge on par with the rest of the online world. Evoking Castells' theories of virtual communities ("self-defined electronic network of interactive communication organised around a shared interest or purpose", [310]), Wasserman notes that it is only really Afrikaans that, as of 2002, has made something of the potential of the Internet:

> On the Internet, a plethora of virtual communities in Afrikaans already exist, while the proliferation of websites in Afrikaans or with Afrikaans subject matter shows no sign of abating. Such is the extent of websites in Afrikaans that some websites have sprung up that serve as portals that link the user exclusively to other Afrikaans sites.
>
> (2002, 310)

The popularity of Afrikaans on the web, in comparison to other indigenous languages, is not, however, the shining example of cultural recapitalisation that disproves any naysayers. Wasserman concedes:

> The strong position of Afrikaans on the Internet could at least partly be attributed to economics. Although Afrikaans could be seen as a minority language in post-apartheid South Africa, its speakers still occupy the strongest economic position in the country. While having been relegated to being a linguistic minority, Afrikaans, generally speaking, are [sic] still an economic majority.
>
> (2002, 311)

For Wasserman, "examples of indigenous languages on the Internet are hard to find" (312) and there is no doubt that this was the case in 2002. Apart from a few governmental websites, translation services and commercial or cultural start-ups that quickly failed, Wasserman can offer only that "individual relationships [among South African web users] often result in languages being used in ways that are aimed at immediate comprehension or as passwords providing access to a specific virtual community. In the process, formal linguistic boundaries are overstepped. Bulletin boards or guestbooks may carry messages mixing English… with Afrikaans and African words, displaying a disregard for formal linguistic rules" (313).

Yet again, if Wasserman sought to address the prevalence of indigenous South African languages *on* the web, there are very few studies that seek to address why these languages – and their speakers – aren't online in the first place. In a 2005 paper entitled "The feasibility of ICT diffusion and use amongst rural women in South Africa", Kwake et al seek to establish what the barriers to online entry might be for some of the poorest members of South African society. The results of their study suggest that it is levels of basic services, illiteracy and poverty that are the main barriers to online entry. Language is never deliberately mentioned as a factor motivating people

against Internet adoption. While this could simply be because the factor of language was never directly considered, it is perhaps also necessary to consider that while language is an important factor once South Africans are online, it is not one of the strongest hindrances to Internet access and use. This would suggest that the language barrier does more to further the divides among the Internet haves than to overtly entrench a divide between the haves and the have-nots.

It is therefore evident that while research into South African Internet access and a possible digital divide in South Africa has been conducted, none have more closely assessed Internet access over a period of time to try and identify what kind of digital divide is developing. Factors such as poverty and race and gender and language are identified as crucial to determining which South Africans are most likely to be online, yet studies have not yet contextualised these factors by looking at a comprehensive picture of Internet access in South Africa.

The next step is thus to find modern adaptations of sociological theories which can be used in an analysis of both quantitative and qualitative data on the digital divide. Literature has thus far shown that the existence and extent of a digital divide is of major consequence within the modern day network society. Quantitative data can as a result be used to assess the extent of a digital divide – both among nation states and within a nation state's society – and also to determine trends specific to a digitally divided society. Given that a person or society's interaction with the Internet lies at the crux of digital divide theory, it is important to also assess how aspects of the digital divide may manifest themselves among even those members of society with access to the Internet.

2.4 The Online Public Sphere

Habermas' public sphere theory, especially as it pertains to online spaces, is potentially a valuable method to measure a digital divide in both quantitative

and qualitative ways. The notion of the public sphere was first introduced by Jürgen Habermas, in his book, *The Structural Transformation of the Public Sphere (1989).* In 1964 Habermas had already defined the concept, in an article for *Staat and Politik* in Germany, as "a realm or our social life in which something approaching public opinion can be formed" (1974, 1). Tracing the development of the public sphere from 18th Century European coffee houses, Habermas has detailed how gatherings of people, particularly the bourgeoisie, led to the emergence of a literary public sphere, and later a political public sphere, where opinions of civil society were debated and later articulated to political leaders. Habermas defines the public sphere not as a physical space, but rather as a social experience where ideas are debated and opinions formed, noting that "a portion of the public sphere comes into being in every conversation in which private individuals assemble to form a public body" (ibid). Thus the public sphere was a space for private people to meet and experience their role as a public, free from interference from the state and church. In the political public sphere, citizens would begin to exert their influence on political leaders by keeping them in check through their discourses.

Far from an experience that continues into the modern-day information age, Habermas believes that the public sphere is a shadow of its former self, as economic changes brought on by capitalism eventually allowed for the political state to re-involve itself with the public, and for the time spent debating issues in the public sphere to be replaced with leisure time among private citizens. Habermas also posited that the press has gone from being a an "institution of the public itself" (ibid, 7) to a mass medium that creates the illusion of a public sphere while at the same time using public relations and political spin to manipulate the opinions of private citizens. This shift of the public sphere from centre of debate to an empty simulacrum of its former self is what Habermas terms structural transformation. Through his thorough analysis of the downfall of the public sphere, it is perhaps necessary to suggest that a true public sphere as defined by Habermas may never have existed in the first place.

Habermas also described a set of norms in the public spheres he had identified in the 18th Century European coffee houses. Firstly, he noted there was a disregard of social status in these early gatherings, with the quality of the discourse and opinion put forth by individuals seen as a more important influence on the public sphere. Secondly, the public sphere was freely accessible to anyone. These defining characteristics in Habermas' ideal notion of the public sphere are important when one looks at the modern network society Castells proposes and the value Habermas places on the political public sphere as a crucial structure in a functioning political system. Calhoun (1992, 2) best summarises these characteristics when he writes "in a nutshell, a public sphere adequate to a democratic polity depends on both quality of discourse and quantity of participation". The implications of Castells' theory of global changes within the network society on the public sphere are an important aspect of analysis when looking at the effects a digital divide may potentially have on a community.

The implications of Habermas' structural transformation – namely that there is still the illusion that private individuals are participating in discourse and debate that ultimately benefits society and politics in particular – can be applied to the modern network society. In fact the location of this "empty" public sphere within the network society – virtual communities in virtual spaces that are in a constant state of flux – becomes an exciting new dimension of Habermasian theory.

The original notion of the public sphere does need to be readdressed when looking at online or virtual public spheres. Poor (2005, online) summarises the particulars of an online or virtual public sphere by noting that "Habermas' original conception includes three important elements. One is that the public sphere was formed through discussion, often mediated. Second, it represented a new space of discussion for many who had previously been excluded. Last, ideas presented in the public sphere were considered on the basis of their merits and not on the social standing of the speaker". He argues that "the possibility for multiple public spheres is relevant ... given the large number of people who use the Internet [and] it is doubtful that a single public

sphere could consist of millions of people and still function, since deliberation would be difficult. Allowing for multiple publics, with different interest, allows for smaller and thus workable, yet still global, public spheres through the Internet" (ibid). These smaller spheres, as argued by Garnham (1992), according to Poor, are "each organised around its own political structure, media system, and sets of norms and systems" (ibid). Poor also notes that, as per Papacharissi (2002), there are elements of contradiction when applying public sphere theory to the Internet, namely that:

> Although the Internet allows for great amounts of information storage, access and literacy are likely to be unequal. Second, although people around the world can communicate with each other far more easily with Internet technologies than with previous technologies, there may be audience fragmenting.... The third issue, essentially, is that any online public spheres will face the problems of Habermas' bourgeois public sphere, and become corrupted by commercialism.
>
> (2005, online)

All three of these concerns are valid when considering a public sphere within a digitally divided society. Issues of access and Internet literacy, motivation and user gratification and finally commercialisation and sustainability, all fall within the ambit of a broad analysis of how the digital divide might be affecting both users and uses of the Internet. Poor (ibid) constructs a definition of the public sphere germane to the Internet, using four criteria:

- Public spheres are places of discourse, often mediated;
- Public spheres allow for new, previously excluded, discussants;
- Issues discussed are often political in nature; and
- Ideas are judged by their merit, not by the standing of the speaker.

These definitions will be used to asses whether the chosen space for an analysis of a potential South African public sphere provides a valid public sphere for further discussion and research.

Michael Hauben's (1996) *The Net and Netizens* was one of the first texts to try and unpack how people who use the Internet experience a sense of the public sphere. While it is in no way the only text to delve into these matters, it is relevant here mostly because it sought to understand these issues long before the Internet that we are experiencing today had taken shape. Hauben's forward thinking approach and his ability to see early patterns of behaviour by and among Internet users, still seem entirely relevant in today's context. Conversely, its consideration of online user trends at the early stages of Internet use in the late 1990s is also useful for scholars of the digital divide who would seek to understand how modern Internet use began and how it has evolved with the evolution of the Internet itself.

Hauben seemed well aware of the Internet's deficiency (then) in living up to the ideal of networked citizens in a network society:

> The complete connection of the body of citizens of the world that the Net makes possible does not yet exist, and it will be a struggle to make access to the Net open and available to all. However, in the future we might be seeing the possible expansion of what it means to be a social animal. Practically every single individual on the Net today is available to every other person on the Net. International connection coexists on the same level with local connection. Also the computer networks allow a more advanced connection between the people who are communicating. With computer communication systems, information or thoughts are connected to people's names and electronic-mail addresses. On the Net, one can connect to others who have similar interests or whose thought processes they enjoy.

(1996, online)

Hauben's awareness of a digital divide in the Internet's infant stages, and the way in which the Internet was transforming the social experience of those who used it, is as relevant today as it was then. His early consideration on the Internet and those who used it also focused on the importance of information and its sharing as the motivating factor of most Internet users:

> Net society differs from off-line society by welcoming intellectual activity. People are encouraged to have things on their mind and to present those ideas to the Net. People are allowed to be intellectually interesting and interested. This intellectual activity forms a major part of the on-line information that is carried by the various computer networks. Netizens can interact with other people to help add to or alter that information. Brainstorming between varieties of people produces robust thinking. Information is no longer a fixed commodity or resource on the Nets. It is constantly being added to and improved collectively. The Net is a grand intellectual and social commune in the spirit of the collective nature present at the origins of human society. Netizens working together continually expand the store of information worldwide.
>
> (ibid)

It may seem obvious today, but this early analysis of the Internet in 1996 is important, not only in understanding why the Internet was used in the way it was, but also – for understanding the digital divide in a developed world – in understanding how early Internet users in one community began their Internet use, and how it shaped the development of the Internet in the decade that was to follow. Simply put, Hauben's analysis shows how early Internet users were utilising it in its early years, and can be used as a comparison to how Internet users in a developing world are able (or unable) to use a 'modern'

Internet with a similar amount of previous computer and online experience, particularly when assessing a possible online public sphere.

There are also counter-arguments to the idea of online public spheres. In a 1995 article entitled "CyberDemocracy: Internet and the Public Sphere" (online), Mark Poster considers what numerous scholars before him and after him have done, namely how the Internet and use of the Internet could change one's experience of the public sphere. In the face of the proliferation of the Internet in the United States, Poster concludes:

> The age of the public sphere as face-to-face talk is clearly over: the question of democracy must henceforth take into account new forms of electronically mediated discourse. What are the conditions of democratic speech in the mode of information? What kind of "subject" speaks or writes or communicates in these conditions? What is its relation to machines? What complexes of subjects, bodies and machines are required for democratic exchange and emancipatory action? For Habermas, the public sphere is a homogeneous space of embodied subjects in symmetrical relations, pursuing consensus through the critique of arguments and the presentation of validity claims. This model, I contend, is systematically denied in the arenas of electronic politics. We are advised then to abandon Habermas' concept of the public sphere in assessing the Internet as a political domain.
>
> (1995, online)

Dean (2003) further argues the Internet is not a public sphere for two distinct reasons. The first reason Dean suggests is a problem of both lack and access (pp98-99). According to Dean the Internet lacks the individual, face to face agents necessary in an experience of the public sphere. Without this real interaction, suggests Dean, there is no guarantee that discourse will be rational enough to contribute to the experience. The second reason Dean

suggests is that the Internet, in seemingly adhering too closely to the ideals of Habermas' public sphere, allows for discourses outside of the rational and critical debates common to the public sphere to dilute the quality of discourse to such an extent that consensus is never reached. This is the problem when private (anonymous voices on the Internet) and public (an infinite number of opinions) clash – the problem of publicity (103). But this very problematic nature of the Internet may bring it closer to Habermas' theories than it may seem. Calhoun writes:

> The transformation of the public sphere that Habermas describes turns largely on its continual expansion to include more and more participants (as well as on the development of large scale social organisations as mediators of individual participation). He suggests that ultimately this inclusivity brought degeneration in the quality of discourse, but he contends that both the requirements of democracy and the nature of contemporary large-scale social organisation means that it is impossible to progress today by going back to an elitist public sphere.
>
> (1992, 3)

Through Dean's analysis of the Internet as something that is not the public sphere in the true sense of the word, and Habermas' qualifying statements as to the possibility of regaining the true public sphere, it may be that the Internet is the site for discourses and debates that, while not conforming to the definition of Habermas' public sphere, make it an important area for public political discourse in the network society. The Internet may, according even to Dean's analysis, be the closest thing to a public sphere the network society has to offer.

Whether or not the Internet is a true public sphere, instances of public discourse on the Internet have piqued the interest of scholars attempting to understand how closely Habermas' theories can be applied to the online

world. Dahlgren (2005) extends Habermas' public sphere theory to some useful conclusions regarding the Internet. Acknowledging the vast amount of interest in the potential of the Internet to foster public spheres, Dahlgren contextualises his constitutive dimensions – structures, representation and interaction – beyond an offline public sphere model, and into the online world (ibid, pp148-150). The structural dimension of an online public sphere is concerned with the ways the "communicative spaces relevant for democracy are broadly configured" (149). This has to do with the economic, cultural, social, legal and physical forces that determine how formal institutions of the public sphere – mass media and political groups – exist on the Internet. The representational dimension of the online public sphere has to do with the "output" (ibid) of these institutions, and the way in which discourses are framed and represented.

For the purposes of this study, what is perhaps the most interesting dimension Dahlgren discusses in terms of an online public sphere is one of interaction. Even in an offline public sphere, Dahlgren notes (ibid) two kinds of interaction – interaction with public and political institutions and interactions with other private citizens in the public sphere. It is on the Internet that "the sprawling character of the public sphere becomes all the more accentuated". Dahlgren's enthusiasm is tempered, however, with the acknowledgement that the kinds of discourses on the Internet leading to "deliberative democracy" (that is, democracy fostered by citizens arguing, debating and deliberation by citizens) are wholly overshadowed by non-political activities (ibid, 151). This fragmentation – both across multiple uses of the Internet as well as within the larger community of political deliberators on the Internet interacting with a virtually limitless number of opinions – depicts how the Internet is thus perfectly suited to the ideal of the public sphere, as well as to its possible destruction (154).

Analytical discussions of the public sphere and the Internet have slowly incorporated analysis of political forces on the web and the political public sphere built around these political issues – or candidates – on the Internet. Castells (2001) himself notes "societies change through conflict and are

managed by politics. Since the Internet is becoming an essential medium of communication and organisation in all realms of activity, it is obvious that social movements and the political process use, and will increasingly use, the Internet as well, making it a privileged tool for acting, informing, recruiting, organising, dominating and counter dominating" (137). While ultimately his discussion – and most others – focuses on US politics on the web (wholly benefiting from being at the forefront of technological developments on the Internet), the underlying hypothesis – that, as more and more areas of public life develop an online presence, so the public sphere will have to follow – is entirely germane to even the most digitally divided of societies. This trend of "information politics" speaks more to the general propensity of political aspects of civic life to thrive on the particulars of the Internet than to any one specific political landscape.

Albrecht (2006) raises this point succinctly in a study of public spheres within the context of digital divides. "In the light of the crisis of representation in modern democracies, it is tempting to think of the Internet as the solution to the problem. Internet technologies were expected to make politics more inclusive, by providing more people with information and providing universal, unconstrained access to the virtual public sphere" (64). Through a study of online political discussion and deliberation in Hamburg, Albrecht concludes that the online public sphere he studied mirrored, predictably, the make-up of the greater online community in Hamburg. What he also noted, however, was that a technologically deterministic view of things – in this instance, that a public sphere can only either be online, or offline – discards many of the nuanced elements of the online experience that inform and influence communication and discussion:

> The influence of technology is often reduced to a dichotomous variable. It is treated as either present or not, but its internal operations are not analysed thoroughly enough. This easily leads to a form of technological determinism that neglects the interrelatedness of the technological and the social.

(2006, 75)

Albrecht also notes that a study of an online public sphere needs to take mass communication theory more into account than it might initially seem (ibid) and that a simple understanding of how individuals may interact with the Internet is not enough to inform how a public sphere might operate as a collective. Albrecht's conclusions are easily applicable to any consideration of the digital divide elsewhere in the world: an online public sphere is at once both limited by the make-up of the online community, and possibly liberated by the nuanced communicative potential of the Internet. In addition, his study serves as a reminder that access to the Internet, and even access to an online public sphere, does not necessarily mean that online participation will naturally follow.

Dahlberg (2007) and Albrecht (2006) conclude the Internet is the perfect platform for an interactive, consultative and ultimately transformative public sphere, with its structure lending itself to the formation, sustentation and ultimately augmentation of the more traditional Habermasian public spheres. It is a hypothesis that seems easy to agree with: the Internet, as an unregulated, global network that allows for virtually real-time communication, most certainly seems to be a panacea for those disillusioned with the public spheres on offer within their physical reach. Chat rooms may replace coffee houses, yet ultimately the discourse is as free – perhaps more free – and, by quantity of potential participants alone, certain to be more enriched with different viewpoints. But that public spheres, in the aforementioned scholars' minds, seem to fit snugly within the online realm, should be of concern to scholars of the digital divide. Again, if there is an online public sphere, and it represents mostly those with access to the Internet – presumably those members of society with the most socio-economic and probably political power – then the implications for those excluded from the discourses seem grave.

Tumber summarises the apprehension and excitement that the Internet brings to future models of the public sphere:

> The development of the Internet had provoked further debate about whether the World Wide Web enhances the public sphere or disperses public discourse. Some argue that the new electronic technologies are empowering citizens to participate in new democratic forums not only between government and the governed but also among citizens themselves. This communitarian view argues that the Internet is creating new 'virtual' as opposed to physical, social formations, thereby providing a basis for a new politics and greater political participation by citizens.
>
> (2001, 22)

Tumber posits that the Internet is breaking up a unified public sphere (assuming, of course, that there was ever one to begin with), because a single public sphere "becomes obsolete as groups maintain their own deliberative democratic forums" (ibid). In contrast, Street (2001) sums up the potential of the Internet as a means of strengthening the public sphere by noting "the web appears to offer the prospect of a citizenry actively engaged in politics" (214) but he cautions by asking "but is this a realistic prospect, and is it a desirable one? Does the Internet provide salvation from the malaise that afflicts democracy? Does it function, as one enthusiast suggests, as a jukebox, which, because its tunes are chosen by the people, is listened to more intensely?" (ibid). Street (ibid) sums up the arguments for and against an 'electronic democracy' by noting both that citizens are more educated, engaged and empowered by a modern communication system like the Internet, but also that an excess of information, and a overly privatised experience of the Internet, may lead to too many choices and too little active agency.

Street's view must, however, be contextualised against the backdrop of an American political system that, because of its advanced placement in the global digital divide schema, has experimented with and perfected many elements of political public sphere involvement. Dahlberg notes that:

> "Many Internet-democracy commentators, researchers and practitioners (and even a number of policy makers), draw upon and advocate a deliberative public sphere as the ideal for citizen participation in politics, where rational debate or argumentation between citizens over common problems leads to critically informed public opinion that can guide and scrutinise official decision making processes. In relation to the Internet, these deliberative public sphere advocates are interested in the extent and quality of argumentation being facilitated online, particularly given claims that the Internet's two-way, relatively low cost, semi-decentralised and global communications, combined with evolving interactive software and moderation techniques, offer the ideal basis (particularly when compared to the mass media) for rational deliberation.
>
> (2007, 48-49)

It is also important to consider that virtual public spheres, like the coffee houses of old, may be controlled by a moderator, thus making the topics up for debate and discussion moderated as well. Edwards (2002) looks at the role of the moderator in political discussions on the Internet, and concludes:

> Moderators fulfil important tasks in organising all kinds of conditions and provisions for the discussion (conditioning function) and in the management of the discussion process itself as a collective, purposeful activity (process function). In some respects, they are also involved in the strategic function, but the strategic outline of the discussion is generally determined by the initiating agencies. In performing these tasks, moderators fulfil an intermediary role, and in this role they contribute to the interactivity and openness of Internet discussions. In the analysis, I

> emphasized the moderator's (potential) contribution to the deliberative quality of Internet discussions.
>
> (ibid, 18)

The need for online moderators has always been there, yet there is of course a certain irony in the desire to moderate opinions published on a medium like the Internet – designed to allow for multiple platforms of expression in the modern age. This is where issues such as the location of these public spheres – both in the online world and in the offline geography of the origin of its members – also become important to consider. Would digitally divided societies require more or less moderation in its online public spheres? In the case of South African Internet content and online public spheres, this is seen as a crucial point of departure. How would low Internet use, limited Internet activity, naturally segregated public spheres or contested virtual spaces affect the quality of discourse in an online public sphere? Moderation seems a likely and necessary requirement.

It is also necessary to assess whether South African may be on a similar path of fostering an online public sphere, but studies in this regard are scarce. Pejout (2004, 186), in a study of how the South African government promotes ICTs using rhetoric, provides a concise analysis of the local ICT landscape at the time of writing. He notes that "the South African [government's] vision of ICTs as tools for radical democratisation is organised around two themes: the construction of a deliberative and participatory democracy and the emergence of e-government to build a 'delivery democracy'". He goes on to say:

> Indeed, the objective of the government, as stated in its discourse, is to broaden the space of deliberation to all South Africans. ICTs are identified as the best way to do so: they give citizens the capacity to participate directly and critically in the decision making process. The public can get access to more information, without (or with less) intermediary steps that might misguide them, and even produce their own information and communicate it more

> easily ... [But] empirical analysis reveals that the Internet does not seem to make a big difference in the level of political commitment and participation.
>
> (ibid, 191-192)

For Pejout, being locked out of a meaningful public sphere experience on the Internet has a lot to do with the kinds of technology available to users. He summarises (192) that "the Internet might thus make easier the expression of opinion, but it does not necessarily mean a decisive influence on the political-legal power. Pejout notes that the public sphere is only effective once public opinion evolves into political pressure. Instead of a true South African online public sphere, Pejout surmises one "consisting of a true 'bourgeois' public sphere" (ibid). Pejout also notes (190) a potential problem in looking for meaningful use of the Internet that could lead to the development of a public sphere. He writes:

> The availability of information does not necessarily guarantee an improvement of the conditions in which citizenship is exercised. Here technical determinism prevails: the technical possibility is supposed to lead to a political effectiveness. Yet, the access to information is dependant on know-how... it is quite an exaggeration to assert that the Internet 'is the path to empowerment' (Naidoo, 1997b). Rather it is only a tool, available for the user, who is determining its 'path'. And when we look at how the Internet is used among South Africans, we can be doubtful about the asserted nature of it as an agent of empowerment.
>
> (2004, 191-192)

In a similar light, Otto et al (2007) conducted a comparative analysis of the South African IEC and Elections Canada websites (the websites of the electoral commissions for both countries) to see how each contributed towards fostering a virtual public sphere (centred, of course, around

democratic processes). Yet this study's findings suggest that the South African IEC website – far from adhering to the rhetorical ideal promoted by the government – goes only so far as to provide information about the IEC as an organisation. The study concludes:

> It seems that the IEC website was mainly used as an institutional image profiling tool. The online presence of the IEC therefore seemed less concerned with establishing an Internet public sphere – as proposed by the normative principles of the Habermasian theory – than with using the Internet as a "push technology" of information to the electorate. As a result, South African voters would have to be motivated enough to "go online", collect electoral information, and subsequently use such newly acquired knowledge in real-time public deliberation practices.
>
> (ibid, 40)

While these few studies of course do not accurately sum up a developing online environment which is perhaps changing too quickly for adequate study, it is important to bear these initial findings in mind when considering what kinds of public sphere might develop within a digitally divided society. Official public organisations are clearly attempting to promote ICTs and the power of the Internet in South Africa, yet it is clear from these studies that the South African Internet landscape is so different to its international counterparts that it is impossible to adequately compare similar online systems and services without noting the major differences in the societies of their origins. What works for one democratically established country with high Internet penetration might not work for another newly-established democratic state with low Internet penetration. Of course, the dilemma is that both societies participate in the same global Internet sphere; thus this thesis believes it is important to further study the particulars of the digital divide in South Africa and how South Africans – and the South African Internet industry – might be at a disadvantage.

Following research into online public sphere theory, research into public spheres and Internet user participation online is necessary to contextualise the undertakings of this thesis.

2.5 Citizen j*ournalism*

The precedent for a line of inquiry into citizen journalism as a possible space for a public sphere in a society is set by Han (2007), through a consideration of a South Korean citizen journalism website as an emerging public sphere. Han discusses his findings as follows:

> A public sphere is a discursive arena where citizen debate, deliberate, agree, and action (Habermas, 1989). In Ohmynews, the readers can share their thoughts and opinions. They make their own agenda and successfully distribute the agenda to the whole society. People associate themselves with the newspaper through a variety of interactive methods. Ohmynews and the readers critically discussed the soldier's case. The Internet provided the newspaper with lots of potential to help it become an open discussion board. Based on the research findings, Ohmynews is an emerging online public sphere in South Korea. However, Ohmynews is an emerging public sphere only to some extent. As Habermas (1989) pointed out, a public sphere should be guaranteed by the potential qualities of agency, self-reflection, critical judgment, the capacity for rational discussion, and moral capacity. In other words, the quality of debates and participants' moral capacity affect the existence of the public sphere. Although there were discussions in Ohmynews, the question of the debate's quality remained unanswered. Like many Websites, problems caused by online anonymity exist in Ohmynews. It was not difficult to find virtual harassment and insult in the

> discussion boards. Irresponsible arguments and false information were used to direct a discussion to an unproductive conclusion.
>
> (Ibid, 20)

Al-Saggaf's research [2006, online] into online public spheres in the Arab world through an analysis of comments posted to articles online sets further precedent for an analysis of user comments online as a space for the development of possible public spheres. Al Saggaf's findings are that:

> It would appear that the Al Arabiya site matches the criteria for an online public sphere as outlined by Poor (2005). As the findings of these studies show, the site is a public space for political discourse that is mediated online. It includes previously excluded individuals such as Arabs abroad and makes it possible for comments posted to it to be judged by their merit, not by the status of those who made them. However, the site does not seem to meet all the requirements for the public sphere model outlined by Habermas (1974, 1989). Although opinions expressed on the site were diverse and interaction among readers was good, the site did not appear to facilitate rational, critical debates, which is an essential ingredient in the public sphere model envisioned by Habermas. This finding is consistent with other studies of online public discussion.
>
> (ibid)

Albrecht (2006) investigated a space of online political debate for signs of the digital divide in Hamburg along a similar line of inquiry.

Citizen journalism websites and comments posted to articles published on the Internet can thus be used to evaluate both how the digital divide manifests online and also how it may affect the development of a public sphere online and who is able to participate in it. There is a growing body of research into why a citizen or participatory journalism website may provide a rich source of

analysis for a study on digital divides and public spheres and also why there are several elements to its structure and functioning that can be used to investigate comparisons between countries and communities of varying Internet penetration levels. Participatory journalism, or citizen journalism, is defined by Bowman and Willis as:

> The act of a citizen, or group of citizens, playing an active role in the process of collecting, reporting, analysing and disseminating news and information. The intent of this participation is to provide independent, reliable, accurate, wide-ranging and relevant information that a democracy requires. Participatory journalism is a bottom-up, emergent phenomenon in which there is little or no editorial oversight or formal journalistic workflow dictating the decisions of a staff. Instead, it is the result of many simultaneous, distributed conversations that either blossom or quickly atrophy in the Web's social network.
>
> (2003, 10)

In short, participatory or citizen journalism is a journalism – a practice normally undertaken by "professional journalists" – in the print, broadcast or (most recently) online media to collect information relevant to a citizen who forms part of any number of societies and communities, and objectively construct a report on that information for dissemination to citizens using any number of tools of transmission. Citizen journalism, in its purest form, sees the ordinary citizen – once the audience of media texts such as journalistic reports – participate in the news reporting process by collecting information and writing texts much like a journalist would. Citizen journalists may or may not be paid, depending on the website(s) that chooses to publish his or her text, but the crucial element to bear in mind is that citizen journalism is most at home on the Internet. As one of the few truly "Internet-only" methods of formalised interaction between Internet user and traditional producer of media texts, a citizen journalism website, because of its relative newness and inherent logic of encouraging Internet users to participate in either writing,

moderating or commenting on user-generated content, provides a fresh and up-to-date area for researchers to assess the zeitgeist of an Internet community. In addition, the very spirit of citizen journalism resonates best with Internet users who, presumably, feel comfortable interacting with the Internet as a medium, and who see value in the reproduction of texts on an online platform. It seems reasonable to assume that people who interact with a citizen journalism website in any way are comfortable – and potentially frequent, or at the very least, moderate – users of the Internet. In addition, given that citizen journalism evokes socially responsible behaviour from active participants, and also at the very least an interest in current affairs, news-driven content and alternative media, in its audience, it can also be assumed that a citizen journalism community is more socially responsible and potentially politically aware than the average Internet user in *any* community, let alone in one suffering from a marked digital divide. This means that one is not only more likely to find users acquainted with generating online social capital among a citizen journalism community, but also more likely to find an Internet user seeking and contributing to, some form – or forms – of an online public sphere.

The development of citizen journalism goes hand in hand with the development of blogs, or weblogs, and in particular professional news blogs. Emerging as a low-cost method of self-publication on the Internet, a blog is essentially an online "diary" written by an individual or a group of people, published in reverse chronological order. The vast majority of blogs are personal in nature, but in recent years many academics, politicians and even journalists have harnessed the power of blogging as another channel of communication with audiences. It is virtually impossible to estimate how many blogs there are at present on the Internet. A 2006 Pew study (Lenhart et al) estimated there were 12 million American bloggers, and that further 57 million blog consumers. This study also showed that while 37% of blogs were estimated to be about "my life and experiences", the most popular and publicised blogs (at 11%) were about public life. Of course, there are millions more bloggers around the world, (possibly over 100 million, if predictions are to believed) and it is not just blogs about politics and civic life that are of

importance in terms of a discussion about citizen journalism. Bloggers have shown that, in their numbers, they are a powerful force to be reckoned with, as witnessed during the 2004 Asian tsunami, the 2005 London bombings and the Hurricane Katrina disaster, to name but a few (Nieman Reports, 2005). In these instances, journalists relied on first hand, up-to-date information published on blogs, as they often did not have access to affected areas. Reminiscent of Castells' notion of scandal journalism, (Scott, 2005, 111) this growth in blog popularity during times of major news events shows just how powerful the Internet and its users are in the modern news reporting process.

Politically, blogs have played an important role in the US as forms of citizen journalism. Drezner and Farrel (2004, 2) note "under specific circumstances – when key weblogs focus on a new or neglected issue – blogs can socially construct an agenda or interpretive frame that acts as a focal point for mainstream media, shaping and constraining the larger political debate." Kerbel and Bloom (2005) note how political bloggers became so prolific and popular in the early years of the 21st century that politicians began blogging, so as to tap into an audience of media-and politics-savvy Americans. Through an analysis of a blog conceived as part of a political campaign, they note that "the Internet is emerging as a vehicle for enhanced civic involvement with the potential to counteract the negative effects of television on the political process" (3). Carlson (2007) looks at the behaviour of bloggers during the US elections in 2004. In their coverage of ongoing election activity and results, Carlson notes how blogs were both perceived to be more credible than the mainstream media (due to a general mistrust of the mainstream media and a belief that bloggers' sheer numbers would generate factually correct coverage of the elections [269-271]) as well as perceived to be inferior, as there were also many inaccuracies published on blogs during the elections as well. He notes, however, that "despite the negative attention paid to blogs as a result of inaccurate poll numbers, a narrative of blogs as a powerful new medium continue to persist" (272). Carlson thus demonstrates how blogs and bloggers seem more interested in assertion than verification, yet this is something that even modern day traditional media outlet are accused of as well. In a similar vein, Reese et al (2007) attempt to "map" the blogosphere by looking at a

number of popular blogs and their relationship with mainstream media. This study concludes that "a more complementary relationship [exists] between weblogs and traditional journalism and [a] less echo-chamber political insularity that typically assumed" (235). Given the proliferation of weblogs *by* journalists and figures in the media (Robinson, 2006; Singer 2005; Wall, 2005; Tremayne et al, 2006) – as well as the use *of* blogs as sources by journalists (Lowrey, 2006; Yang, 2006) – Reese et al note the irony in journalists using weblogs to recapture the power of their reporting, when the popularity of weblogs grew from a mistrust of traditional journalists in the first place (239).

Wall (ibid), Singer (ibid) and Tremayne et al (ibid) similarly all assess how news events – and in particular, war – have increased the popularity of blogs. Singer (2005) notes how political events in the US have also had a close relationship with bloggers in recent years, suggesting that the American public's comfort with political issues/events developing within the media was co-opted by the blogosphere to its advantage. In terms of war blogs, Wall notes:

> This is a critical moment in which to consider blogs because of the importance of news during wartime. The mainstream media, as is historically its pattern during war, became less critical of the government and military actions and more prone to repeating propaganda both in the lead-up to and during the war... This opened a space for other news providers ranging from foreign news media such as the British press, to bloggers, leading increasing numbers of Americans to turn to the Web for war news.
>
> (2005, 153)

The development of citizen journalism can be traced as far back as the early development of the modern-day press system, and also has roots in the American public journalism model of the 1990s. Of course, journalism *by* citizens is as old as the birth of newspapers themselves, as ordinary citizens (in the absence of a formalised journalism profession) would contribute letters and reports on events to early newspapers (Eksterowicsz, 2000). Thus it is

necessary to note, in a discussion about citizen journalism, that the practice of ordinary citizens contributing to the reporting of news itself is not new, nor is it out of date in the modern mainstream media. Newspapers rely on tip-offs from readers and witness accounts from the public during their reporting of stories. They also publish letters from the public and sometimes even photographs taken by readers. Similarly talk radio provides a space for continual public input in their coverage of the day's events, as well as for opinions on topics of discussion. Citizen journalism, in its latest form, is at best a modernised, repackaged form of journalism that appears to have brought the practice of journalism full circle in its endeavour to report facts on events relevant to the public through an aggregation of public and private knowledge. More importantly, online commercial media companies are looking at new ways to repackage and make money out of what is essentially an integral part of traditional news reporting.

A review of literature on online journalism, citizen journalism and experimentation in journalisms around the world suggests that citizen journalism has its roots in the public journalism movement of the 1990s. In the United States, it appears that this experiment in modern day journalism, just prior to the movement of journalism to online platforms, coupled with the penetration of Internet access across the country, formed the seeds of the citizen journalism movement – blogs. Reese et al concur that:

> Citizen-based media originate from individuals and public interest groups seeking to express an idea or position within the public discourse. Its producers need not adhere to a professional journalistic code as a requirement for participation. By definition, these non-professional media command less commercial viability and may be based on a non-profit subsidy, or no-revenue business model. They only require a motivated individual or group willing to speak to a public.
>
> (2007, 239)

In South Korea, political instability and dissatisfaction among many middle class members of society, coupled with even higher Internet penetration, also forged an environment conducive to the growth and popularity of a citizen journalism movement. Both environments of citizen journalism development are important to assess here, as they are both in contrast to the development of citizen journalism in South Africa.

To return to a discussion of citizen journalism in its abstract form (i.e. outside of a consideration of the real application of citizen journalism and its manifestation in a variety of different forms), it is clear that citizen journalism took hold in various societies due to similar reasons. In the US, the public journalism movement, coupled with high Internet penetration, saw the development of audience interactivity with traditional news media, which seems to have given birth to the popularity of this trend. Eksterowicz and Roberts provide a detailed analysis of the public journalism movement and its successes and failures:

> The notion of public, or civic, journalism currently challenges more traditional notions of journalism. While traditional journalism recognises objectivity and detachment as a moral and philosophical foundation for the practice of journalism, public journalism represents an attempt to connect journalists with the community in which they operate. It places citizen input at the centre of journalistic concern.
>
> (2000, xiii)

Eksterowicz (2000, 4) notes that public journalism too has its roots in the muckraking practices of the early press. Defined as a practice adopted by the first journalists of exposing or revealing information through a process of shock and scandal in the press, in the hopes that educating the reader would spawn action, muckraking, for Eksterowicz, "exhibits the best tendencies of investigative journalism but with a goal of public reform" (7). Eksterowicz notes that elections in the late 1980s in the US would "serve as a catalyst for

the initiation of public journalism" (8-13), as a general mistrust of messages put out by politicians would see a need from citizens wanting to know more about the political processes and promises they were being fed. Nichols et al (2006, 1) similarly note how "the movement arose in response to a perceived crisis in the role of the press in constituting a public sphere in which citizens could understand and engage productively with the issues of the day". Woo similarly notes how Jay Rosen, an early proponent of the public journalism movement, framed the push towards this kind of journalistic interactivity:

> Traditional journalism is about separations, he said. Public journalism is about connections. Traditional journalism is about remaining detached. Public journalism is concerned with making attachments. Traditional journalism seeks to inform the public and act as its watchdog. Public journalism tries to strengthen "the community's capacity to recognise itself, converse well, and make choices".
>
> (2002, 27)

Tumber (2001, 26) also notes how the public journalism movement grew in response to a "malaise in public life", brought on by traditional media practices. Experiments in public journalism in the US did not always prove to be successful, yet it is clear that the spirit of the movement lives on in a variety of forms, including citizen journalism and blogging. Tumber (ibid, 29) notes how "people [were] telling their own stories" on the Internet, through e-mail and discussion forums while as early as 1996, Hauben (available online) noted some early Internet users were using these online platforms to muckrak. In fact, it was the power of the Internet as a medium that would transform the disjointed telling of stories and desires among citizens to play a real role in the reporting of the news. Witt notes:

> The transformation is being powered in part by technological advances that have reduced the cost of publishing. Today anyone with access to a computer can have the equivalent of a printing press – indeed, everyday

> citizens can have a multimedia publishing house with global reach, at their fingertips. Much of what public or civic journalists were struggling so hard to accomplish for more than a decade from mostly within the news media is suddenly being thrust upon the entire news media from the outside at lightning speed. Few saw it coming.
>
> (2004, 1)

Thus, for a variety of reasons, the development of websites such as MyMissourian (Bently et al, 2007) or Nowpublic.com in the US seems to result from the proliferation of blogs, and their acceptance as reasonable and reliable media texts (particularly within the framework of war coverage and political coverage), as well as from the spirit of the public journalism movement which sought to close the gap between media producer and media consumer in the areas of public and political reporting. In fact, citizen journalism has become so prolific in the US that academics (Papandrea, 2007) are beginning to look at whether or not citizen journalists can also enjoy the privileges afforded to trained journalists, because of the methods they are practising in gathering their information. In terms of a consideration of a digital divide, it is also important to bear in mind that high levels of Internet penetration in the US would foster the growth of citizen journalism and blogging among ordinary citizens, largely speeding up the aims and processes of the public journalism movement, transforming it into a far more organic form of citizen participation that its original inception was able to foster.

Wall (2005, 157) classifies the type of journalism undertaken by bloggers ("personal journalism, do-it-yourself journalism, black market journalism, 'we media', and post-modern journalism [ibid]) and it is apparent that some bloggers undertake participatory journalism through the simple act of writing about war. Interestingly, it is the agenda-setting practices of the mainstream media that turn blogging into participatory journalism – i.e. bloggers that *happen* to be blogging about something happening in an area within a war zone could be deemed citizen journalists, but only because of their relative

closeness (both geographically and in terms of topic) to an event reported on in the mainstream media. This exemplifies the way in which mainstream media have commoditised this practise into a product that they can sell on to their consumers. But blogs remain a powerful force to be reckoned with – more powerful in their sum than any one citizen journalism website, it would appear. In fact, Russo (2006) considers incorporating US bloggers under the definition of news media in terms of the Freedom of Information Act.

To better inform an understanding of how the digital divide may be affecting South African citizen journalism websites, and the development of a possible online public sphere around citizen journalism, it also necessary to assess successful examples of citizen journalism to as to better make comparisons between these sites and what is happening in the South African context. Ohmynews has emerged as one of the most successful Internet news websites in recent years, and most certainly the most popular citizen journalism website in the world. South Korea's political landscape in the last twenty years, as well as its high rate of Internet penetration, are credited as the two main reasons for the development of Ohmynews and its popularity and power within South Korea. Kim and Hamilton assess the particulars that lead to both the popularity of citizen journalism in South Korea as well as the high penetration of Internet in the country (and thus the large degree to which South Koreans use the Internet). They note:

> High housing and population densities make the cost of expanding the infrastructure comparatively less than it would be for a more widely spread population.... In addition, the economic collapse of the late 1990s increased the attractiveness of dotcom companies because the Korean government supported them to overcome the economic crisis... One must also consider how the presence of Confucianism in Korean culture played a crucial role. In Confucianism, adhering to discipline and manners is more important than arguing on behalf of one's own ideas. However, the anonymity of the Internet

> provides a space for expressing individual desire and personal ideas and opinions without calling attention to oneself by name.
>
> (2006, 549)

The popularity and power of Ohmynews in South Korean culture should not be underestimated. Kim and Hamilton note that "there is little doubt that Ohmynews has edged its way into the public sphere in South Korea" (550) and that Ohmynews viewpoints "in relation to Korean society's political structure of progressive and conservative ideologies, represents the progressive group and exercises political influence" (552) – influence "best seen as inextricably intertwined with Korea's specific historical, social and cultural conditions. In particular, Ohmynews should be seen in relation to the expansion and fragmentation of Korean civil society, the increasing significance of differences between different generations, and a long-standing scepticism toward conservative mainstream media" (522). In fact, in 2002, Ohmynews would manage to get its preferred candidate elected into the highest political office in the country. Kim and Hamilton conclude:

> In sum, Ohmynews.com's success in exercising progressive influence is the result of the social and political conditions of Korea's recent history: social fragmentation, which pursued the expansion of Korea's citizen society and various values; the appearance of new generations who pursued news values vis-à-vis the tested interests of older generations; and people being dubious of mainstream media, a critical stance which grew under dictatorial regimes.
>
> (ibid, 555)

Sutton (2006) assesses usage of Ohmynews from a uses and gratifications perspective, in an attempt to understand what might be motivating users to continue to practice citizen journalism. He finds:

> [The] strongest single motivating factor was to exercise freedom of expression, and their most sought after general gratification was information dispersal. Based on the theoretical assumptions and the empirical evidence that we have identified, therefore, the author would conclude that the motivations of citizen journalists in Korea stem from a combination of technology and a new democracy. In other words, the growth of citizen journalism can be attributed to the evolution of communication technologies tightly combined with the willingness of individuals to utilise these new possibilities. While not technologically deterministic, Korea's outstanding information infrastructure has enabled easy access to enthusiastic individuals who desire the development of democracy through free expression of information. The experience of Internet-based participation in Korea, therefore, illuminates the powerful combination of citizens and cyberspace, potentially forming an information age public sphere. Citizen journalism in Korea is therefore a new form of participatory mechanism, helping to defend, foster and nurture the continuing development of democracy.
>
> (ibid, 39-40)

The growth of citizen journalism in the two countries where it is most popular helps us to understand why citizen journalism in South Africa may – or may not – be successful and how this might be influenced by the digital divide in South Africa. There is limited information – in fact, there are hardly any examples of citizen journalism at all – on South African citizen journalism, save for a few studies into local blogs, and statistical information on the traffic experienced by Reporter.co.za, one of the country's only stand-alone citizen journalism websites. There are many websites which encourage participation and debate among users (www.friendsofjz.co.za; www.thoughtleader.co.za; www.commentary.co.za; www.hellopeter.co.za), and there are examples on these websites of citizen journalism – or at the very least, of citizens practising

information gathering or reporting. Reporter.co.za and MyNews24 are the only two local citizen journalism websites that appear to follow a similar line of production to Ohmynews or MyMissourian.com. Similarly, in contrast to the wealth of information available on the use of blogs to report the news by both professional journalists and citizen journalists, literature about local South African blogs is almost entirely lacking. In the only local study available for use in this thesis, Goldfin and van der Merwe (2007) study the role a political blog www.commentary.co.za plays in South African society, but their results are muted at best. Only five respondents are used in the study (as a direct result of the reasonably small number of Internet users interacting with www.commentary.co.za in the Johannesburg area – a requirement of their study). The panel of users conclude:

> Selected bloggers agree that the function of a blog in South Africa is to provide citizens with an alternative source of news, add more perspectives to the events and issues of the day, and initiate conversation... Selected bloggers also agree that blogs will not replace journalism but have a distinctive role to play in the media world. Within the South African context, bloggers believe that blogs are subservient to the mainstream media as they depend on them for information... Unfortunately, most South Africans are not aware of blogging and the potential it has. The majority of the population does not have access to the Internet, and thus cannot participate in the sharing of information and ideas in a blogging community. A blog should not only be a medium for those with money and education, but for all members of South African society. In talking and debating about specific issues, and exchanging information for all to see, members of society could become better informed and self-governing. Until all members of society have access to the medium, blogs cannot be viewed as entirely democratic.
>
> (ibid, 120)

The reviewed literature has thus looked at the following: an understanding of Castells' theory of the network society and why the notion of the digital divide is crucially important; a consideration of the concept of the digital divide as well as a discussion of analytical models of the digital divide (with emphasis on the disappearing digital divide, the persistence and growth approach and emerging digital differentiation as trends to identify in South African internet access statistics); an evaluation of Habermas' public sphere and modifications to public sphere theory to include online spaces; precedents for how citizen journalism websites and online comments can be used to evaluate the existence of online public spheres and finally, considerations of citizen journalism and differing citizen journalism models around the internet as a possible consideration of how the digital divide may be affecting their growth.

This thesis will thus begin its evaluation of South African Internet access statistics so that growth in Internet access can be investigated for signs the four models of the digital divide. From there, this thesis will investigate usage of MyNews24, a South African "citizen journalism" website in an attempt to look for signs of these four models in online South African usage behaviour. It is at this point that the possibility that MyNews24 may be the site of online public spheres will be considered, and an investigation into how the digital divide may be manifesting in these public spheres will be conducted.

Chapter 3:
The digital divide in South Africa

Scholarly research on the digital divide in South Africa has been shown to be limited. This thesis will therefore investigate Internet access in South Africa from a macro- to a micro-level, in order to test each of the four digital divide models on South African Internet access. Each theory will be tested in two areas, first in the area of Internet access measures in South Africa, and second in the area of online activity and participation. This chapter will investigate these four theories by assessing statistics of Internet access in South Africa; however, due to the fact that there is no comprehensive collation of information on South African Internet access, this thesis will draw upon information provided from a variety of sources. Information available is limited, and will be demonstrated to also be in some ways misleading. Each digital divide model – the denial approach, the disappearing digital divide, the persistence and growth approach and the emerging digital differentiation model – will be evaluated through an interrogation of South African Internet access statistics.

3.1 The global digital divide

To appropriately understand the digital divide in South Africa, Internet access must be understood within the global context of Internet access and use. It is expected that there will be a difference between Internet access penetration in developed and developing countries, and that South Africa will compare unfavourably to the global average. High speed Internet access is also expected to be far less prevalent in South Africa than in developed countries. According to Internetworldstats.com (2008), just over 1.46 billion of the world's 6.6 billion people have access to the Internet. The digital divide from a global perspective is apparent when one compares a region's population as a percentage of the global population, and a region's Internet users as a percentage of the total number of global Internet users (*Figure 1*). Africa, with just over 900 million people, only accounts for 51 million Internet users,

making up only 3.4% of the global Internet population and representing a continental Internet penetration rate of just 5.3%. South Africa, with a population of just over 43 million people, has slightly over 5 million people, or 11.6% of the population, with Internet access, and accounts for over 10% of the total online African population. But there is no consensus on specific numbers of Internet users; SAARF (2008a) notes that 10.3% of the *adult* population (in total just over 32 million South Africans) had 'accessed the Internet in the past twelve weeks' in 2008. Statistics on Internet usage by frequency of access and type are also vague (features which would speak to the quality of Internet access available); an October 2007 estimate from WorldWideWorx.com (2007, online) suggests that only 650 000 people in South Africa access the Internet using broadband – or high speed – technology.

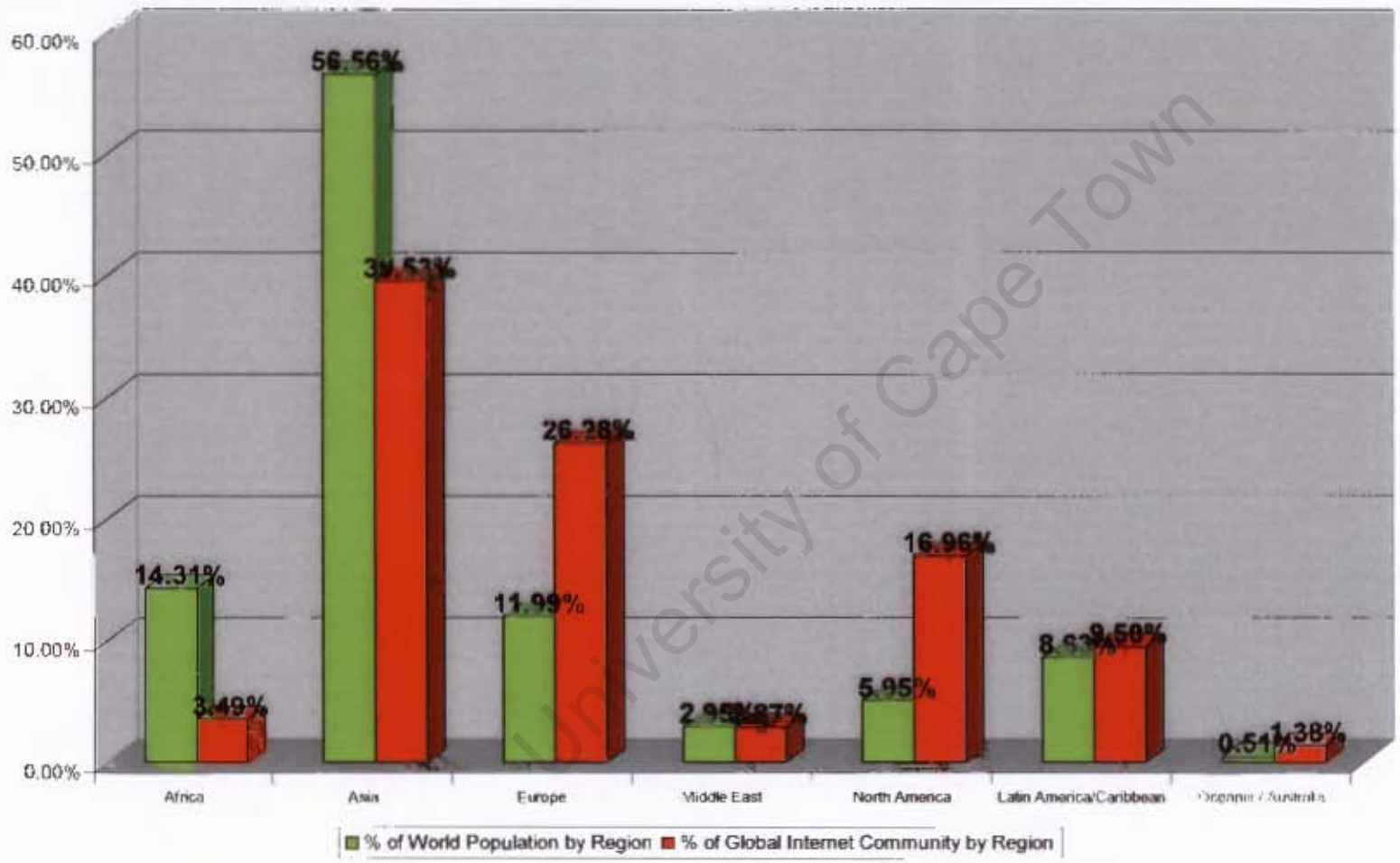
In contrast, for example, North America – home to just over 337 million people – boasts (according to an Internetworldstats.com 2008 figure) roughly 248 million Internet users; or almost 75% of the total population. This figure accounts for almost 17% of Internet users worldwide. The United States contributes the bulk of North America's internet users: 220 million of the country's 303 million inhabitants use the Internet, which represents a penetration rate of 73% and makes up 15% of Internet users worldwide. Horrigan et al (2008) state that 55% of American adults have broadband Internet access at home.

In Asia, 15.3% of the population uses the Internet, with China comprising almost 48% of all Internet users in the region, with a 19% penetration rate. In South Korea, the "global market leader in broadband penetration" (Broadband Working Group, 2005), 12 of its 15 million households have broadband Internet access. Internetworldstats.com (2008) notes that 34.8 million of South Korea's 49.2 million people have access to the Internet in total, which results in a 70.7% penetration rate. On the other end of the spectrum, Internetworldstats.com (ibid) notes that just 1000 of Liberia's 3.3 million people (or 0.033% of the population) have access to the Internet. The African country with the most dramatic growth (48 900%) in Internet access over the

last six years is Somalia – from 200 to just 98 000 people in a country of 9.5 million people (*Figure 2*).

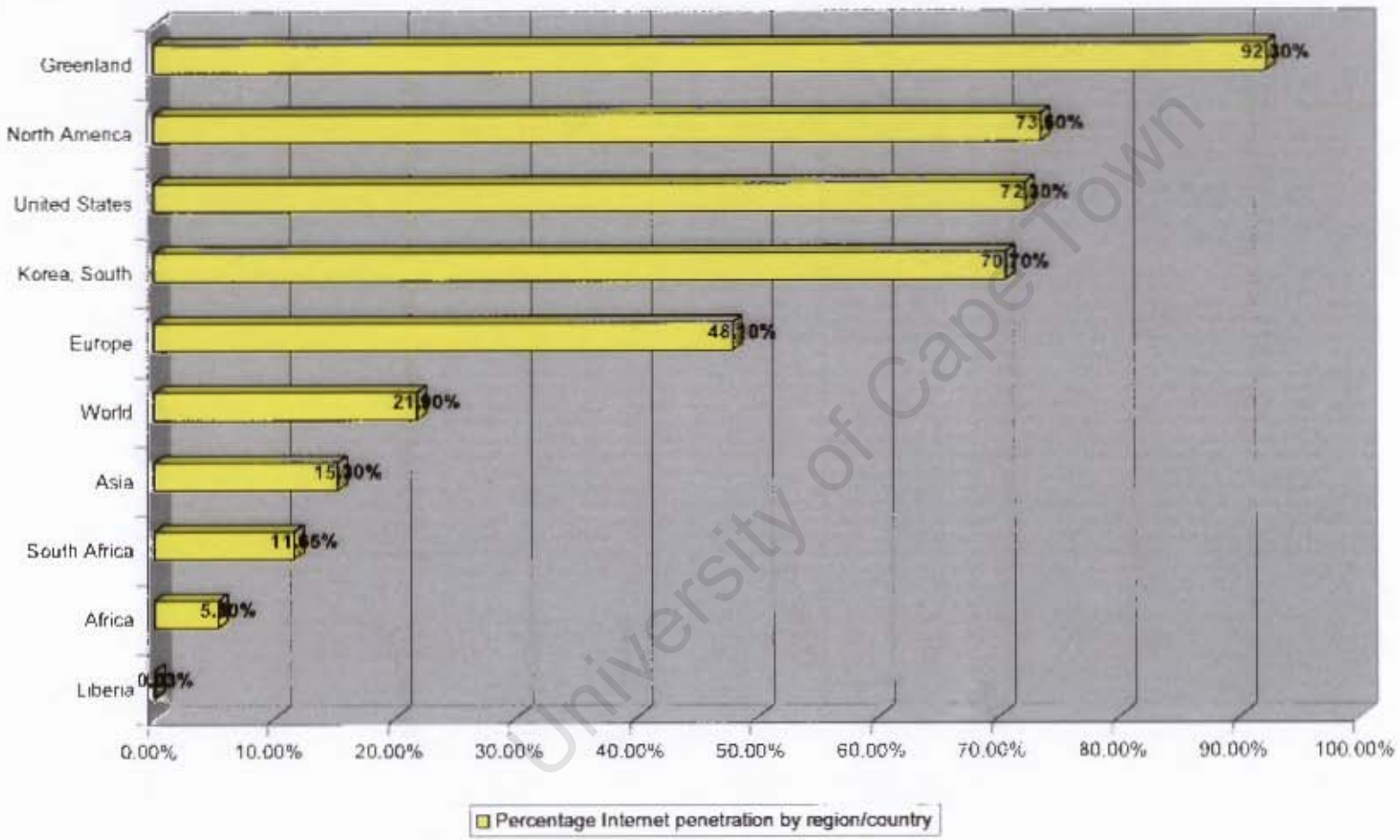
It is clear that an inequality does exist between the number of people with access to the Internet as a percentage of the population between developed countries and developing countries. This shows that there is statistical evidence of an inequality of access to the Internet in various global regions.

Figure 1: Percentage of global population and of global Internet users per region



(Internet World Stats, 2008)

Figure 2: Snapshot of Internet penetration per region showing scope of digital divide



(Internet World Stats, 2008)

These graphs demonstrate several key points about Internet access on a global scale. First, that Internet access varies dramatically among continents and countries. Second, that a correlation seems to exist between levels of Internet access in a region and that region's status as either a developed or a developing country/continent. Third, even among developed countries, there is considerable variation in Internet access levels. Fourth, South Africa lags far behind global and continental averages of Internet access in 2008. And fifth, South Africa has almost double the rate of Internet access penetration when compared to Africa as a whole.

Van Dijk and Hacker (2003, 10) describe the denial approach to the digital divide as one which either refutes its existence or trivialises it, yet based on a comparison with other parts of the world, the levels of Internet penetration in South Africa – and other African countries – are of concern, given that they are well below the global average of 21.9%. When compared to other countries, South Africa is not worst-off when it comes to Internet penetration, but is clearly experiencing some form of digital divide when compared to more developed parts of the world. From a simply empirical perspective, the difference between South Africa and, for example, the United States or Greenland calls for more investigation, and from a technologically deterministic approach (which this thesis has adopted based on the importance of connectivity in Castells' networked society theory) it is of concern. The denial approach can thus no longer be considered an appropriate theory for observing and understanding slow growth in Internet penetration levels in South Africa. The remaining three approaches – the disappearing digital divide approach, the emerging digital differentiation approach, and the persistence and growth approach – need to be similarly tested on statistical information of South African Internet access.

3.2 The digital divide in South Africa

Statistics from SAARF (2008a) on frequency of Internet access among adult South Africans provide the basis for an analysis of Internet access in South

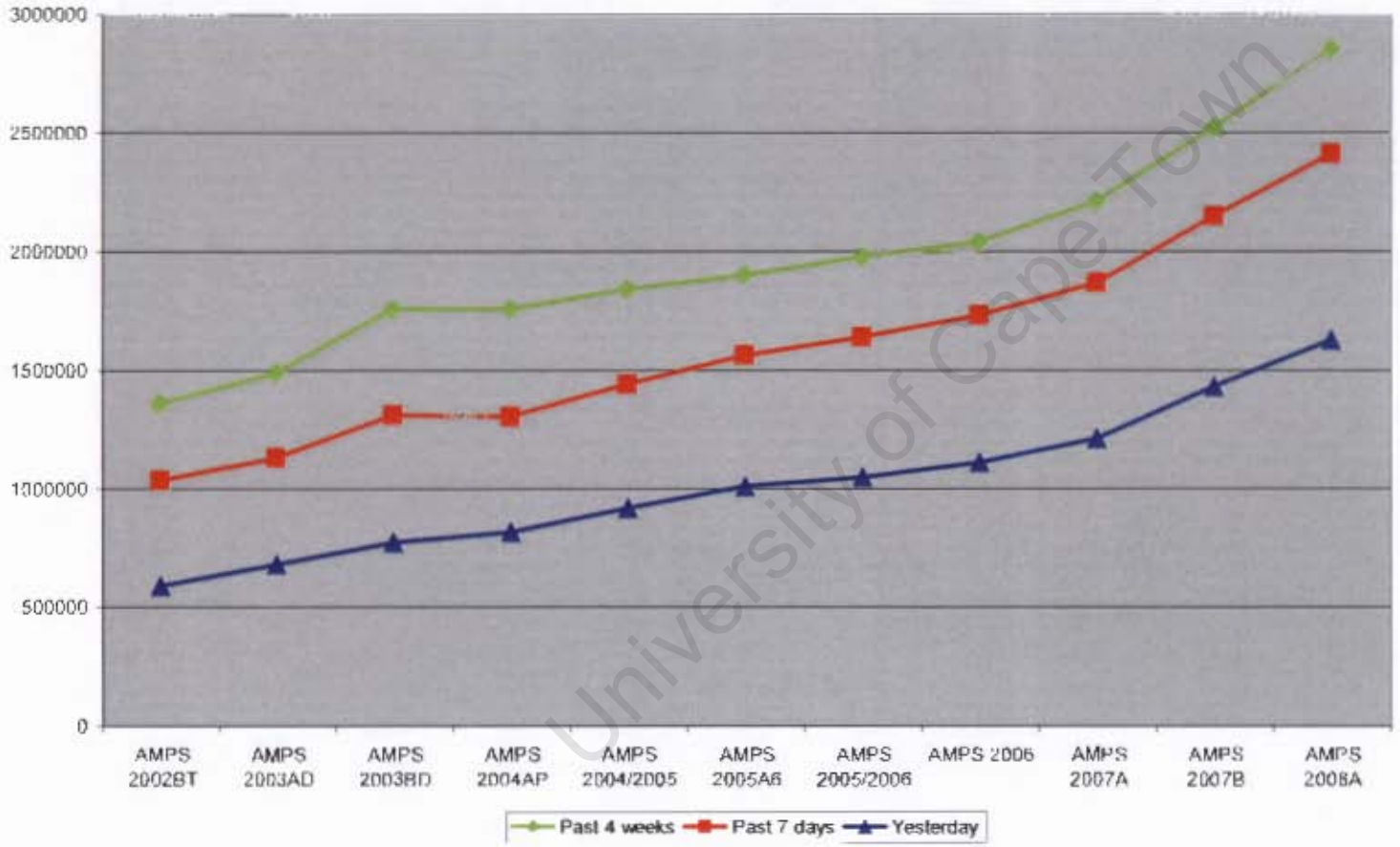
Africa. According to SAARF's AMPS (All Media and Products Survey) from 2002-2008, frequency of Internet access has grown according to three measures of frequency of access. This thesis draws on three research questions from SAARF's AMPS Internet usage survey to investigate frequency of Internet access, namely:

- Have you **PERSONALLY** accessed the Internet/World Wide Web in the **PAST 4 WEEKS**
- Have you **PERSONALLY** accessed the Internet/World Wide Web in the **PAST 7 DAYS**?
- Did you **PERSONALLY** access the Internet/World Wide Web **YESTERDAY**?

Respondents were required to answer either "yes" or "no" in sequential order. Should a respondent answer "no" to any question, they were told to skip ahead to the following section. The cumulative effect of these three questions must be considered – users who said they had accessed the Internet 'yesterday' were automatically included in the tally of users who had accessed the Internet in the 'past seven days' and 'past four weeks'. Similarly, users who had only accessed the Internet in the 'past seven days' were also included in the tally of those who had accessed the Internet in the 'past four weeks'. This means that each successive group consists of a sum of different kinds of Internet users, and not a reflection of 'only' those users who had used the Internet within a certain period of time. These three categories can also be described as high, moderate and low Internet use (based on frequency of use as an indication of user-behaviour).

The following graphs depict the SAARF statistics gathered over a six-year period that will be used by this thesis as the basis for an investigation into Internet access in South Africa. Internet access in South Africa, as measured by frequency of access, is shown by the total numbers of adult South Africans who responded "yes" to each question (Figure 3). This is done to take into account changes recorded by SAARF in the country's population size over this time.

Figure 3: Adult South Africans who accessed Internet 'Yesterday', in the 'Past Seven Days' and in the 'Past Four Weeks'



(SAARF, 2008a)

This graph seems to suggest the total number of adult South Africans who experienced Internet access over the 'past four weeks' and 'past seven day' period had grown at a more rapid pace since 2007 than the total number of adult South Africans who accessed the Internet 'yesterday' only. Prior to 2007 however, growth in Internet access in the 'past four weeks' was not as dramatic. On the whole, there appears to be a similar trend of consistent growth. The scale of this graph must not be ignored – in 2008 less than three million adult South Africans said they had accessed the Internet in the 'past four weeks', and even fewer adult South Africans reported accessing the Internet more frequently than that. Thus while the trend speaks to an increase in Internet access, the scale demonstrates it is still an increase in a consistently small segment of the population. Perhaps due to these low numbers, over a six year period the number of people who reported accessing the Internet in the 'past four weeks' has doubled; the number of people who reported accessing the Internet in the 'past seven days' has increased almost 2.5 times; and the number of people who reported accessing the Internet 'yesterday' had tripled. This appears to support a disappearing digital divide, which argues that an increase in Internet access over time suggests the digital divide is decreasing. However, it remains to be seen if the other element of the disappearing digital divide model (that "once access gaps are bridged, there will be homogenous Internet use patterns" [Peter and Valkenberg, 2006, 296]) can be proven.

It is problematic to try to draw conclusions from trends demonstrated over a six-year period only, however it is interesting to speculate how long it would take for even the fastest-growing frequency of access ('yesterday') to become more prevalent. If the number of people accessing the Internet 'yesterday' were to continue to increase at the same pace as it had from 2002-2008, almost the entire adult South African population would report accessing the Internet 'yesterday' by 2026, which would be a phenomenal sign of progress. This is of course impossible to predict and a far too simplistic means of projecting the future of Internet access, because it completely disregards social, economic, political and personal factors which may influence people for or against using the Internet in the future. It does not take into account simple

things like changes in the population size, or a reduction in costs involved with Internet access, for example. It also does not take into account what has driven this growth over the last six years, so it is impossible to determine whether it would even be possible to sustain such growth. If, by 2008, only 72% of people in the US have access to the Internet, then 90% Internet penetration in South Africa seems unfoundedly ambitious. If one projects a more modest 200% growth in Internet access in the 'past four weeks' into the future, then just over two-thirds of the population would report accessing the Internet infrequently by 2032. These simplistic projections still suggest at best a twenty-year period where some South Africans will persist in not accessing the Internet frequently. At worst, it suggests almost a thirty-year period where a few South Africans may not even access the Internet at all. While it can therefore be said the disappearing digital divide model describes the trend(s) evident in the graph, the scale of the growth of Internet access in South Africa suggests that inequalities in Internet access won't – or can't – be overcome quickly. It seems unlikely that growth rates of 200-300% can be sustained in South Africa, meaning that there could still be several decades where a minority – perhaps even a majority – of people do not access the Internet at all. This must surely be of consequence when Internet access is currently so much more prevalent in other parts of the world. While the disappearing digital divide model is thus technically correct in describing Internet access in South Africa since 2002, it appears to oversimplify what would otherwise be a concerning trend of low levels of Internet access in South Africa. Over a long-enough time period, the digital divide in South Africa may be said to be disappearing, but that should not suggest that the effects the inequalities of access may have on a population over said time period should not be better studied and adequately understood.

Further interrogation of these statistics is therefore required. SAARF figures are problematic to analyse conclusively, however, unless each category of frequency of use is separated into new groups of access showing each period of time in isolation. This reworking, which has yet to be undertaken in any academic research on South African Internet access, can be used to better understand what kind of frequency of Internet access is most dominant, and

which kind has grown the most over the same sample period. This will be done by taking the SAARF statistics and first removing the cumulative effect and then subtracting these percentages to determine whether the differences between these groups of users is increasing or decreasing. This will be done using Bonfadelli's 'knowledge gap' approach (2002). In his study, Bonfadelli attempted to track the differences between groups of the Swiss population with access to the Internet over time. Bonfadelli found that not only did access across demographical groupings increase over time, but the gaps between these groups' access to the Internet did as well (ibid, 75). This approach will thus be enacted on SAARF Internet access figures.

In order to conduct a study modeled on Bonfadelli's on South African Internet use, SAARF's AMPS figures were used from 2002 to 2008, and percentages were calculated to provide statistical data on the number of South African adults who had only accessed the Internet over certain periods of time; namely the last day, within the last week, or within the last four weeks. The calculation was done first by subtracting the percentage of people who had accessed the Internet 'yesterday' from those who had accessed it in the 'past seven days' (which included those who accessed it 'yesterday'). The total percentage of people who had accessed the Internet in the 'past seven days' was then subtracted from the total percentage of people who had accessed the Internet in the 'past four weeks' as well. The results – a measure of only those who had accessed the Internet in the 'past four weeks' (but not in the 'past seven days' or 'yesterday'), the 'past seven days' (but not 'yesterday') and 'yesterday' – are recorded in the following table:

Table 1: Removing the cumulative effect

	AMPS 2002BT	AMPS 2003AD	AMPS 2003BD	AMPS 2004AP	AMPS 2004/ 2005	AMPS 2005A6	AMPS 2005 /2006	AMPS 2006	AMPS 2007A	AMPS 2007B	AMPS 2008A
Population Size ('000s)	*29 583*	*29 773*	*29 773*	*30 310*	*30 656*	*30 656*	*30 903*	*30 903*	*31 109*	*31 109*	*31 303*
4W (%)	*4.6*	*5*	*5.9*	*5.8*	*6*	*6.2*	*6.4*	*6.6*	*7.1*	*8.1*	*9.1*
Difference	**1.1**	**1.2**	**1.5**	**1.5**	**1.3**	**1.1**	**1.1**	**1.0**	**1.1**	**1.2**	**1.4**
7D (%)	*3.5*	*3.8*	*4.4*	*4.3*	*4.7*	*5.1*	*5.3*	*5.6*	*6*	*6.9*	*7.7*
Difference	**1.5**	**1.5**	**1.8**	**1.6**	**1.7**	**1.8**	**1.9**	**2.0**	**2.1**	**2.3**	**2.5**
Yesterday (%)	**2**	**2.3**	**2.6**	**2.7**	**3**	**3.3**	**3.4**	**3.6**	**3.9**	**4.6**	**5.2**

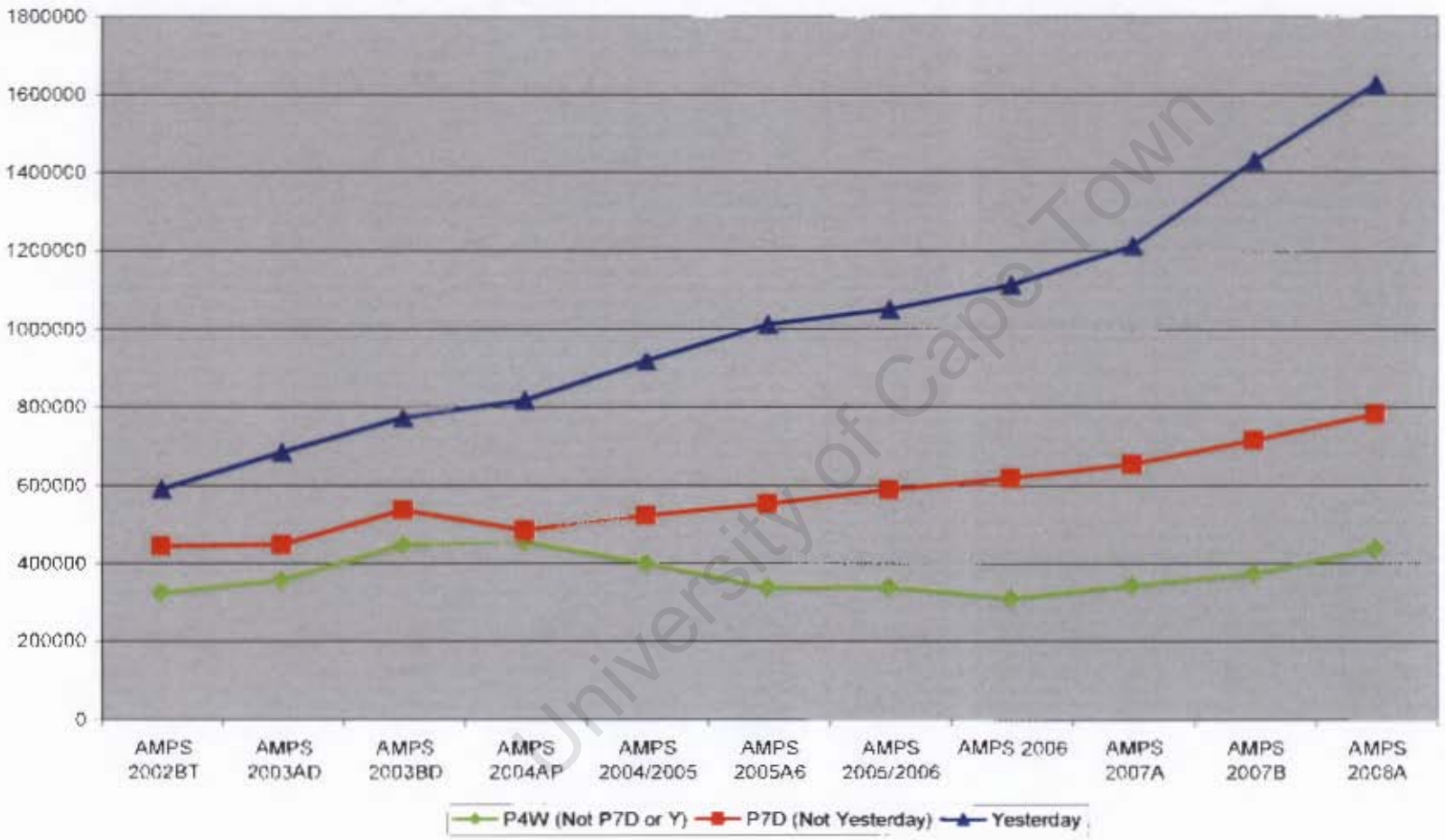
* SAARF Universe: Adult population in '000

(SAARF, 2008a)

The differences between access frequencies reflect the real number of adult South Africans who only accessed the Internet in the past four weeks and past seven days respectively (based on the knowledge that each percentage is cumulative). For example, given that the figure reflecting the percentage of adult South Africans in the past seven days in 2006 who had accessed the Internet is 5.6%, and that this includes those who accessed the Internet yesterday, but does not include those who accessed the Internet in the past four weeks, the difference of 2% (between the 5.6% and 3.6%) can be taken as the percentage of South Africans who had accessed the Internet in the past seven days, but not yesterday. According to these figures, the percentage of South Africans who have accessed the Internet 'yesterday' has grown sharply over the last four years, whereas the percentage of South Africans who have accessed the Internet in the 'past seven days' and in the 'past four weeks' has grown to a lesser degree. While it may thus initially appear that Internet access is improving in South Africa, this representation of these statistics indicates fluctuations in consumption patterns by people accessing the Internet, when measuring their frequency of access.

Given that the SAARF statistics are a percentage of the total number of adults estimated living in South Africa during the sample period, and that that number grows in estimation from sample to sample, it is necessary to understand these percentages in terms of real numbers (*Figure 4*) of Internet users, and not just as a percentage, to avoid the misrepresentation and possible under-representation of results due to population growth. A calculation *(Table 2)* of the difference in numbers of South Africans between different groups of Internet users (as measured by their frequency of access) using these recalculated figures also demonstrates *(Figure 5)* how South African Internet users are accessing the Internet more frequently – or less infrequently – over time. The result is depicted *(Figure 6)* as the proportions of Internet users as measured by their frequency of access over time.

Figure 4: Number of people accessing Internet 'yesterday', in the 'past seven days' and 'past four weeks'



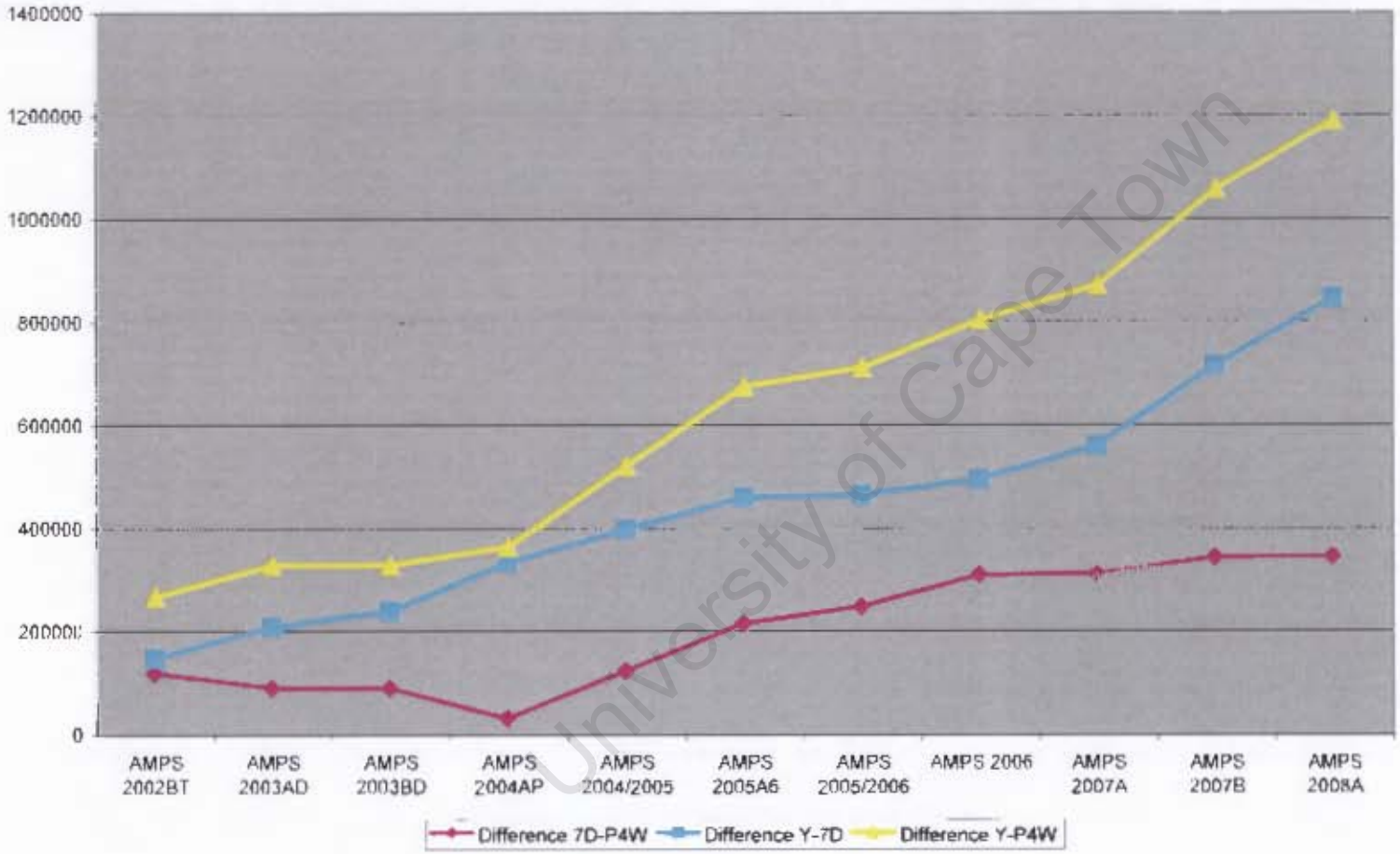
(SAARF, 2008a)

Table 2: Difference between groups accessing Internet 'yesterday', in the 'past seven days' and 'past four weeks'

	AMPS 2002BT	AMPS 2003AD	AMPS 2003BD	AMPS 2004AP	AMPS 2004/ 2005	AMPS 2005A6	AMPS 2005 /2006	AMPS 2006	AMPS 2007A	AMPS 2007B	AMPS 2008A
P4W (Not 7D or Y)	1.1	1.2	1.5	1.5	1.3	1.1	1.1	1.0	1.1	1.2	1.4
Difference	**0.4**	**0.3**	**0.3**	**0.1**	**0.4**	**0.7**	**0.8**	**1**	**1**	**1.1**	**1.1**
P7D (Not Y)	1.5	1.5	1.8	1.6	1.7	1.8	1.9	2.0	2.1	2.3	2.5
Difference	**0.5**	**0.7**	**0.8**	**1.1**	**1.3**	**1.5**	**1.5**	**1.6**	**1.8**	**2.3**	**2.7**
Yesterday (%)	2	2.3	2.6	2.7	3	3.3	3.4	3.6	3.9	4.6	5.2
Difference Y – P4W	**0.9**	**1.1**	**1.1**	**1.2**	**1.7**	**2.2**	**2.3**	**2.6**	**2.8**	**3.4**	**3.8**

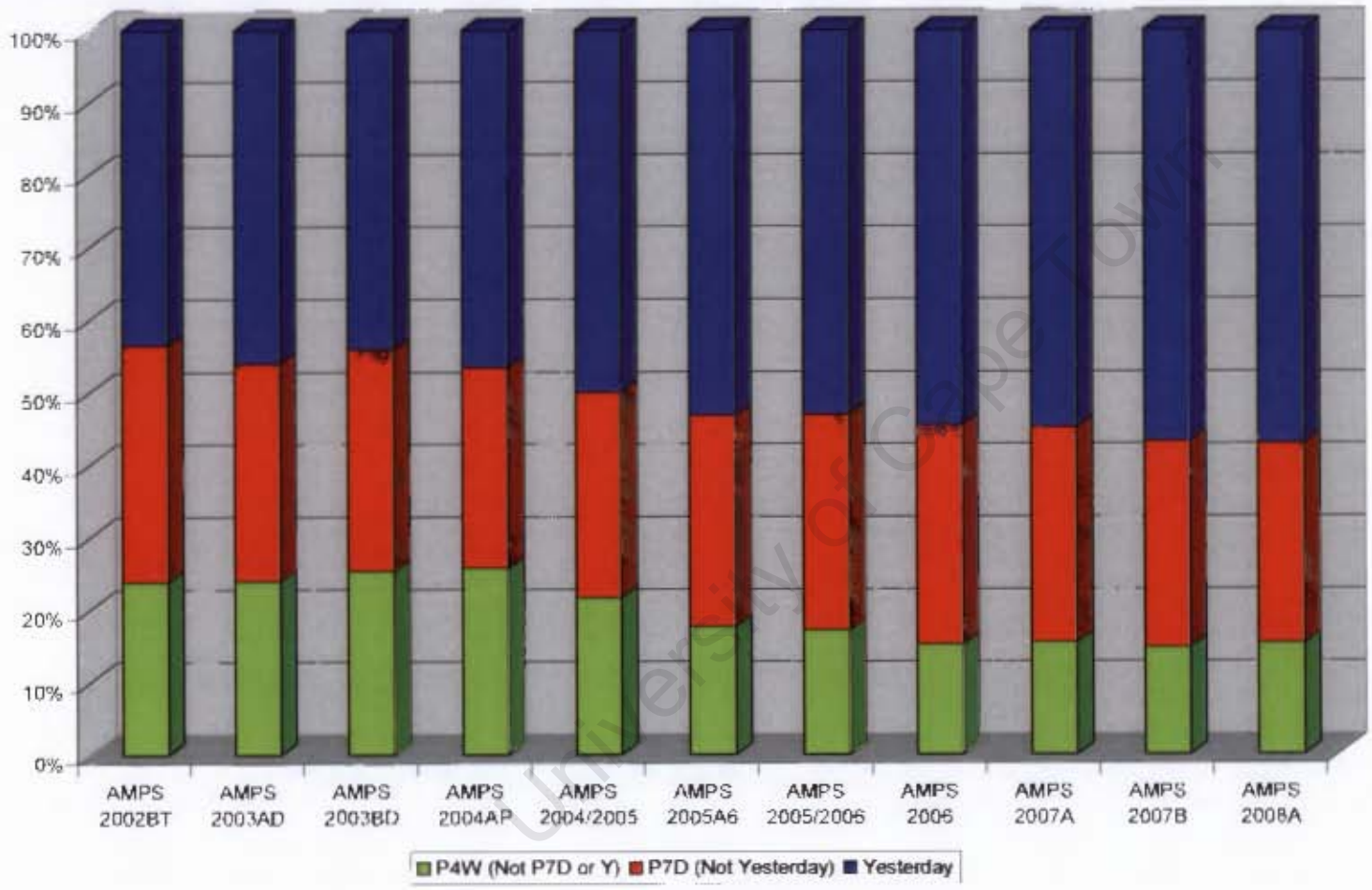
(SAARF, 2008a)

Figure 5: Growth in access gaps over time in numbers of South Africans AMPS 2002B-2008



(SAARF, 2008a)

Figure 6: Proportion of 'yesterday', 'past seven days' and 'past four weeks' of Internet users



(SAARF, 2008a)

Figure 4 depicts a situation far more complex than the previous graph *(Figure 3)* initially suggests. What is demonstrated here is that over time, far more South Africans reported accessing the Internet 'yesterday', as opposed to the 'past seven days' and 'past four weeks'. This could be due to three reasons. First, it could be because Internet users have increased their frequency of access steadily over time. A steadily growing number of people may be beginning to access the Internet infrequently ('past four weeks') and then gradually access it more frequently ('past seven days') until they become frequent ('yesterday') users of the Internet. This could happen gradually but continually over time. This is conceivable, as it stands to reason that the more exposure an Internet user has to the Internet, the more they may want to use it. However given that there is not a steady increase over time in all three measures, the trend seems more complex than this. A perfect model for this trend would be a steady number of infrequent ('past four weeks') and moderate ('past seven days') Internet users, and an increasing number of frequent ('yesterday') Internet users. A second explanation could be that some Internet users are leapfrogging their frequency of Internet access over time. This means some new Internet users could immediately begin accessing the Internet frequently ('yesterday') or moderately ('past seven days'). This would make it impossible to determine where on the graph new users are appearing and where existing users are moving. A more complex third version could be that not only are new users emerging at varying points on the graph, but that some are stopping altogether and larger numbers of new users are replacing them along the way. More research would be needed into changes in frequency of Internet usage over time across the population, particularly from a uses and gratifications perspective so as to identify what factors (motivational, physical, educational etc) could be influencing people.

While it is thus impossible to describe with certainty what is fueling the varying growths in these three groups of Internet users, it is clear that the number of infrequent ('past four weeks') and moderate ('past seven days') Internet users – whomever they may be – is not growing at anywhere near the same pace as frequent ('yesterday') Internet users. A possible explanation could be that the Internet does not lend itself to sporadic use as much as it does frequent use.

Internet use in the 'past four weeks', for instance, does not suggest it has been meaningfully incorporated into someone's life. If someone sends an e-mail, for example, it is reasonable to assume they would access the Internet later the same day or the following day to check for a response. If someone wants to look up a fact, or find the address of an office, they may check online for this information but have no further motivation to do so again for another four weeks or more. Thus these statistics seem to suggest an "all or nothing scenario", which implies that unless Internet access can be performed frequently, it does not seem to be as popular among the population as a whole. While this can be interpreted on the one hand as a sign that the digital divide is disappearing, it also suggests that only those who can access it frequently are likely to continue accessing it at all. This suggests the influence of offline factors such as motivation, education and physical access, which make infrequent Internet access unsustainable in the long run. Considering that Internet access is still fairly new in South Africa, and as it has already been demonstrated that it is enjoyed by a minority of South Africans, it could also be that the growth seen only in frequent Internet access could be caused by early adopters of the Internet who were always going to be able to access the Internet frequently because of their household earnings or education levels. Thus we could also be seeing a false impression of growth in Internet access being homogenous across the population when in reality it could in fact be limited to only certain, more affluent groups of people.

What can be conclusively demonstrated by both Figure 4 and 5 is that the gap between those accessing the Internet and those not accessing the Internet increased between 2002 and 2008. In 2002, the distribution of infrequent, moderate and frequent Internet users was far more even than in 2008. For example, in 2006, around 800 000 more people had accessed the Internet 'yesterday', according to SAARF, than had accessed the Internet in the 'past four weeks'. By 2007, that figure had risen to over 1 000 000, and by 2008 that figure was close to 1 200 000. In contrast, in 2006 some 300 000 more people had access the Internet in the 'past seven days' than had accessed the Internet in the 'past four weeks' and by 2008 that difference was still below 400 000. Thus, in line with Bonfadelli's (2002) research model, the gaps

between those practising infrequent, moderate and frequent Internet use in South Africa seem to be increasing, as is the gap between those practising low and high Internet use. While it could be argued this is not of consequence in the bigger picture – Internet access is still increasing, and so it can be said the digital divide is disappearing – the change in distribution of Internet users, as measured by their frequency of use, suggests a new trend.

Figure 6 demonstrates how, out of every 100 Internet users in 2002, 24% of Internet users were likely to be infrequent Internet users ('past four weeks'), 33% were likely to be moderate Internet users ('past seven days') and 43% were likely to be frequent Internet users. By 2008, that distribution had changed to 15%, 27% and 57% respectively. What this means for those who had not yet accessed the Internet at all by 2008 is that the "typical" Internet user is far more likely to be accessing the Internet frequently than in 2002, and thus the gap between Internet users and non-users as measured by frequency of Internet user's access is increasing. Put another way, non Internet users need to access the Internet far more frequently in 2008 than in 2002 in order for them to become a "typical" Internet user in South Africa. The required change in behaviour – from non-user to frequent user – is far greater than in 2002.

There is proof that this identified shift in the behaviour of Internet users in South Africa to more frequent access is being experienced and taken notice of in South Africa. In December 2005, a World Wide Worx report stated that:

> Despite great expectations, growth in Internet access among the South African public has slowed to a crawl, with the dial-up market experiencing no growth in subscribers for the first time since the industry was launched in 1993...While the arrival of broadband or high-speed Internet access has transformed the Internet access landscape in terms of technology choice, its impact has been felt far more strongly in existing users migrating from dial-up usage than in new users coming on line.

(2005b, online)

By 2007, further World Wide Worx research revealed that this trend had not yet abated. World Wide Worx MD, Arthur Goldstuck, notes

> The harsh reality is that broadband has not yet made a major impact on overall connectivity numbers, even while dramatically increasing the usage of those who are already connected. The majority of broadband users are simply migrating up the connectivity food chain, from dial-up to broadband. So, while the haves get more, the have-nots remain locked out.
>
> (2007, online)

Goldstuck attributes the high cost of landline Internet connectivity and the monopolistic environment brought on by the state-owned Telkom. Goldstuck also notes that up to a third of broadband subscribers also have access to 'another form of connectivity', suggesting that the 'haves' continue to increase and improve their Internet activities.

But what does dial-up and broadband Internet use have to do with frequency of Internet use in the context of South Africa? Given that access 'yesterday', 'in the past seven days' and 'in the past four weeks' have been considered as high, moderate and low frequency of use and that studies show (Assael, 2005; Chadhuri et al, 2005; Firth and Mellor, 2005; Fox et al, 2005; Horrigan et al, 2006a and Papacharissi and Zaks, 2006) that frequency and particulars of Internet use correlate directly to the kind of Internet access available, it would appear the re-representation of SAARF statistics by this thesis support these claims. While the overall increase in users who had accessed the Internet 'yesterday' cannot be attributed to broadband adoption alone, there is evidence that more change is occurring within the group of South African Internet users as a whole than there is between Internet users and non-users.

It is thusfar inconclusive as to whether the persistence and growth model or the emerging digital differentiation model are more appropriate models for explaining trends in South African Internet access than the disappearing digital divide model. It has been demonstrated that the disappearing digital divide model can apply however the relatively low numbers of Internet users in South Africa as a whole, combined with the time it may take for these numbers to increase, render this model insufficient. An interrogation into SAARF Internet access figures – which has not been done before in academic research – reveals a far more nuanced set of trends than has hitherto been discussed. A seemingly homogenous set of Internet users have been shown to be affected by a far more complex and nuanced set of factors. This investigation can not yet shed light on what these factors may be, however it has been demonstrated that a similar, corroborating trend has been identified in the form of broadband adoption in South Africa. Despite the disappearing digital divide model shown to be inadequate, it is impossible to test the persistence and growth model or the emerging digital differentiation model without more information on who South African Internet users are and what they are doing online.

3.3 The digital divide among South Africans

To further test the remaining two models more information is needed on who is accessing the Internet at any given time. This is because both the persistence and growth model and the emerging digital differentiation model suggest that demographical factors such as age, race, level of education etc may determine whether or not a person can be found online. The persistence and growth model suggests offline inequalities are mirrored and exacerbated among people online, while the emerging digital differentiation model suggests that because the Internet is a new medium and brings with it new challenges, the demographics of the people we find online will differ from those that the persistence and growth model suggests. To investigate these two models, it will be necessary to further segment people who reported accessing the Internet to SAARF according to measures of socio-economic

wealth in the offline world. As a result of e-mail correspondence from SAARF, information on the Living Standards Measure (LSM) of Internet users has been gathered. Information on the penetration of Internet access (per frequency of access) and the percentage of each LSM (per frequency of Internet access) from 2002 – 2007 was made available via e-mail correspondence. To test whether the persistence and growth model is a more appropriate model to explain the digital divide in South Africa, this thesis believes trends in offline inequalities must be found or mirrored in the online world. If inequalities in frequency of Internet access directly correlate to inequalities in other factors such as income or education then the persistence and growth model will be shown to a more appropriate model for understanding the digital divide in South Africa. If Internet access within different LSM groups do not directly correlate with each other, and there are unexpected signs of higher Internet access penetration among lower LSMs, there may be evidence of an emerging digital differentiation occurring.

According to SAARF.co.za:

> The SAARF LSM (Living Standards Measure) has become the most widely used marketing research tool in Southern Africa. It divides the population into 10 LSM groups, 10 (highest) to 1 (lowest)...The SAARF LSM is a unique means of segmenting the South African market. It cuts across race and other outmoded techniques of categorising people, and instead groups people according to their living standards using criteria such as degree of urbanisation and ownership of cars and major appliances.
>
> (2008, online)

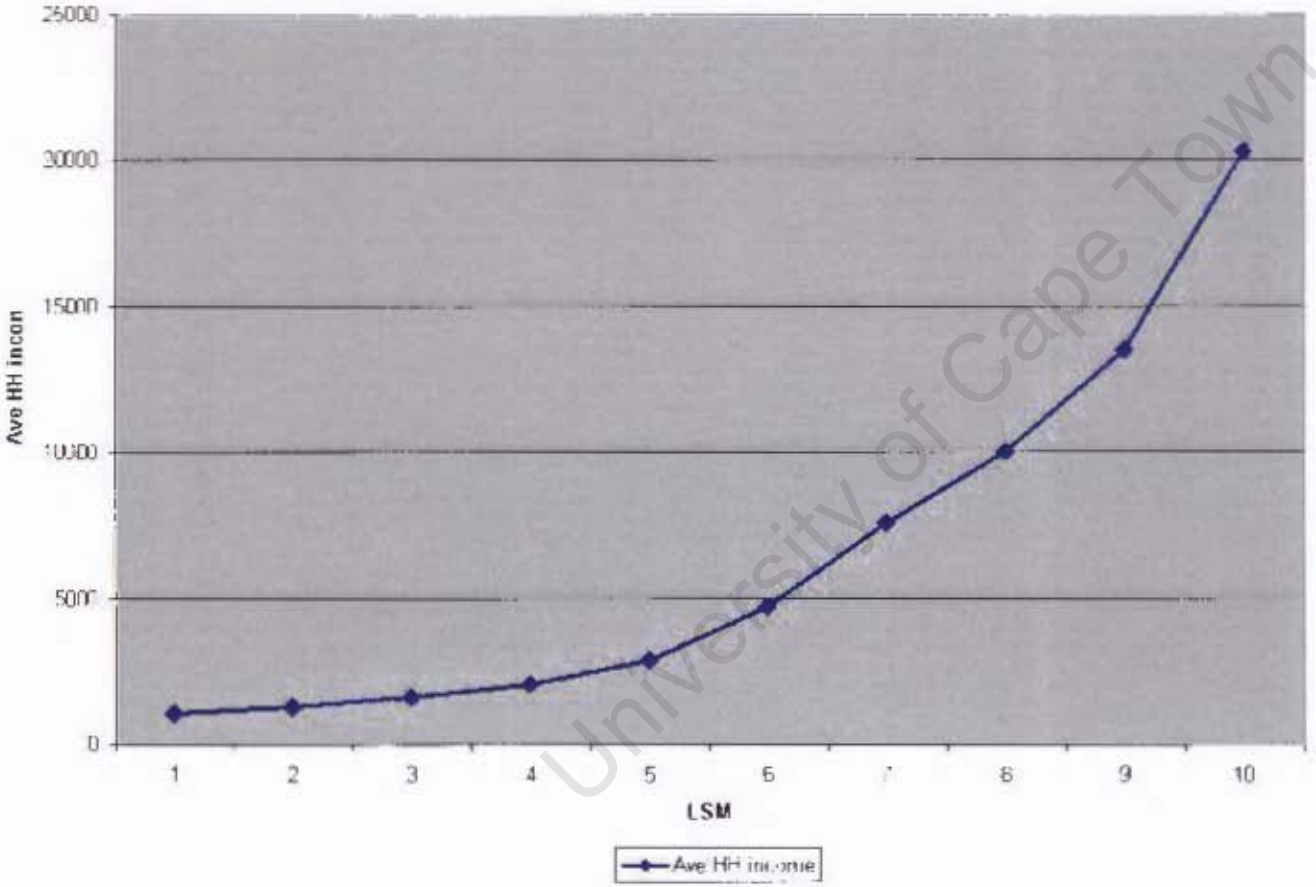
The measures used to classify the population as a whole (and thus Internet users) into LSMs by SAARF are the presence of the following in the household:

1. Hot running water	16. Have a deep freeze
2. Fridge/freezer	17. Water in home or on stand
3. Microwave oven	18. Have MNet and/or DStv
4. Flush toilet in house or on plot	19. Have a dishwasher
5. VCR in household	20. Metropolitan dweller
6. Vacuum cleaner/floor polisher	21. Have a sewing machine
7. Have a washing machine	22. DVD player
8. Have a computer at home	23. House/cluster/ town house
9. Have an electric stove	24. 1/more motor vehicles
10. Have TV set(s)	25. No domestic worker
11. Have a tumble dryer	26. No cell phone in household
12. Have a Telkom telephone	27. 1 Cell phone in household
13. Hi-fi or music centre	28. None or only one radio
14. Built-in kitchen sink	29. Living in a non-urban area
15. Home security service	

Each statement was assigned a value, weighted and then used to calculate respondents LSMs. It is important to note that one factor measures whether or not a person has a computer at home but this does not necessarily speak to whether or not a person has Internet access; a person with a home computer cannot be said to have access to the Internet by default, nor can a person without a home computer be said to not have access to the Internet by default either, as they may be accessing the Internet from a friend's house, an Internet café or work. Thus Internet access is an independent variable that can be measured across LSM groupings. A SAARF (2008c) presentation adds that LSM segmentation "is based on wealth, access to services and durables, and geographic indicators" (online). While income is not used as a means of classifying people into LSM groupings, there is a direct correlation between the two *(Figure 7)*. This thesis will thus use these SAARF LSM groupings (SAARF, 2008b), gathered at the same time as statistics on Internet access were collected, to interrogate how Internet access in South Africa varies according to living standards. It also is necessary to demonstrate *(Figure 8)* what percentage of the population each LSM

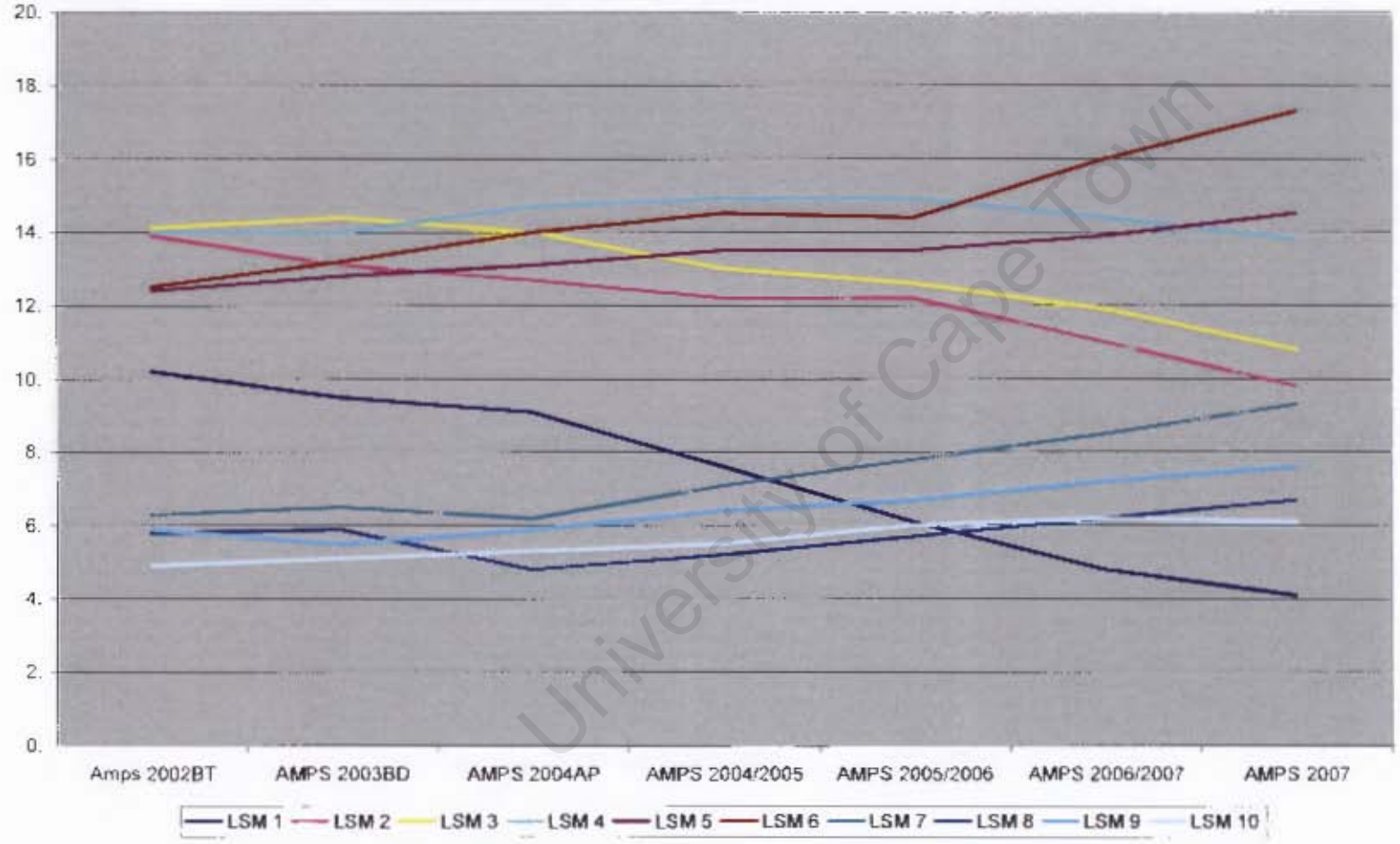
represents, as the numbers of people in each LSM fluctuates over time, which is due to improving living conditions in South Africa over the six-year period. The percentage of the population comprised by lower LSMs (LSM 1 -5) made up almost two-thirds of the adult population in 2002 and just over half of the adult population by 2008, which suggests an increase in the standard of living for many of the poorer South Africans over the sampled time period. Changes in Internet access within each LSM must therefore be considered within these fluctuations of LSM percentages as a whole over the same time period.

Figure 7: Household income by LSM



(SAARF, 2008)

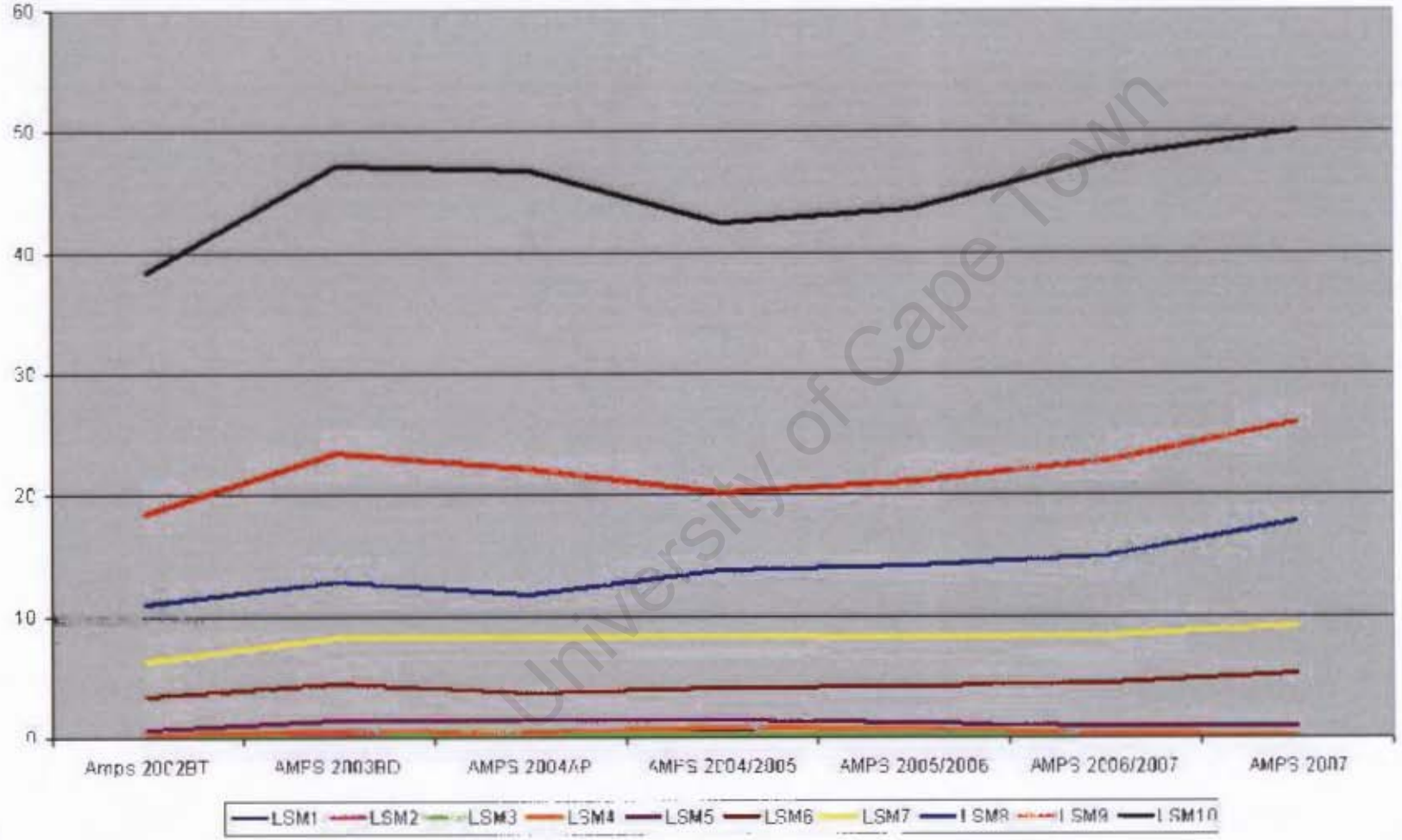
Figure 8: Percentage of population per LSM



(SAARF, 2008)

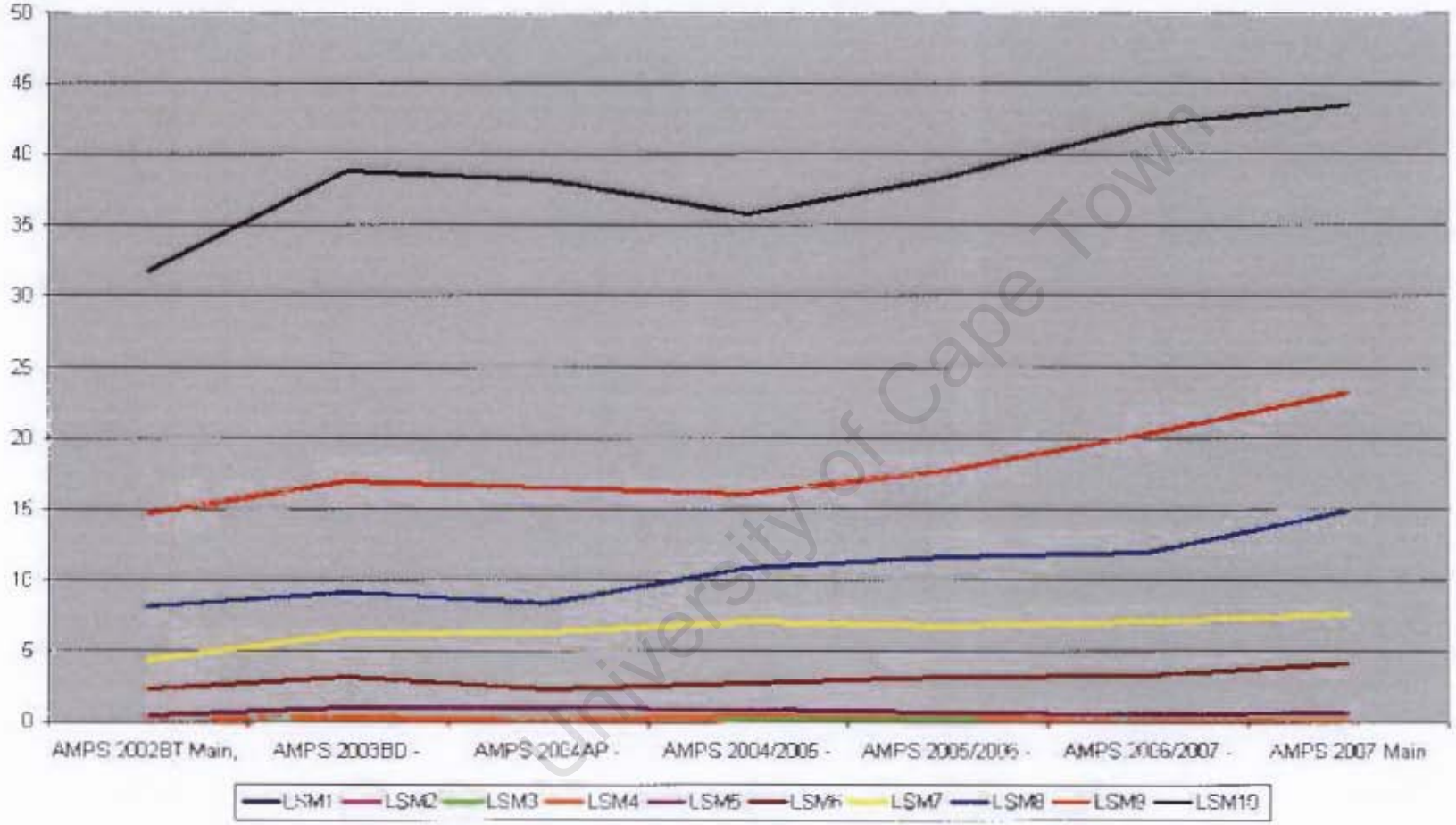
Statistics published by SAARF demonstrate what percentage of each LSM reported accessing the Internet 'yesterday', in the 'past seven days' and in the 'past four weeks', as well as the distribution of each LSM within the total number of Internet users of each frequency. For the aim of this thesis, the percentage of Internet users among each LSM will be interrogated, as this will more clearly demonstrate how Internet access within each LSM has changed over time. Graphical representations of these SAARF statistics are shown in the graphs that follow *(Figure 9, Figure 10 and Figure 11)*.

Figure 9: Internet penetration as a % of Internet users 'past four weeks' among LSM 1-10 from 2002 to 2007



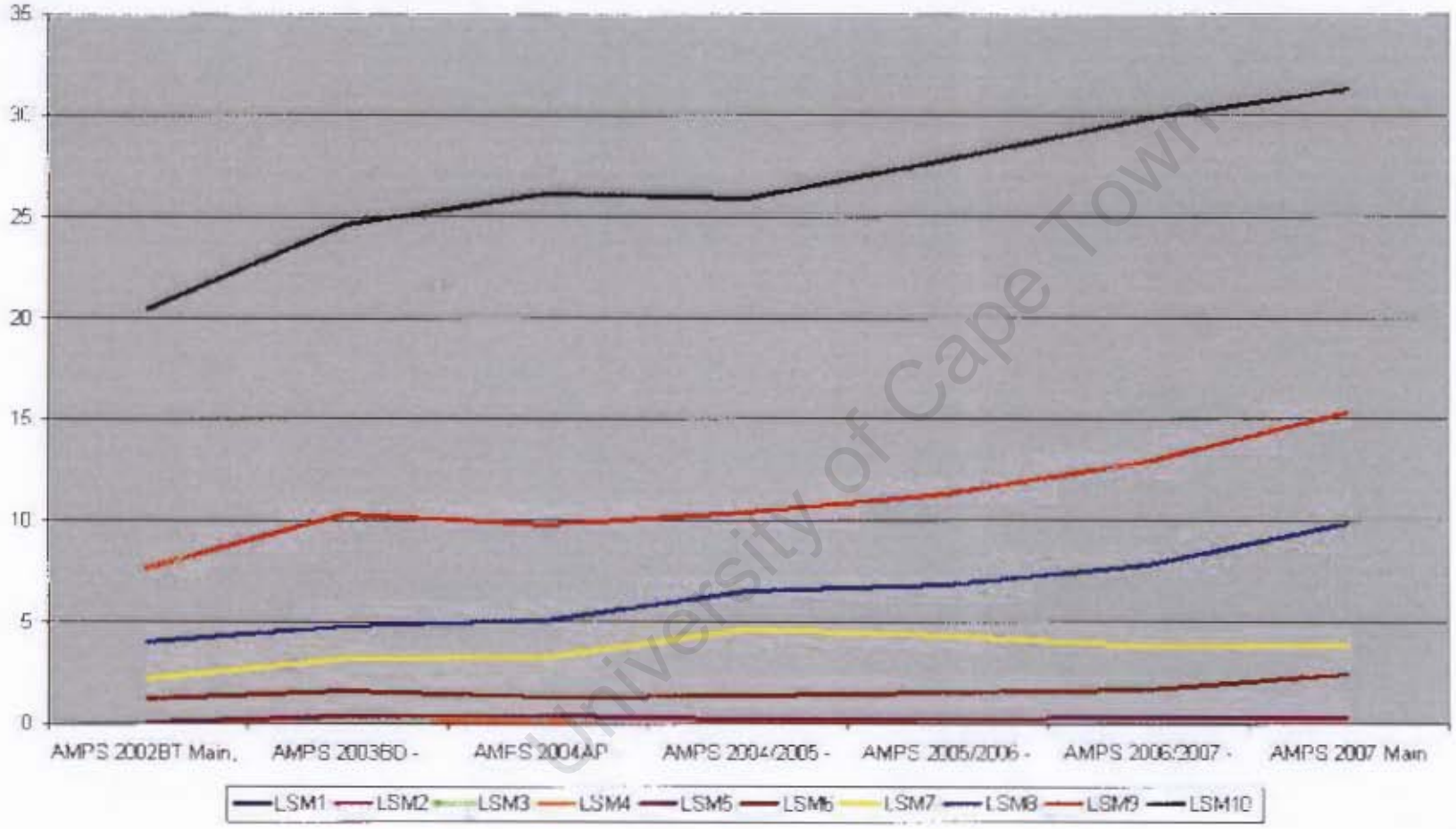
(SAARF, 2008)

Figure 10: Internet penetration as a % of Internet users 'past seven days' among LSM 1-10 from 2002 to 2007



(SAARF, 2008)

Figure 11: Internet penetration as a % of Internet users 'yesterday' among LSM 1-10 from 2002 to 2007



(SAARF, 2007)

These graphs demonstrate what percentage of each LSM had accessed the Internet during the sample period, and by what frequency. All three graphs demonstrate the considerable and sustained gap in Internet penetration between LSM 10 and all other LSMs. Even when just considering LSM 10 and 9, there is a sustained difference between levels of Internet access penetration over time. And while Internet access levels may have doubled over the time period among LSMs 8 and 9 – as opposed to LSM 10 where it has increased by between 30% and 50% – the levels of Internet access per LSM speak to just how low Internet access is in South Africa as a whole. Even in LSM 10, where Internet penetration is at its highest levels by percentage by 2007 in the 'past four week' category (and where LSM 10 makes up the second-smallest percentage of the population), Internet access in the 'past four weeks' was only reported by 50% of people. This, of course, does not take into account the cumulative effect the three questions have on the SAARF figures. On the other end of the LSM scale, there is even more cause for concern. Although Internet access among lower LSMs was expected to be low, in many instances no Internet access was reported at all by respondents. And while SAARF warns that the data among LSM 5 and below should be used with extreme caution, the absence of data at the very least suggests a significant digital divide among the adult South African population, which is in keeping with the persistence and growth model. These graphs demonstrate how the group of South African Internet users does not display the same demographical breakdown as the population as a whole. Thus despite Internet access over time increasing in the population (which supports the disappearing digital divide theory), there is also clear and compelling evidence that at least part of the persistence and growth model (i.e. persistence) most appropriately describes the variation in Internet access growth within different segments of the population. The problematic aspect of digital divide theory being ill-defined and inadequate has thus already been demonstrated before any further investigation has been done: signs of both a slowly disappearing digital divide, as well as a persisting inequality of Internet access among different socio-economic segments of the population, speak to the inadequacies of these two models in describing what is happening in a developing country such as South Africa.

Further interrogation of these figures – which has not been undertaken by SAARF or any academic research in South Africa as yet – may help to better explain the trends in evidence. This thesis has already demonstrated how the cumulative effect inherent in SAARF statistics in general masks a far more complex trend of Internet access in South Africa. In a previous section, this thesis demonstrated how infrequent and moderate Internet access was not nearly as commonplace within the South African population as frequent Internet access, which suggests an all-or-nothing approach to Internet access over time. These statistics demonstrated how, when the cumulative effect was removed, the total population of Internet users in South Africa was greatly increasing its Internet access over time, which most probably widened the skills gap between Internet users and non-users, thereby making it far more difficult for non-users to adopt the behaviour of the "average Internet user" by 2008. With the additional knowledge of which LSM each Internet user forms part, removing the cumulative effect of these statistics becomes a complex and lengthy task. However, once this has been done, it is expected there will be far more compelling signs of one of the three models still evaluated here. There may be signs that suggest less frequent Internet access among lower LSMs is more prevalent, while more frequent Internet access among higher LSMs is prevalent. This would lend credence to the hypothesis that there is a gradual adoption of Internet access over time, demonstrated by a correlation between LSMs and frequency of access. If this is not clearly demonstrated, and it is shown that Internet access within each LSM more closely demonstrates the trend evident in the population as a whole, there will be more evidence to support that new users in recent years have leapfrogged infrequent adoption of the Internet and moved directly to frequent Internet access. This may support an emerging digital differentiation model, at least in part, because socio-economic factors that determine which LSM an Internet users is, do not directly correlate with different levels of Internet access. It may also suggest an entirely new trend, which is not adequately demonstrated or defined in digital divide theory which has emerged from developed countries over the years.

To remove the cumulative effect inherent in the SAARF statistics, the same subtractions within each band ('yesterday', 'past seven days' and 'past four weeks') must be undertaken. Crucially, as SAARF has cautioned against the accuracy of its statistics from LSM 5 and below due to the considerably small number of respondents to its surveys through the five-year period, this thesis will work only with statistics for LSM 6 and above. According to SAARF, most of the percentages of Internet access among LSMs 5 and below were based on data considered "highly unstable" (SAARF, 2008). In some instances in LSMs 1 and 2, no respondents from the sample pool were found to have accessed the Internet even in the 'past four weeks'. In many instances of Internet access in the 'past seven days' and 'Yesterday', no respondents were found among even LSM 4. Thus even before an analysis of Internet access frequency by LSM groupings, it is evident that low LSMs displayed little to no Internet use during the period of analysis. This is of major concern in itself because on average 52.88% of all adult South Africans formed part of LSM 1-5 during this time period, yet Internet penetration among these LSMs could not even be adequately sampled due to the low number of respondents. While this reduces the ability of this thesis to assess what trends may be occurring within the lower LSMs, it would be meaningless to assess unreliable data for anything more than the most basic of features. As a result, for the purposes of this section, only LSM 6-10 will be used for analysis. The tables that follow *(Tables 3, 4, 5, 6 and 7)* undertake the same method as conducted earlier in this thesis for LSM 6, 7, 8, 9 and 10, and remove the cumulative effect of the 'past 7 day' and 'past 4 week' questions. This is done using real values for each measure to remove the effect of changes in the population size of each LSM over time. The figures are then displayed graphically for ease of interpretation *(Figure 12, 13, 14, 15 and 16)*.

Table 3: Removing the cumulative effect LSM 6

	2002	2003	2004	2004/ 2005	2005/ 2006	2006/ 2007	2007
P4W	127	172	159	178	188	221	281
P4W	**41**	**49**	**62**	**56**	**49**	**59**	**61**
P7D	86	123	97	122	139	162	220
P7D	**43**	**61**	**44**	**60**	**71**	**79**	**89**
Y	**43**	**62**	**53**	**62**	**68**	**83**	**131**

Table 4: Removing the cumulative effect LSM 7

	2002	2003	2004	2004/ 2005	2005/ 2006	2006/ 2007	2007
P4W	117	163	154	183	198	224	265
P4W	**36**	**42**	**36**	**32**	**37**	**39**	**47**
P7D	81	121	118	151	161	185	218
P7D	**40**	**59**	**56**	**52**	**57**	**85**	**105**
Y	**41**	**62**	**62**	**99**	**104**	**100**	**113**

Table 5: Removing the cumulative effect LSM 8

	2002	2003	2004	2004/ 2005	2005/ 2006	2006/ 2007	2007
P4W	190	224	172	223	248	287	373
P4W	**50**	**65**	**50**	**47**	**45**	**57**	**60**
P7D	71	75	47	71	83	80	105
P7D	**40**	**59**	**56**	**52**	**57**	**85**	**105**
Y	**69**	**84**	**75**	**105**	**120**	**150**	**208**

*Figures depicted in bold represent each new measure of frequency of access.

Table 6: Removing the cumulative effect LSM 9

	2002	2003	2004	2004/ 2005	2005/ 2006	2006/ 2007	2007
P4W	325	381	398	397	440	507	611
P4W	**69**	**106**	**101**	**83**	**72**	**54**	**63**
P7D	256	275	297	314	368	453	548
P7D	**121**	**107**	**121**	**108**	**132**	**166**	**188**
Y	**135**	**168**	**176**	**206**	**236**	**287**	**360**

Table 7: Removing the cumulative effect LSM 10

	2002	2003	2004	2004/ 2005	2005/ 2006	2006/ 2007	2007
P4W	556	721	760	718	810	919	950
P4W	**97**	**127**	**141**	**111**	**96**	**109**	**124**
P7D	459	594	619	607	714	810	826
P7D	**165**	**219**	**195**	**168**	**198**	**237**	**232**
Y	**294**	**375**	**424**	**439**	**516**	**573**	**594**

Figure 12: Internet access frequency by LSM 6

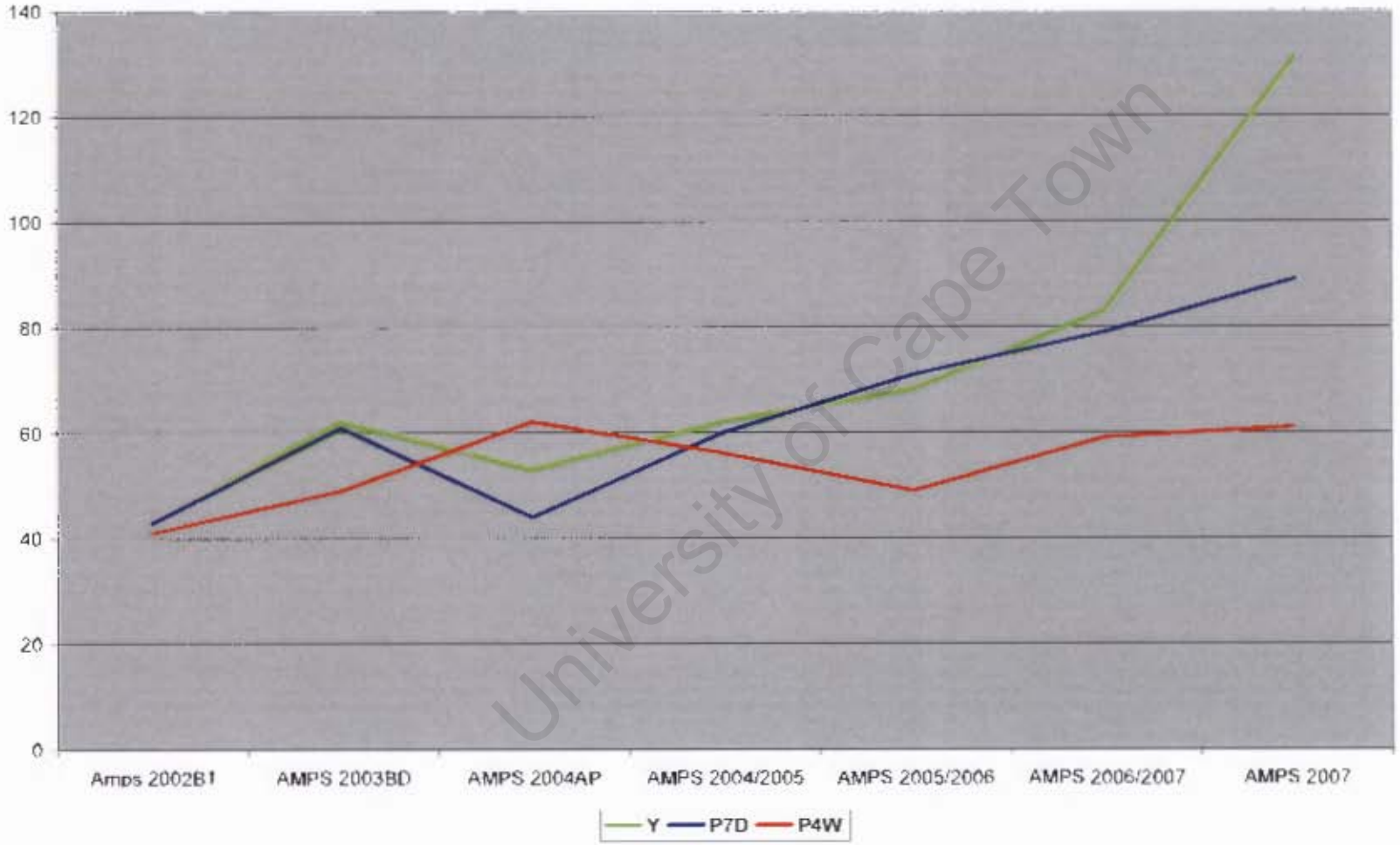


Figure 15: Internet access frequency by LSM 9

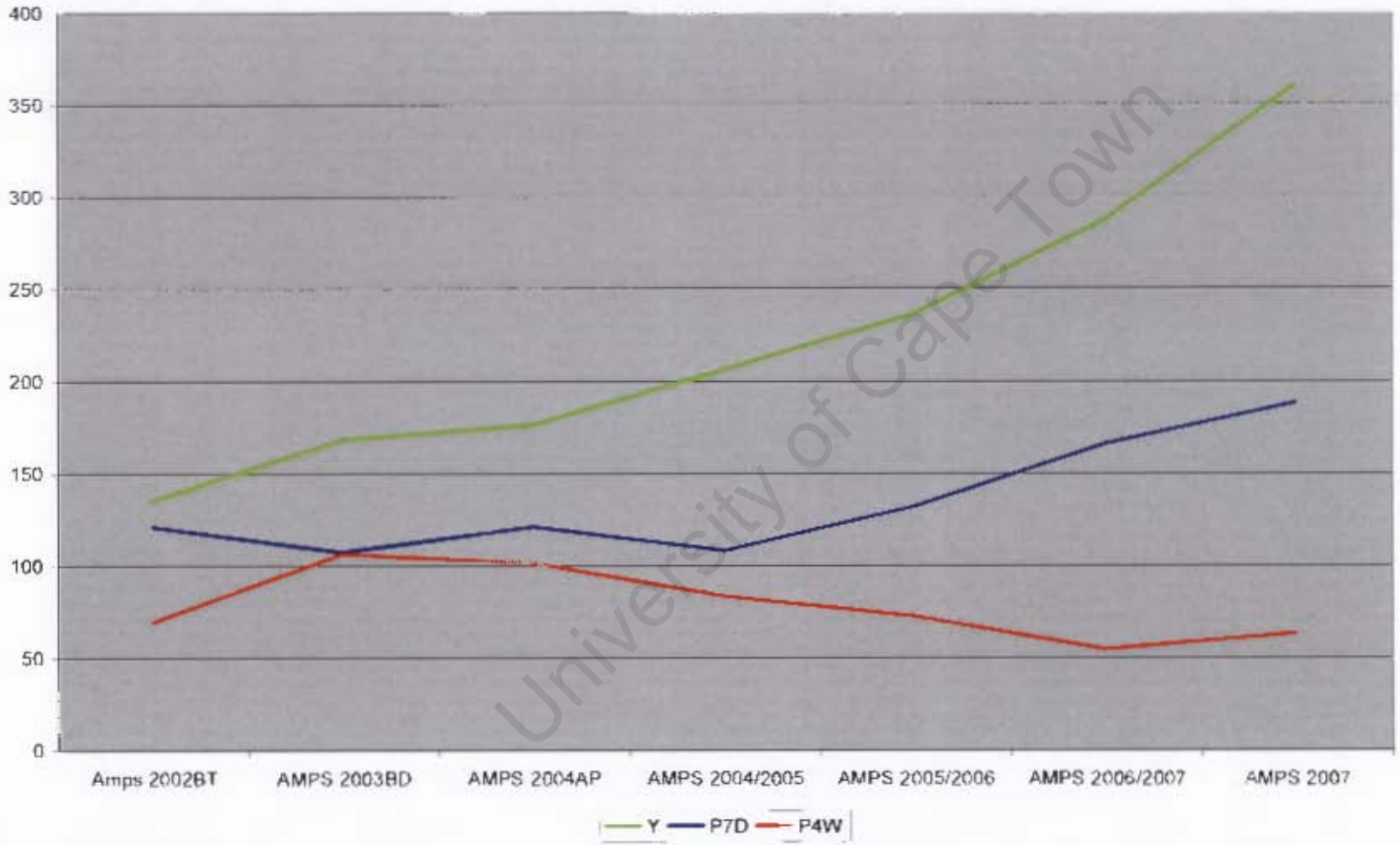
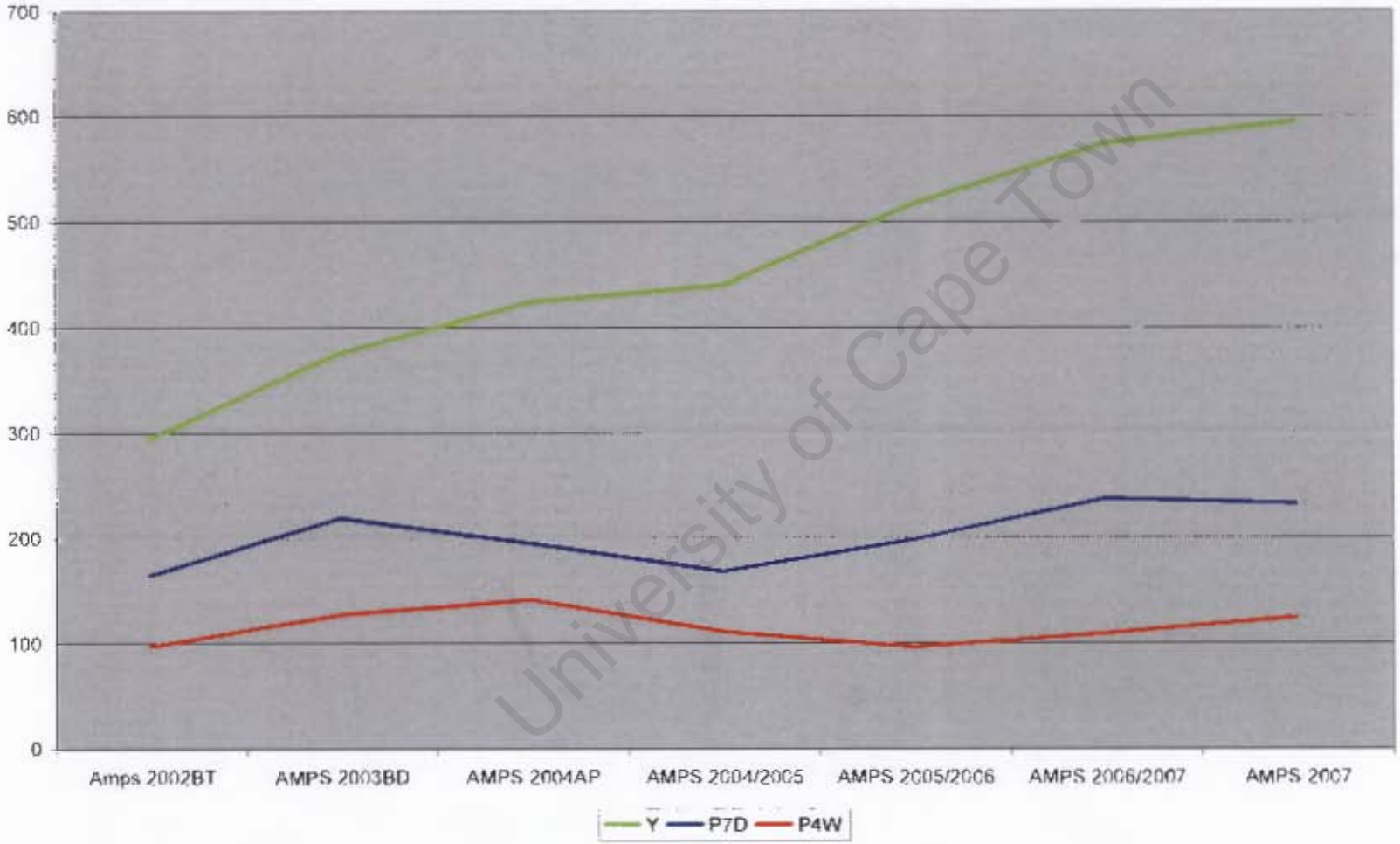


Figure 16: Internet access frequency by LSM 10



These graphs demonstrate for the first time frequency of Internet access for each LSM over time. Of importance is the scale of each graph – despite lower LSMs representing a greater number of people, Internet access penetration is so low in these LSMs that the real numbers of Internet users decrease dramatically in lower LSMs. Only in LSM 6 and briefly in LSM 8 do we see instances where there were more people in that LSM accessing the Internet 'infrequently' than 'moderately'. With each rise to a higher LSM, there is evidence of frequent Internet access being far more popular, and increasing at a far faster rate over time than less frequent Internet access. There is also evidence to suggest that a sharp increase in the number of Internet users accessing the Internet 'yesterday' happened earlier in the sample period in each LSM. In LSM 6, a spike is seen only between 2006 and 2007, In LSM 7, 8 and 9, that spike appears in 2004. In LSM 10 there is consistent growth in this group from the beginning of the sample period. There is evidence of a decrease in the number of low frequency Internet users in the middle of the sample period, but for LSM 8, 9 and 10 this figure returns to the same value it was in 2002. Only in LSM 6 and 7 is there evidence that this number is growing in size as well. This suggests a far more complex set of circumstances than either the disappearing digital divide or persistence and growth model suggests. Despite the absence of LSMs 1-5, LSM 6-10 demonstrates several complicated trends. First, among higher LSMs there is evidence of a consistent percentage over time only accessing the Internet moderately or infrequently. These graphs do not speak to the cause of this, but it may be that higher LSMs are on average older than lower LSMs, and thus there will be a consistent segment of these LSMs that do not have a need or desire for more frequent Internet access. On the whole, higher LSMs display a marked growth in the number of people undertaking more frequent Internet access. The size of these groups of frequent users of the Internet seem to indicate these LSMs account most for the dramatic increase in frequent Internet use in the population as a whole. The second clear trend is that, among lower LSMs, there are signs that less frequent Internet access is more prevalent than in higher LSMs. However, by 2008, 'frequent' Internet access is always the most prevalent across all LSMs, despite the gaps between these frequencies of access being smaller, as well as the population

size of Internet users in these LSMs as a whole. In LSM 10, we may also be seeing the first signs of a consistent leveling off in Internet access, which suggests there may be a saturation effect occurring. This also indicates that, for the first time, motivational factors rather than physical access may be affecting growth in Internet access in this group. If this is true, this saturation effect has occurred far earlier than one may have expected – as earlier graphs show only a 30% frequent Internet access penetration rate among this LSM.

While the time period of analysis here makes it dangerous to draw definite conclusions, this thesis believes these graphs demonstrate aspects of all three digital divide models. Of course, the scale of each of these graphs cannot be ignored; on the whole, there are significantly fewer people in lower LSMs accessing the Internet (by any measure of frequency) than there are in higher LSMs. This must be of consequence, and an investigation into what Internet users are doing online may help shed light on what these consequences are. Despite the relatively small scale of Internet use in the lower LSMs, these graphs do still suggest a far more complex set of trends in Internet access in South Africa than access figures in the population as a whole can show. Firstly, there is evidence of the digital divide is disappearing (albeit on a small scale). All frequencies of Internet access, among LSM 6-10 show an increase. Secondly, there is also evidence of socio-economic factors (which determine LSMs) affecting Internet access penetration in each LSM. This suggests evidence of the 'persistence' part of the persistence and growth model. But there is also a third, more complex trend emerging; as Internet access 'yesterday' does appear to be increasing in each LSM (albeit at different rates and increasing considerably later in the sample period with each decrease in LSM), the first signs of an emerging digital differentiation model may finally be apparent. This conclusion is drawn because frequent Internet access does still appear to be the most dominant across all LSMs, when compared to less frequent levels of Internet access. This suggests that it may not only be socio-economic factors (which determine an individual's LSM grouping) that are affecting the uptake of frequent Internet access in the population. These graphs in fact suggest that lower levels of household

income, or lower levels of education, or even the presence of a personal computer in the home, do not directly correlate with Internet access. Of course generalisations are dangerous – any number of these factors in any combination could result in an individual's LSM grouping – however it is clear once again that there is a far more complex set of circumstances affecting Internet access in the South African population than one would expect. It may even be suggested that South African Internet users are in some ways bucking expectations laid out by digital divide theory which has been constructed based on studies in the developed world.

Internet access penetration among LSM 6-10 is clearly increasing at a different level per LSM. This thesis has already shown that, in this bracket, higher LSMs comprise a smaller percentage of the total population than lower LSMs. What the above graphs seem to suggest is that higher LSMs – who are in the minority – display the majority of growth, which clearly indicates a disparity of growth and refutes homogenous increase in Internet access across the South African population. Drawing again on methods of calculations used by Bonfadelli (2002) to demonstrate gaps among Internet users over time, gaps can be demonstrated both between LSMs per frequency of access and within each LSM per frequency of access. Again, the increasing scale of these gaps must be borne in mind.

Figure 17: Gaps (in '000s) between LSMs 10-6 among Internet access in the 'past four weeks'

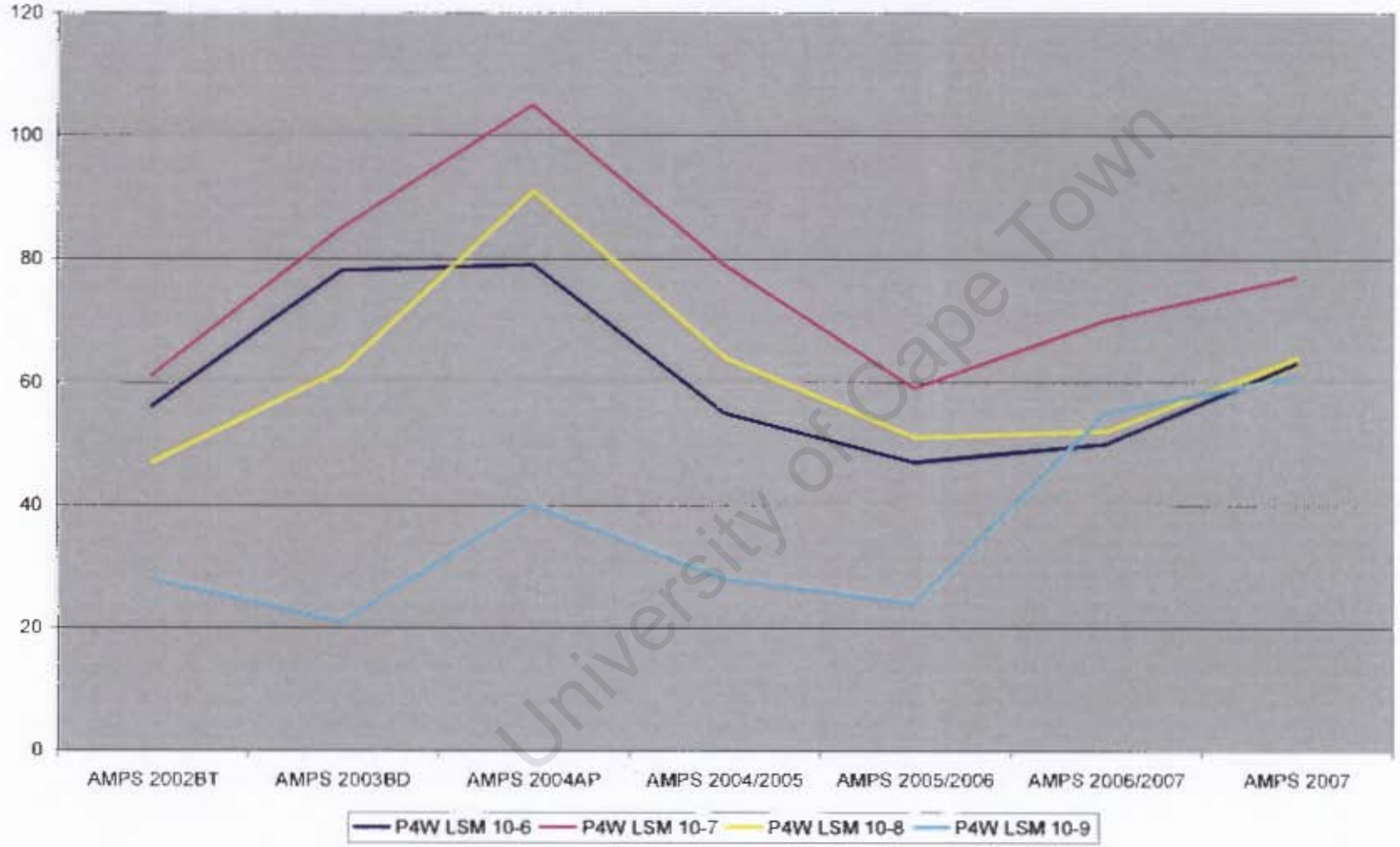


Figure 18: Gaps (in '000s) between LSMs 10-6 among Internet access in the 'past seven days'

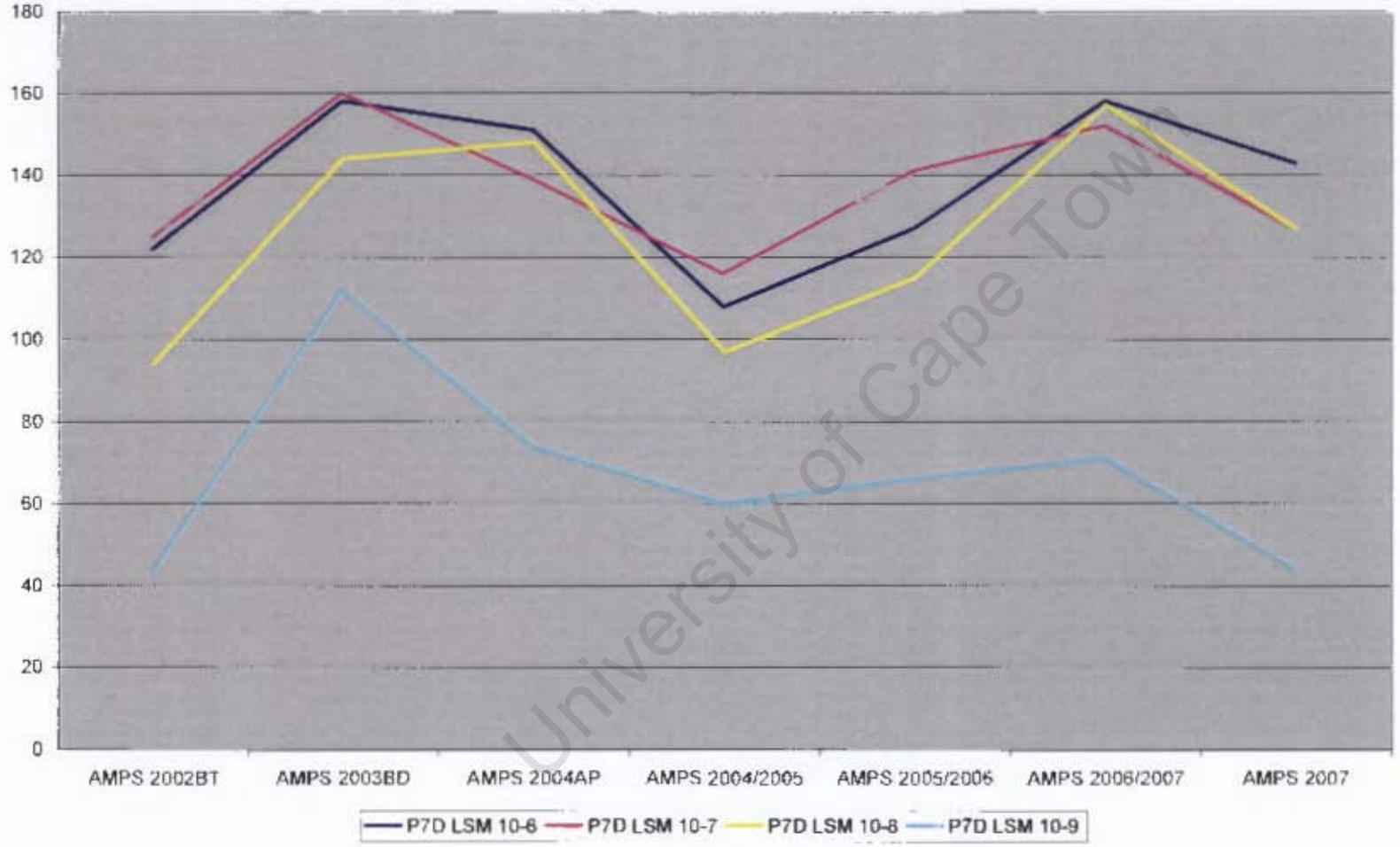
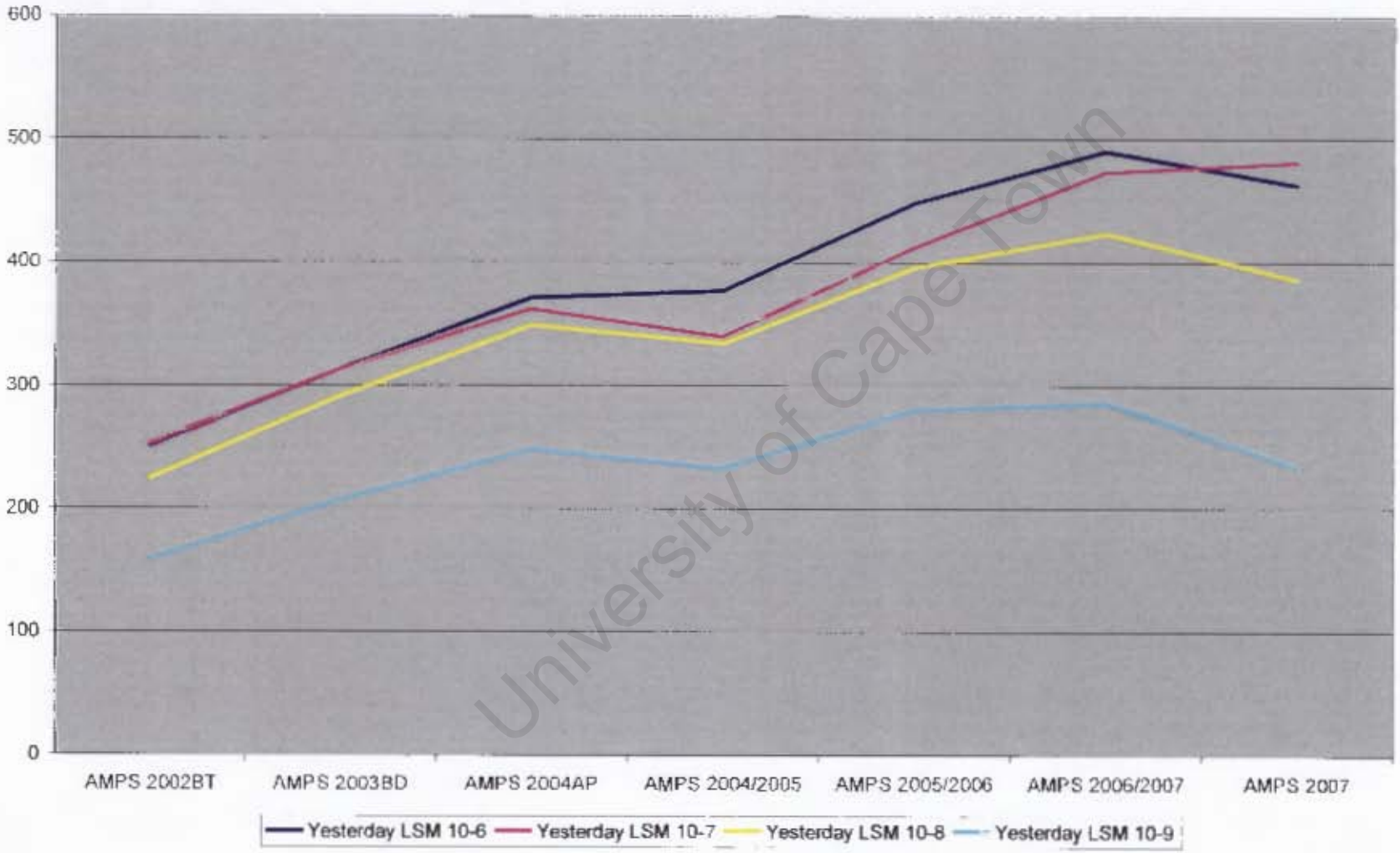


Figure 19: Gaps (in '000s) between LSMs 10-6 among Internet access 'yesterday'



These graphs *(Figures 17, 18 and 19)* display the differences – in hundreds of thousands of South Africans – between LSM10 and each lower LSM according to each measure of frequency of access. The graphs depict greater fluctuations between these LSMs among infrequent and moderate Internet users. Among frequent Internet users, we see a general increase in the size of the gaps over the majority of the time period, with a decrease beginning only in 2006/2007. This measure of the most frequent type of access among Internet users in South Africa is perhaps the most important one to bear in mind, as the measures of more infrequent use are perhaps arbitrary when trying to analyse Internet access as a measure of frequent Internet use. Put another way, without conclusions into why people are using the Internet infrequently, and knowledge as to whether they do steadily increase their use over time or fluctuate between non, low and moderate use of the Internet, these groups could potentially complicate investigations into Internet access in South Africa in future years. The graph depicting gaps among LSMs who accessed the Internet 'yesterday' is perhaps the most appropriate to watch; here we see gaps between LSM 10 and 6, 7 and 8 almost doubling over the time period analysed. And while these graphs depict Internet access at an early stage in South Africa as a whole, the discovery that these gaps appear to persist among the most frequent Internet users, and have only begun to decrease in recent years (and this could be a once-off drop in these gaps), tends to support a persistence and growth model, particularly in early stages of Internet adoption in South Africa. However, gaps among Internet users per LSM, as measured by frequency of access also demonstrate how the digital divide can persist across and within segments of society. This suggests the persistence and growth model is not comprehensive enough to explain what trends are evident among South African Internet users. The following table *(Table 8)* displays Internet users per LSM by frequency of access.

Table 8: Distribution of frequency of Internet access by LSM over time

		AMPS 2002BT	AMPS 2003BD	AMPS 2004AP	AMPS 2004/2005	AMPS 2005/2006	AMPS 2006/2007	AMPS 2007
LSM10	**Y**	52.88%	52.01%	55.79%	61.14%	63.70%	62.35%	62.53%
	P7D	29.68%	30.37%	25.66%	23.40%	24.44%	25.79%	24.42%
	P4W	17.45%	17.61%	18.55%	15.46%	11.85%	11.86%	13.05%
LSM 9	**Y**	41.54%	44.09%	44.22%	51.89%	53.64%	56.61%	58.92%
	P7D	37.23%	28.08%	30.40%	27.20%	30.00%	32.74%	30.77%
	P4W	21.23%	27.82%	25.38%	20.91%	16.36%	10.65%	10.31%
LSM 8	**Y**	36.32%	37.50%	43.60%	47.09%	48.39%	52.26%	55.76%
	P7D	37.37%	33.48%	27.33%	31.84%	33.47%	27.87%	28.15%
	P4W	26.32%	29.02%	29.07%	21.08%	18.15%	19.86%	16.09%
LSM 7	**Y**	35.04%	38.04%	40.26%	54.10%	52.53%	44.64%	42.64%
	P7D	34.19%	36.20%	36.36%	28.42%	28.79%	37.95%	39.62%
	P4W	30.77%	25.77%	23.38%	17.49%	18.69%	17.41%	17.74%
LSM 6	**Y**	33.86%	36.05%	33.33%	34.83%	36.17%	37.56%	46.62%
	P7D	33.86%	35.47%	27.67%	33.71%	37.77%	35.75%	31.67%
	P4W	32.28%	28.49%	38.99%	31.46%	26.06%	26.70%	21.71%

Over time, it is demonstrated that gaps between Internet users and non-users per LSM are increasing, as Internet users become more and more inclined to access the Internet frequently than infrequently. While the gaps are greater among higher LSMs, suggesting a direct relationship between the two, the trend of increasingly more frequent access of the Internet among each LSM is consistent. Still, by 2007, LSM 6 had yet to reach the same distribution of frequent, moderate and infrequent distribution of Internet users as LSM 10 had in 2002. LSM 9 had only reached a similar distribution by 2006. This suggests a lag period among each LSM in the population, where more and more time is needed for each LSM to appropriately adopt frequent access of the Internet as a dominant Internet usage behaviour.

An investigation into Internet usage by LSM and frequency of Internet usage reveals a far more complex picture than measures only of Internet access per population suggest. While it has been shown that, in general, Internet access increased slowly but steadily over a six year period, a more detailed examination of these statistics by LSMs – applying for the first time models used to interpret digital divide theory on South African Internet access statistics – suggests that this increase in Internet access within the population is not homogenous. A complex set of attributes inherent in these statistics reveal how in some cases, socio-economic factors which apply to an individual or group of individuals can determine whether or not the Internet is accessed and how frequently it is accessed. On the other hand, there is also evidence that this is not always the case; signs that a person's socio-economic conditions (in this instance, described by LSM categories) do not always determine levels of Internet access in the population. To return to the three digital divide models which this thesis has been evaluating in this section – the disappearing digital divide, the persistence and growth approach, and emerging digital differentiation – it is apparent that there are signs of all three (a slow disappearance, a sustained and proportioned correlation between LSMs and inequality in Internet access and the existence of signs of Internet access among groups where it would otherwise be unexpected). This suggests that existing digital divide theory is inadequate in describing South African Internet access figures. Whether this is because the

theory is itself inadequate, or because the South African example represents a unique set of circumstances which existing digital divide research has yet to encounter is as yet unknown. The former goes beyond the scope of this research. The latter, however, may be true when one considers further information on Internet users in South Africa. Given the unusual political past of South Africa, and the effect this has had on the socio-economic conditions of the population as a whole, there are other factors which may be affecting Internet access uptake within and between different LSMs.

3.4 Contextualising the digital divide

Growth in internet access in South Africa has been demonstrated not to be homogenous or steady but there is minimal literature available on why this is so. This thesis expects that certain characteristics unique to South Africa contribute to the complexities of the digital divide in South Africa. If the socio-economic standing of individuals does not always appear to determine whether or not they access the Internet, there are perhaps other factors which are affecting growth in Internet access in South Africa. Statistics taken from Nielsen//NetRatings on the total market aggregate of South African websites for November (randomly chosen month from 2008) suggest a combination of other factors also determine a person's likelihood to access the Internet. Surveys were done using a pop-up window which was randomly served to users of South African websites. It did not include Internet users surfing web or WAP sites on their mobile phones, but did include those accessing the Internet using cellular technology.

Nielsen//NetRatings (2008) reveal that users of South African websites who are based within South Africa, access the Internet from densely populated or urban areas. A table of Nielsen//NetRatings results from a survey for the month of November is as follows.

Table 9: Place of residence of Internet Users – November 2008

Market Aggregate	Respondents	Matched %
Total Survey Results	*20094*	*100*
Johannesburg	6280	31.25
Cape Town	3256	16.20
Pretoria	2667	13.27
Durban	1722	8.57
Other Gauteng	1261	6.28
Other Western Cape	795	3.96
Other Kwazulu-Natal	577	2.87
Mpumalanga	516	2.57
Port Elizabeth	469	2.33
North West	443	2.20
Northern Province	411	2.05
Bloemfontein	279	1.39
East London	277	1.38
Other Eastern Cape	249	1.24
Outside SA	227	1.13
Other Free State	226	1.12
Pietermaritzburg	219	1.09
Northern Cape	114	0.57

Question asked: "Where do you normally reside".

(Nielsen//NetRatings [November 2008])

If one were to separate out the most densely populated cities in South Africa (Johannesburg, Pretoria, Cape Town and Durban) from the rest of the areas listed in the survey, a graphical representation of the breakdown of Internet users by location demonstrates *(Figure 20)* just how much Internet access is located in densely populated, urban areas. Seventy-percent of all Internet users "normally resided" in one of four cities – Johannesburg, Cape Town, Pretoria or Durban – in the month of November 2008. This corresponds with findings in Gillwald (2005, 137) that show South Africans in Metropolitan areas are much more likely to have e-mail access (as well as mobile and landline phones) than people in other urban areas. Given the disparity in socio-economic conditions between rural and urban areas in South Africa, evidence of Internet access being so prevalent in urban areas and so rare in less-built up areas may not emerge in other, more developed countries. Metropolitan areas also incorporate higher density commercial and industrial areas, which suggest greater employment levels in the area. Nielsen//NetRatings reveals, from the same survey done in November 2008,

that Internet access from work is most dominant, followed by Internet access at home.

Table 10: Place of access of Internet Users – November 2008

Market Aggregate	Respondents	Matched %
Total Survey Results	20094	100
At work	11213	55.80
At home	7009	34.88
A friend or relative's house	143	0.71
At school, college or other educational establishment	727	3.62
An Internet cafe	582	2.90
Some other public location (eg library, information centre.)	100	0.50
Somewhere else	320	1.59

Question was: "Where are you currently accessing the Internet".

(Nielsen//NetRatings [November 2008])

Taken together, these statistics suggest that Internet access may better correlate with being an urban, employed South Africans than with one's LSM grouping. It is evident that the majority of Internet access occurs in urban, metropolitan areas and that more people access the Internet from work than from home. The number of people accessing the Internet from home may more closely correlate to LSMs, as having a computer at home was one of the variables used to determine a respondent's LSM, however Internet access from work does not directly relate to a respondent's LSM. Thus a secretary grouped in LSM 5 or 6 may be more likely to access the Internet (from work) in Johannesburg, than a stay-at-home mother grouped in LSM 8 or 9 in a suburb or small town.

The language barrier may also prove important in contextualizing the evidence this thesis has presented. Academic literature on the dominant languages of South African web users is scarce (Wasserman, 2002), but the Nielsen//NetRatings Market Intelligence survey from November 2008 reveals how people who speak English and Afrikaans as their "primary" language at home are the most common web-users *(Table11)*. Information from the 2001

Census (2001, online) on language distribution in the population as a whole has been included to highlight disparities in language representation online.

Table 11: "Primary" language spoken at home

Market Aggregate	Respondents	Matched %	2001 Census %
Total Survey Results	20094	100	100
English	10938	54.43	8.2
Afrikaans	4740	23.59	13.3
IsiZulu	1105	5.50	23.8
IsiXhosa	860	4.28	17.6
Setswana	717	3.57	8.2
Sepedi	582	2.90	9.4
Sesotho	491	2.44	7.9
Xitsonga	206	1.03	4.4
Tshivenda	200	1.00	2.3
SiSwati	91	0.45	2.7
IsiNdebele	82	0.41	1.6

(Nielsen//NetRatings [November 2008])

Four out of every five Internet users in November 2008 spoke English or Afrikaans as their primary home language, despite this segment making up only 21.5% of the population in 2001. Despite the major statistical difference between English and Afrikaans and the other nine languages, there are two major qualifying factors to consider when considering this statistic. As English has become the global language of commerce, and as more and more South Africans get better levels of education – specifically in and of English – it is necessary to consider that while over 54% of respondents said they spoke English at home, this does not necessarily mean it is the only language they speak at home, nor that it is their mother tongue. Put another way, that 54% of respondents indicated they spoke English at home is not an indication of the unpopularity of the other languages, or the unwillingness of many Internet users to experience the web in their mother tongue. In fact, in another light, this data proves that a significant 46% of South Africans who use the Internet do not speak English as a home language, and ultimately their languages run the risk of being wholly underrepresented on the Internet should business managers choose to use a narrow analysis of these statistics in justifying more and more English-only websites.

Language usage at home is thus also a strong factor in determining whether someone will access the Internet or not, and while it is perhaps difficult to draw clear conclusions from this information, it is clear than non-English and -Afrikaans speaking people are wholly underrepresented on the Internet. English and Afrikaans people comprised 21.3% of the population according to the 2001 Census, but in 2008 they comprised 78% of Internet users. In other words, 78.7% of the South African population contributes around 22% of Internet users. The disparity is enormous, and suggests that language – and by extension race – is also a factor in determining Internet access in South Africa. In fact, is it perhaps fair to suggest that judging by the low barrier to entry English speaking South Africans have to the rest of the mostly-English Internet at large, online media companies are perhaps missing out on an opportunity to maximise the commercial potential of non-English speaking South African web users by providing them websites that could supplement, and not even necessarily supplant, their existing online media diet. But of course, these statistics rely on a fairly obvious statistical reality that should not be overlooked when considering the particulars of the digital divide in South Africa. This is the make-up of the online haves, but for the online have-nots, language provides yet another barrier for the poorer segments of society to overcome. Faced with little to no understanding of (written) English, it is hard to imagine how people who only speak Zulu or Xhosa or Venda might be motivated, or in fact willing, to incorporate use of the Internet into their daily activities (assuming, of course, that all other socio-economic barriers to entry are already removed). The issue of language forms the point of departure for the next section of this thesis. By investigating who is participating in a community-driven section of a popular South African website (which requires written, English submissions from Internet users in the form of articles, letters and comments), it is hoped the three digital divide models can be further tested and evaluated in a South African context.

3.5 Conclusion

This section has highlighted several shortcomings of the four digital divide models when applied to South Africa. It has refuted the denial approach with evidence of a significant divide in Internet access between South Africa and other parts of the world. It has found evidence to support the disappearing digital divide, but only within the context of a small percentage of South Africans, with slow growth over a long period of time. This small growth, and persistently small number of South Africans accessing the Internet suggests that while the disappearing digital divide approach is technically sound, it simplifies and overlooks the considerable and concerning problem that the majority of South Africans will continue not to access the Internet for many years to come. It has also found evidence to support the persistence and growth model, through the removal of the cumulative effect on Internet access statistics supplied by SAARF and a consideration of the growing gap between non-users and the "average" Internet user over time. Through a similar interrogation of Internet access statistics per LSM grouping in South Africa, this thesis has also demonstrated that the persistence and growth model does not always apply, as there are signs that socio–economic measures (as indicated by LSM grouping) do not always determine Internet access habits once a certain socio–economic level is reached. While there is a far higher level of Internet access in higher LSMs (and this has increased at a much faster rate), an interrogation of SAARF statistics reveal unexpected levels of frequent Internet access among middle LSMs too. If this trend continues, it may be that lower LSMs (where data on Internet access in these groups was deemed unreliable due to so few people reporting Internet access in these LSMs) will begin to access the Internet much more in the years to come. This thesis believes this investigation into Internet access per LSM may best support an emerging digital differentiation model. Finally, factors which may contribute to some of the more unexpected findings have been proposed and discussed. While it was expected that LSM groupings may directly correlate with varying Internet access levels, this thesis has found that other, non-LSM

specific factors such as place of residence, place of work and language may be complicating a simplistic view of Internet access statistics.

From this investigation into available data on Internet access in South Africa it has thusfar been demonstrated that none of the three remaining models appropriately and comprehensively explain what is happening to the digital divide in South Africa. This may be because digital divide theory has emerged from the developed world, and does not factor in some of the more complex socio-economic factors the developing world presents. It may also be due to the fact that Internet access is relatively new in South Africa, and the sample period begins less than a decade after the Internet was first made available in the country. This could speak to some "teething problems" that may be inherent in early Internet adoption, and could explain why none of these models have been found to adequately describe what is occurring in South Africa. To further test these models, the next area inherent in their theories must be evaluated, namely online activity and behaviour. This will be done by evaluating a South African citizen journalism website, from an investigation into who is using the website and what kinds of interactions are taking place online.

Chapter 4:
News24 and MyNews24: Signs of the digital divide

This thesis has thus far shown that, based on scholarly definitions of the digital divide, a divide is evident in Internet access statistics in South Africa. It has further shown that the digital divide is slowly diminishing in broad terms, but that access is most widespread among wealthy South Africans and that the rate of uptake in Internet access among more affluent South Africans is far greater than that of the population as a whole. While uptake in Internet access seems to be increasing in general, it may take many decades before the Internet is as widespread in South Africa as it is in many other parts of the developed world. This thesis believes this will have serious consequences for South Africa as a whole and for non-Internet users in the years to come. Three digital divide models – the disappearing digital divide, the persistence and growth model and the emerging digital differentiation – have been shown to be in some instances applicable to South African Internet access, but in many other ways not complex enough to explain the trends that this thesis has identified. As yet it is unclear whether the digital divide ceases to exist once South Africans are online. What needs to be assessed is how South Africans fare once they are online. If it can be shown that once physical access to the Internet is established, Internet use is homogenous and Internet users display the same usage behaviour, then a case can be made that all that is needed is patience for the disappearing digital divide to be overcome. If there are signs of inequalities among even those who are online, the journey from non-user to skilled user may prove to be longer than previously thought.

This thesis will now undertake to identify further examples of the digital divide in Internet use and Internet user behaviour. Three possible outcomes are expected: the previous conclusion that a digital divide exists will be disproven or called into question; research will corroborate the conclusion that the digital divide exists to a lesser or similar extent, depending on circumstances; or research will show that the effect of the digital divide extends beyond Internet

access and use alone, and that inequalities will be exacerbated and demonstrated in a variety of ways in an online environment.

To assess how the digital divide might manifest itself in the experience of the Internet in South Africa in 2007, a citizen journalism website was chosen for a closer analysis of audience participation. The website, http://my.news24.com, or MyNews24, is germane to the scope of this research for several reasons. Firstly, it is reasonably well-trafficked, attracting – during the two period of analysis – close to 100 000 unique users a month, with over 80% of the users located in South Africa (Nielsen//NetRatings, 2008). In addition, traffic is pushed to MyNews24 from the News24 homepage, South Africa's most popular website, by a prominently highlighted area of hyperlinks to the most recently published user-generated articles on MyNews24. Given that news websites are one of the most popular genres of websites in most countries, and considering that News24 attracts the most local users of any content-driven website in South Africa, News24 provides a statistically rich pool of potential MyNews24 users. News24 can also be considered a significant South African media product, bound by the same ethical responsibilities as other news media spaces such as radio, newspapers and television. With the added layer of public participation and interaction, this thesis believes it is a space where evidence of the digital divide may manifest itself in ways other than those visible in internet access figures alone. The second part of this thesis to interrogates the space of public participation on MyNews24 to assess whether further digital divides may be manifesting online in a South African context.

The particulars of MyNews24 makes it an appropriate case study for this thesis' investigation into the digital divide in online spaces. First, the author was tasked with managing content and comments during the two sample periods, and so has been able to monitor user interaction personally and continually during the period of study. Second, as MyNews24 sits within News24, it is well-trafficked and prominently highlighted. This means there are enough possible Internet users who are exposed to MyNews24 and encouraged to participate in MyNews24 to create a sizable pool of Internet

users to study. Third, Internet users can participate and interact on MyNews24 in several ways; from simply reading content, to submitting articles for publication, to leaving anonymous comments on articles. This means that different aspects of Internet use can be interrogated, and differences in behaviour among different kinds of Internet users can be highlighted and analysed.

MyNews24 can also be considered a rich subject for study when looking for the possible development of a public sphere in South Africa. Returning to Poor's (2005, online) definition of a public sphere in relation to the Internet (namely: public spheres are places of discourse, often mediated; public spheres allow for new, previously excluded, discussants; issues discussed are often political in nature; and ideas are judged by their merit, not by the standing of the speaker), an analysis of MyNews24 will hopefully show whether or not discourse by Internet users around MyNews24 has resulted in an online public sphere. If there is evidence of this, it is expected to further problematise findings of the digital divide in South Africa, as interaction in this space may have added social and political consequences for those who participate.

There is a case to be made as to why MyNews24 may be an online public sphere. MyNews24 allows for a great deal of discourse among its users, with a comments facility at the bottom of each piece of user-generated content that allows for the publication of user comments on the issues presented in the piece following editorial moderation and review. There is no need to register to use the facility, so it is open to all users, including those who may not be used to entering into discussions or debates, and it also allows of course for non-South Africans to join discussions. A later analysis will show that MyNews24's position within the framework of a news website means that the majority of the content published and as a result the comments are political or news-related. Finally, as all commentators are presented on MyNews24 anonymously, and with no personal information, it may be found to be impossible to "judge ideas on the standing of the speaker" as it is virtually impossible to assign any kind of value judgment to an anonymous entity. Of

course, while flaming (or anonymous online ranting, often directed at individuals) does occur, it is in question if it is because of the social standing of the speaker, or because of the merits of the logic of the argument put forward. Thus, applying Poor's revised definition of an online public sphere, this thesis believes MyNews24 can be interrogated as a site for the development of a potential online public sphere. Through an analysis of MyNews24 and its users for online signs of the digital divide, this thesis will consider whether or not an online public sphere may exist around MyNews24; whether there is any value to the user in participating in this online public sphere; and finally whether or not the inequalities evident in the digital divide in South Africa are in some ways overcome or lessened once people are online.

Prior to an analysis of Internet users on MyNews24, it is useful to understand the history of MyNews24's conception as well as its current workflow. Here, there are already signs of how a digital divide has affected the Internet and Internet usage in South Africa.

4.1 History of MyNews24

MyNews24 was initially conceived as a South African citizen journalism website in 2006 by the then-publisher of News24, Elan Lohmann, and the editor, Jannie Momberg. While it was always intended to be constructed and managed in a similar way to citizen journalism sites like Ohmynews, it was never intended to be a space for self-publication within News24 (out of fear of what News24 might have to take editorial and legal responsibility for should Internet users be given *carte blanche* to publish without editorial moderation). It was unknown how un-moderated content might jeopardise the commercial interests of the greater News24 brand (who would take responsibility, for instance, should a defamatory remark or racist word be published, by an un-moderated user, on News24?), and it was deemed commercially inappropriate to commit more than one member of staff to an area of News24 that could not yet guarantee commercial and statistical success. MyNews24

was also not conceived in response to market pressures or demands from the News24 user base. News24 already had a letters section which generated up to 50 000 unique users a month and there was no direct call from News24 users for there to be a citizen journalism offering such as News24. Instead, inspiration was taken from the success of other citizen journalism websites in other countries. Due to the generation of content by News24 users, MyNews24 was considered an area of News24 that would contribute content without any direct financial investment in additional staff and/or content (although MyNews24 would later try to incentivise News24 users with cash payouts and competitions to drive up submissions). Whereas all other areas of News24 either rely on paid-for content from news and picture feeds, or original content generated by staff, MyNews24 was considered both a source of new, original content for News24 as well as a significant step in brand-development.

Given that MyNews24 was not conceived in direct response to a call for a local South African citizen journalism website, it was difficult to know how Internet users would respond to the brand and the objectives of citizen journalism, if at all. So uncertain was the endeavour, that MyNews24 was initially launched as "Your Say" in February 2007, to replace the News24 letters page. The thinking behind this "soft launch" was so that users could get used to the calls for content and experimentation with the product, without jeopardising the MyNews24 brand through any teething problems. Your Say would be rebranded into MyNews24 in mid-May 2007. It is because of this rebranding, amongst other reasons that the first period of collecting data from MyNews24 ran for a three-month period from June 2007 until the end of August 2007. The same three-month period was chosen again in 2008 for analysis, so that any changes in trends over a year-long period could also be observed.

The MyNews24 website was launched, and to date still sits, within the "confines" of News24. This means it is not marketed or run as a separate website, and traffic is predominantly generated by featuring MyNews24 content on the News24 homepage. This was not only a strategic branding

decision – in an attempt to introduce the MyNews24 brand on the back of the popularity and established reputation of News24 – but also because of severe technical limitations that required MyNews24 to be linked to the same content management system (CMS) that News24 uses currently. Thus, the MyNews24 site was launched on a CMS that was not built, nor modified, to suit its specific needs. Ultimately, while the MyNews24 website calls for, and requires, a high degree of user interactivity, both "offline" (such as encouraging users to write a piece of content, which they then do at home or after hours) and "online" (through direct, real-time interaction with the website when they wish to submit content or comment on other articles), the entire system is severely limited by a "flat" CMS toolset that is geared for moderate interactivity, but more specifically for a more traditional "top down" publishing approach that early news websites pioneered, and that most areas of News24 still prioritised in 2007 and 2008.

Through the development and commodification of a product like MyNews24, News24 has ultimately located what could be a public space of un-moderated and potentially valuable debate within the ambit of a moderated, commercialised and regulated national news media outlet. While the lack of further development of MyNews24 during its first two years of existence is in itself an interesting symptom of the larger issue of the digital divide, it does provide a fairly unchanging environment from which to draw figures and extrapolate information. Aside from fluctuations in user activity due to specific news events, both locally and globally, there were very few changes made to the MyNews24 website that would artificially inflate traffic to certain sections of the site, but not others. In addition, in both three month periods of analysis, there were no major news stories which could have artificially inflated statistics and participation.

User activity, or traffic, is measured on MyNews24 in two ways. First, a measure of unique browsers (over any given period of time) indicates how many unique IP addresses were registered visiting any section of the MyNews24 site. Thus, if an IP address was first logged on the first of a month, and the user returned several times in the four weeks that followed, it would

still only be counted as one unique user for a month. Yet if one user logged on from both his home and office computer, it would count as two. This measurement of traffic on any website is regarded as the best way to determine the kind of real audience the website attracted over an hour, a day, or a month, in the sample period. A measure of page impressions within MyNews24 during the sample period provides an indication of the total number of times any and all pages were accessed by all unique users. Thus, logically, a division of the number of page impressions by the number of unique users provides an average of the number of times one unique user accesses a page during the sample period. Using an Internet traffic monitoring tool called Nielsen//NetRatings, this data was collected for analysis. Nielsen//NetRatings also provided additional information about "loyal" MyNews24 users (measured as the number of returning unique users who accessed MyNews24 from month to month), of the geographical location of MyNews24 users and of the relative usage habits of MyNews24 users in comparison to News24 users. Nielsen//NetRatings also offers a certain degree of information about competitor sites and other market players, as well as demographical information about News24's users which help analysis.

It is already possible to draw comparisons here to Ohmynews and other citizen journalism websites like Nowpublic.com. Ohmynews.com, a website that enjoyed growth with – and because of – the development of democracy and a democratic movement in South Korea (Sutton, 2006), enjoys a much greater amount of usage by South Koreans, it appears, because its development was very organic. Fitting snugly into a social-political environment where it has been shown that Internet penetration is incredibly high (in part, because of the density of metropolitan areas which makes connectivity per person cheaper to provide for than, for example, rural areas of South Africa) and where there has been a high literacy and computer literacy rate coupled with a distrust of traditional media, Ohmynews is a popular news outlet for millions of South Koreans and international citizen journalists. There was grassroots support for the Ohmynews.com endeavour that helped to build the website into a credible news source. In contrast, MyNews24 was never developed in conjunction with any kind of local

"grassroots" movement. Particularly in its early months, there had to be a very active drive for contributions to the site, and the content submitted to MyNews24 has never been true citizen journalism. The description "user generated content" (UGC) seems more appropriate when one looks into the published content in both three month sample period. This "failure" of MyNews24 to live up to initial expectations is perhaps not a bad thing. The barrier to entry for Internet users to contribute to a citizen journalism website may be higher than that of a more loosely managed space for any and all user-generated content.

With an understanding of how MyNews24 was conceived and run during the sampled periods, this thesis will now demonstrate what kinds of Internet users engaged with MyNews24 (on a number of levels) and make a case for why this thesis believes the digital divide is of consequence. Should there be signs of inequalities among people participating on MyNews24 online, this thesis believes it will represent a culmination of the digital divide. And should it be found that interaction on MyNews24 is approximating an online public sphere, this thesis believes that continuing inequalities will demonstrate how meaningful spaces of online interaction could be contributing to certain segments of society as a whole, to the potential detriment of those without Internet access and to the representation of society as a whole. In demonstrating these potential facets of Internet users and their activity on MyNews24, this thesis will further test the three models of digital divide theory that have thus far been discussed.

4.2 Contextualising MyNews24

This thesis believes that because MyNews24's parent website News24 is the most popular South African website among South Africans, it makes it the most statistically significant website to analyse within a consideration of the digital divide in South Africa – particularly when looking at the make-up of South African Internet users, as its broad user base is most likely to represent the make-up of all South African Internet users. Nielsen//NetRatings (2008)

provides certain demographically relevant information about News24 users – which represent the potential pool of MyNews24 users and contributors. In order to demonstrate what inequalities are endemic to a space of Internet user participation such as MyNews24, it is necessary to understand what inequalities are evident in the population as a whole. During the two sample periods, information on South African News24 users' gender, place of Internet access, geographical location, home language, age and household income was recorded to help contextualise research findings into MyNews24 users. This is so that gaps that are identified – or not identified – in users of MyNews24 can be shown to either be part of a greater inequality or unique to MyNews24. This information is displayed in the tables that follow:

Table 12: Gender of News24 Users – June-August 2007 and 2008

	June 2007	July 2007	August 2007	June 2008	July 2008	August 2008
Male	55.91	56.34	56.00	56.42	55.65	56.17
Female	44.09	43.66	44.00	43.58	44.35	43.83

Table 13: Geographical location of access – June-August 2007 and 2008

	June 2007	July 2007	August 2007	June 2008	July 2008	August 2008
Johannesburg	29.56	29.68	30.43	31.10	30.79	29.35
Cape Town	18.39	18.84	18.20	17.11	17.22	17.16
Pretoria	16.03	17.08	16.54	16.33	16.42	15.76
Durban	4.90	4.38	4.18	5.07	5.34	5.44
Other	31.12	30.02	30.65	30.39	30.23	32.29

Table 14: Home language of News24 Users – June-August 2007 and 2008

	June 2007	July 2007	August 2007	June 2008	July 2008	August 2008
English	47.33	46.59	45.91	48.84	49.82	49.20
Afrikaans	36.83	37.63	37.91	32.59	32.77	33.79
Other	15.83	15.78	16.18	18.57	17.41	17.01

Table 15: Household income before tax – June-August 2007 and 2008

	June 2007	July 2007	August 2007	June 2008	July 2008	August 2008
Up to R50,000	8.74	9.05	8.83	9.40	9.75	9.35
R50,001 – R100,000	8.15	7.95	7.90	8.61	8.01	7.80
R100,001 – R150,000	8.00	7.63	7.58	6.73	6.13	6.78
R150,001 – R200,000	7.51	7.46	7.25	6.73	6.39	6.58
R200,001 – R250,000	6.45	6.50	6.66	5.82	5.96	5.84
R250,001 – R300,000	6.42	6.38	5.92	5.46	5.55	5.94
R300,001 – R350,000	5.32	5.30	5.19	4.95	4.75	4.87
R350,001 – R400,000	5.60	5.62	5.43	5.37	5.34	5.20
R400,000 or more	20.21	21.29	21.49	22.37	22.06	21.38
Don't know	9.45	8.90	9.12	8.87	9.10	9.12
Prefer not to say	13.91	13.69	14.44	15.54	16.78	16.96
Unknown	0.25	0.25	0.20	0.14	0.19	0.18

Table 16: Level of education – June-August 2007 and 2008

	June 2007	July 2007	August 2007	June 2008	July 2008	August 2008
Primary School or less	0.35	0.33	0.27	0.40	0.41	0.42
Some Secondary School	2.88	2.80	2.52	2.75	2.75	2.73
Completed Secondary School	18.53	17.66	17.93	17.68	17.93	17.73
Some Further Education College	22.93	23.13	22.88	23.22	23.05	22.65
Associate Degree or Diploma	21.56	21.50	21.02	21.01	21.41	21.20
Bachelor's Degree	16.27	16.86	17.41	17.26	16.72	16.90
Post Graduate Degree	17.49	17.72	17.97	17.68	17.73	18.36

Table 17: Age of News24 User – June-August 2007-2008

	June 2007	July 2007	August 2007	June 2008	July 2008	August 2008
Under 18	0.51	0.48	0.46	0.65	0.71	0.83
18-24	12.57	11.48	12.05	12.51	12.24	13.03
25-29	18.00	17.75	17.31	18.83	18.59	17.11
30-34	18.30	19.09	18.43	17.05	17.43	17.00
35-39	15.19	15.84	15.28	15.62	15.21	15.21
40-44	11.94	12.41	12.43	11.86	11.81	11.82
45-49	10.62	10.55	11.87	10.39	10.57	11.43
50-54	7.70	7.76	7.32	7.90	8.14	8.48
55-59	5.17	4.64	4.85	5.19	5.31	5.11

(Nielsen//NetRatings, 2008)

These tables demonstrate how most features about News24 users remained largely constant over both sample periods. This establishes a baseline for comparison of MyNews24 contributors. In both sample periods, News24 users were slightly more likely to be male than female and almost two-thirds of them resided in a major metropolitan area. Over time, English and Afrikaans home-speaking Internet users accounted for as much as 83% of News24 users, and by July and August 2008, almost 50% of News24 users spoke English at home. Just under 97% of News24 users had completed high-school, with 79% of News24 users having gone on to do some further educational training after high school. Around one fifth of News24 users lived in a household which earned R400 000 or more before tax a year, while a further +-45% lived in a home with a household income of between R50 000 and R400 000. The +-25% of respondents who have not supplied this information makes it hard to rely on this information as accurate. Around 50% of News24 users during this time were aged between 25 and 39. These tables demonstrate that there were no dramatic deviations in the kinds of people accessing News24 during both sample periods that would affect who was using and contributing to MyNews24 during both periods. These tables also highlight a number of potential barriers to entry for a website such as News24 (and as a result, MyNews24). Geographical location (and proximity to an urban or metropolitan area), home language and matric certification present as strong determining factors, where factors such as gender, age and household income appear to be less important. This also demonstrates how factors may work together in determining whether or not a person accesses the Internet in South Africa: in non-urban areas, household income or home language may be more of a determining factor; for non-English or -Afrikaans speaking users, household income or geographical location may be more important. This recalls Van Dijk's (2005, 11) preference for using a "relational or network" approach to researching digital divides, rather than methodological individualism. These statistics demonstrate how it may be more likely that a combination of factors, rather than individual factors, determines use of News24. Thus it is clear from the outset that any interrogation into MyNews24 as a case study for learning more about South African Internet users may not reveal clear signs of a digital divide. Despite this, knowing who the potential pool of MyNews24 users is

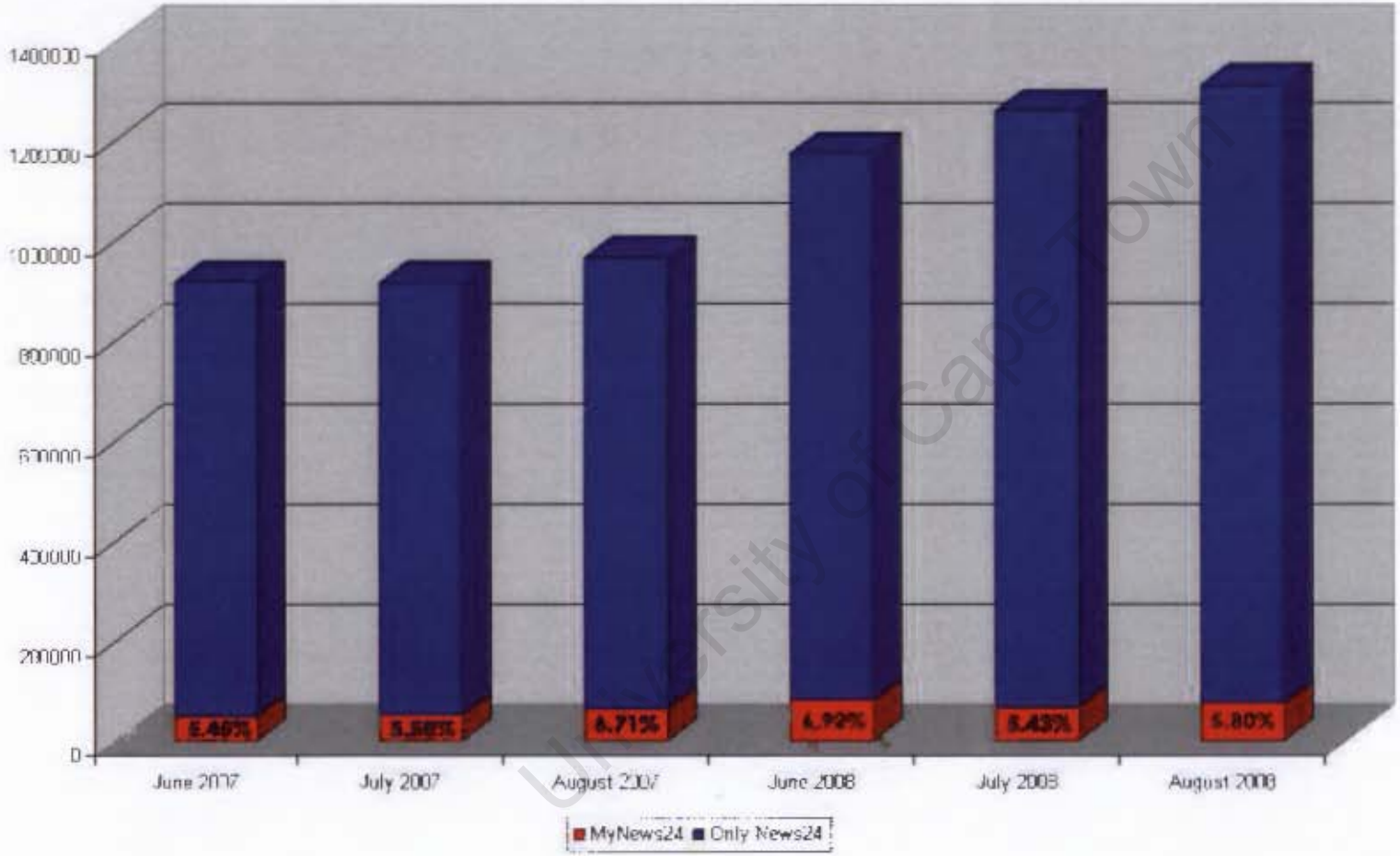
made up of helps to identify any obvious gaps we may find in an analysis of MyNews24.

It must also be said at the outset that one online space like MyNews24 does not necessarily reflect the complete experience for a South African Internet user. MyNews24 was chosen for analysis because of its position in the local online market, but it is perhaps fair to mention that there are several other spaces where South African Internet users interact on the Internet that may provide similar or dissimilar results when analysed in a similar fashion. These other, smaller spaces may be the site for interaction among groups absent from MyNews24, for instance. Choosing MyNews24 as a focus of this study does also suggest a commercial bias, in the sense that it is presupposed a popular website might better reflect the overall picture, when compared to a website that attracts less monthly traffic. But it is for this very reason that this thesis believes an analysis can be better informed than most.

4.3 Signs of the digital divide among MyNews24 users

Statistical data was gathered from News24 and MyNews24 using Nielsen//NetRatings for the period 1 June 2007 to 31 August 2007 and 1 June – 31 August 2008. Information such as how many people were using the website, how they were using it and what they were saying on it was collected. According to Alexa.com traffic rankings (Alexa.com, 2008), News24 is South Africa's most popular website among South African web users. During the two periods of analysis for this study – June, July and August 2007 and 2008 – News24 attracted 917 539, 916 602 and 966 928 (2007) and 1 174 641, 1 259 141 and 1 311 810 unique South African users (Nielsen//NetRatings, 2008) respectively. An investigation into use of News24 versus use and possible interaction on MyNews24 reveals the limitations of the Internet as a space for interaction. A comparison of the total number of unique browsers recorded in MyNews24, and News24 as a whole for the time period appears as follows:

Figure 20: Unique Browsers June-August 2007 and 2008 – News24 and MyNews24



(Nielsen//NetRatings June-August 2007)

This thesis believes it is significant to bear in mind this information about unique users on News24 and MyNews24 during the two sample periods for a number of reasons. First, it appears at first glance that an online space for user interaction is not a priority for News24 users. Whether this is due to a particular characteristic of South African Internet use – i.e. that they are perhaps not as comfortable interacting online as many have not been online for as long as the average users in the global Internet community – or if this represents a particular trend germane to Internet users around the world, bears further inquiry. The numbers do seem to suggest however that, despite the Internet being lauded as space for user interaction, at least in the case of a South African news website, the majority of Internet users have not yet identified a space for user interaction such as MyNews24 as a priority for them to visit, let alone in which to participate. No more than 7% of News24 users visited MyNews24 to participate or interact in either of the three month periods of analysis.

This is of concern from a digital divide point of view for a number of reasons. First, as has been stressed earlier in this thesis, the numbers of South Africans accessing the Internet is remarkably low. In this instance, when we investigate the accessing of a news website, and then further still the accessing of a section of that website which places emphasis on interaction, the numbers of South African Internet users drop to mere tens of thousands. In a country where the population is close to 50 million, this is surely a significant discrepancy. Second, as this information is not available at all to News24 users, content and commentary on MyNews24 can be mistaken for opinion contributed by far more News24 users – and possible a far more diverse group of users – than is actually the case. This raises concerns about what opinions and commentary are being displayed to the rest of South Africa the world, under the guise of a user-generated, free-for-all banner. Within the context of News24, it may be that content and commentary published on MyNews24 is considered a dominant or representative view of South African life and society, which is certainly problematic. This graph also demonstrates how, despite the total number of News24 users increasing over time, the gaps between news readers and Internet commentators on MyNews24 have

remained virtually the same over both time periods. This may suggest that, in the case of interactive online participation, there are signs of a persisting and growing digital divide among Internet users. The notion proposed by the disappearing digital divide model that, once gaps of access are bridged, there will be homogenous Internet use, does not seem to be the case here.

In order to demonstrate how users interacted with content on MyNews24, and who was contributing content and commentary to MyNews24 during both sample periods, a variety of information was collected. First, a list was made of all articles published on MyNews24 within the two three-month periods. The content published was categorised according to genre (news, politics, sport, entertainment, lifestyle, consumer, finance and media) and the number of page impressions and comments received were recorded for each article. Information on the author of each article was collected as well, with data on the author's gender and the race entered along with the author's name. Where this information was unknown, or called into question (due to anonymous writers or authors unwilling to reveal this information via e-mail to the author of this thesis), gender and/or race was marked as unknown. This database of information was then analysed for both the 2007 and 2008 period, in the hopes that either persisting or unanticipated trends would emerge. This information was then used to re-evaluate MyNews24 according to Poor's online public sphere model.

4.3.1 Number of items of content published on MyNews24

During the sample periods – June, July and August 2007 and June, July, August 2008 – a total of 225 and 223 articles by MyNews24 users were published respectively. Excluding weekend days, on which no MyNews24 content was published due to limited editorial resources and low Internet traffic, this publishing schedule relates to an average of 3.46 pieces of unique user generated content over 65 work days in 2007, and 3.43 pieces of unique user generated content over 65 work days in 2008. While this number may seem fairly low when one considers how many people accessed MyNews24 in each month, it still represents a substantial number of user-generated

pieces of content considering that the nature of citizen journalism relies solely on impetus from the user to – quite literally – generate content. Given also that MyNews24 does not pay contributors and so cannot commission or request that content be written as in a traditional newsroom environment, this average of published pieces per day is a reasonable offering from a market that seemingly did not exist prior to the launch of MyNews24.

In 2007, these 225 pieces of content generated 381 454 page impressions, and in 2008, the 223 pieces of content generated 669 649 page impressions. Thus on average, in 2007, each piece of content generated an average of 1695 page impressions, and in 2008 each piece of content generated an average of 3002 page impressions. This represents an almost 80% increase in the average number of page impressions per article on MyNews24 from 2007 to 2008. The total number of articles published remained constant due to an editorial publishing schedule. And as the total number of unique users did not increase by this same margin, it suggests that this increase in page impressions was caused by repeated visits to articles by the same MyNews24 users than by new users. A likely reason for this is because commentary on articles became more popular among users, but this theory will be tested in a later section.

It is also important to note that some authors contributed more than one article during each sample period. Thus, unless otherwise stated, this thesis will consider individual articles as article units, and not all articles by individual author as one unit. In addition, comments received next to each article indicate the total number of comments received, and not the number of published comments, as this thesis is interested in the activities of Internet users and not of the moderators of these comments.

Content published on MyNews24 would undergo the following process:

1) A News24 user would submit a written piece of content to News24 using an online web form.

2) The author, or occasionally another member of staff, would receive the written piece of content in the form of an e-mail, which featured only the Internet user's e-mail address (which was not verified – meaning false e-mail addresses could be used).
3) The author would review the content, and if it was appropriate for possible publication, respond in an e-mail to the e-mail address provided asking the author of the piece to confirm their full name, area in which they live, preferred publication name, demographical information and to supply a photo if they so wished.
4) Once a response was received (and only once a response was received) verifying this information for record-keeping purposes, the article would be sub-edited for style and grammar and punctuation errors and loaded into the News24 CMS.
5) Thumbnails, related links, photographs and text-based hyperlinks and disclaimers would be added to the content.
6) Publication would take place on an ad-hoc basis, taking into account the strength of a piece of content based on its newsworthiness. This would mean some pieces of user-generated content would take mere minutes to be published, others could take hours or even days.
7) Comments submitted by users would be added to a database, and await moderation by editorial staff prior to publication. Comments were deleted without publication if they contained swear words, overt racism or name-calling, and closer attention was paid to users who submitted under a variety of different names (with differing opinions in an attempt to cause controversy).

4.3.2 Genre of content in 2007 and 2008

Data collected on the genre of content published in each three-month period of 2007 and 2008 shows a shift in the kinds of content submitted by MyNews24 users between the two time-periods. The number of articles in each genre in the 2007 and 2008 three-month period was tabulated, as well as the number of page impressions and average number of page impressions

per article per genre *(Table 18)*. This is to demonstrate which kinds of articles were most popular during both sample periods among authors, as well as readers of articles.

This table shows the shift towards the writing of more news and politics-oriented pieces by News24 users between 2007 and 2008, and a decrease in leisure-oriented genres such as entertainment, finance, SciTech and sport. In 2008, the increase in news articles can be in part attributed to an additional twenty news articles written about Zimbabwe. While the majority of these articles mentioned the political situation in Zimbabwe, as it was not a political issue that directly pertained to South Africa's democracy, and was related to ongoing news articles about the Zimbabwe elections, these articles were classified as news instead of politics. Also couched within the news articles in 2008 were three articles which featured videos of news events filmed by MyNews24 users, which proved to be very popular among readers of content on MyNews24. These articles generated 29907 page impressions which contributed to the overall popularity of the news genre in 2008. In 2007, articles on consumer-related issues were the most popular among readers, as they generated on average 2456 page impressions per article. In 2008, the most popular kind of article by page impressions was a news article, followed closely by politics articles. With the articles which featured videos discounted, political articles were the most popular genre. In both years, news and politics articles were by far the most popular among writers, and to a slightly lesser extent among readers. Considering how politicised many news events are in South Africa, these two genres represent a considerable leaning to content about current affairs, which is understandable considering MyNews24's placement within a news website – Internet users would visit News24 to read news, and it is understandable that the most common kind of article these users then submitted to News24 would be articles on similar topics.

Table 18: Number of articles per genre in 2007 and 2008

		Consumer	Entertainment	Finance	Lifestyle	Media	News	Politics	SciTech	Sport
2007	# of articles	4	12	5	40	8	55	51	9	41
	% of articles	1.78%	5.33%	2.22%	17.78%	3.56%	24.44%	22.67%	4.00%	18.22%
	Total page impressions	9824	26614	5807	63460	17610	101480	82123	9451	65085
	% total page impressions	2.58%	6.98%	1.52%	16.64%	4.62%	26.60%	21.53%	2.48%	17.06%
	Average page impression	2456	2218	1161	1587	2201	1845	1610	1050	1587
	Total comments	220	329	82	1325	162	1759	2173	190	1153
	% of total comments	2.98%	4.45%	1.11%	17.92%	2.19%	23.79%	29.39%	2.57%	15.60%
	Average # of comments	55	27.4	16.4	33.1	20.25	32	41.8	19	28.1
2008	# of articles	19	0	15	36	5	84*	34	2	28
	% of articles	8.52%	0.00%	6.73%	16.14%	2.24%	37.67%	15.25%	0.90%	12.56%
	Total page impressions	39500	0	49598	92782	10410	283780	112135	3109	77119
	% total page impressions	5.91%	0.00%	7.42%	13.88%	1.56%	42.45%	16.78%	0.47%	11.54%
	Average # of page impression	2079	0	3307	2577	2082	3378	3298	1555	2754
	Total comments	1563	0	1353	4135	568	11715	5606	109	3413
	% of total comments	5.49%	0.00%	4.75%	14.53%	2.00%	41.16%	19.70%	0.38%	11.99%
	Average # of comments	82.3	0	90.2	114.9	113.6	141.1	164.9	54.5	121.9

*Twenty news articles about Zimbabwe were tagged as News, despite their focus on the political situation in Zimbabwe. Were they to be considered political stories, there would be 64 news articles and 54 politics articles.

An analysis of content published on MyNews24 by genre *(Table 18)* demonstrates the popularity of different kinds of content among authors, readers and commentators of MyNews24 in 2007 and 2008. In 2007, news, politics, sport and lifestyle articles were the most popular kinds articles (in descending order) published on MyNews24. News and politics articles combined made up 47% of all articles, which is not unexpected for a news-oriented website. In terms of total page impressions – which indicate how well each article per genre was read – news, politics, sport and lifestyle were similarly the most popular kinds of articles among readers, with news and politics articles once again contributing over 48% of all article page impressions during the time period. By average page impressions per article, consumer, entertainment and media proved the most popular genres. In terms of the total number of comments received per genre, politics, news, lifestyle and sport were the most popular (again in descending order) among commentators, with an average of almost 42 received comments for each politics article, followed by news (32), sport (28) and entertainment (27). Consumer articles average the most number of comments per article – 55.

In 2008, news (84), lifestyle (36), politics (34) and sport (28) were the most popular kinds of articles among authors, with 20 articles on the subject of Zimbabwe contributing to the increase in popularity of news articles among authors. News (37.5%) and politics (15.25%) articles made up over 50% of total articles and generated close to 60% of all article page impressions. News (41%) and politics (19%) contributed 60% of all comments received with an average number of comments per article being highest for politics (164.9), news (141.1) and sport (121.9). Noticeable differences between 2007 and 2008 usage and contribution on MyNews24 includes a 75% increase in total page impressions, an almost 300% increase in consumer and finance articles, a 53% increase in news articles, and a decrease in the number of politics articles (33.3%) and sport articles (32%). There were no entertainment articles published in 2008. The average number of page impressions per article decreased only for consumer and media articles. The total number of comments received increased by 285% between 2007 and 2008 which suggests the strong development of debate and interaction around MyNews24

content by 2008. Thus a shift in the kind genre of content published by authors, the kinds of content popular among readers, and the kind of content which encouraged commentary is evident between 2007 and 2008. In particular, MyNews24 users – authors, readers and commentators – appear to have become more interested in discussing current affairs and politics on MyNews24. The substantial increase in the number of comments received during the 2008 period of analysis when compared to the 2007 period suggests a shift in the culture of people interacting with MyNews24 – users appeared to be far more inclined to discuss the content of articles using the comments board in 2008 than 2007. Recalling Poor's (2005, online) definition of online public spheres (public spheres are places of discourse, often mediated; public spheres allow for new, previously excluded, discussants; issues discussed are often political in nature; and ideas are judged by their merit, not by the standing of the speaker), it is apparent that the number of comments in total received (and the fact that these comments were moderated) suggests that MyNews24 is a place of mediated discourse. The other facet of Poor's online public spheres that has been demonstrated is that, on MyNews24, issues discussed are often political in nature; news and politics articles were consistently the most popular kinds of content in both sample periods. Thus these statistics demonstrate both that MyNews24 bears some of the hallmarks of an online public sphere: MyNews24 users preferred news and politics stories over other genres, and grew more accustomed to commenting and discussing these articles from 2007 to 2008.

4.3.3. Gender of MyNews24 users

To evaluate how the digital divide may be affecting a possible public sphere like MyNews24, this thesis will now evaluate what kinds of people were interacting with MyNews24 during the sample period, and what kinds of people were more likely to encourage debate. The gender of each author was captured and tabulated according to the genre of content.

Table 19: 2007 articles by gender of author

	Articles by Males	Articles by Females	Unknown
Total number of stories	166	41	18
Percentage of articles	73.78%	18.22%	8.00%
Total PI per gender	274862	78071	28521
Percentage of total PI per gender	72.06%	20.47%	7.48%
Ave PI per story	1655.80	1904.17	1584.50
Total comments per gender	5401	1337	609
Percentage of total comments per gender	73.51%	18.20%	8.29%
Ave comments per story per gender	36.52	32.61	33.83

Table 20: 2008 articles by gender of author

	Articles by Males	Articles by Females	Unknown
Total number of stories	177	18	28
Percentage of articles	79.37%	8.07%	12.55%
Total PI per gender	537068	46797	84568
Percentage of total PI per gender	80.35%	7.00%	12.65%
Ave PI per story	3034.28	2599.83	3020.29
Total comments per gender	23000	2016	3446
Percentage of total comments per gender	80.81%	7.08%	12.11%
Ave comments per story per gender	129.9	112	123.1

Table 21: 2007 genre of content by gender (not including where gender was unknown)

		Consumer	Entertainment	Finance	Lifestyle	Media	News	Politics	SciTech	Sport
2007	**Male**	2	7	4	27	6	35	38	9	38
	Percentage of total articles	1.20%	4.22%	2.41%	16.27%	3.61%	21.08%	22.89%	5.42%	22.89%
	Total PIs per genre	6582	16249	4465	41494	13594	63854	59849	9451	59324
	Percentage genre PI per total	2.39%	5.91%	1.62%	15.10%	4.95%	23.23%	21.77%	3.44%	21.58%
	Ave PI per article	3291	2321	1116	1537	2266	1824	1575	1050	1561
	Total comments	147	194	49	891	129	1166	1616	167	1042
	Percentage total comments per genre	2.72%	3.59%	0.91%	16.50%	2.39%	21.59%	29.92%	3.09%	19.29%
	Average comments per article	73.5	27.71	12.25	33	21.5	33.31	42.53	18.56	27.42
		Consumer	**Entertainment**	**Finance**	**Lifestyle**	**Media**	**News**	**Politics**	**SciTech**	**Sport**
	Female	1	5	1	12	2	14	4		3
	Percentage of total articles	2.38%	11.90%	2.38%	28.57%	4.76%	33.33%	9.52%		7.14%
	Total PIs per genre	2067	10365	1342	20950	4016	29408	4162		5761
	Percentage genre PI per total	2.65%	13.28%	1.72%	26.83%	5.14%	37.67%	5.33%		7.38%
	Ave PI per article	2067	2073	1342	1746	2008	2262	1041		1920
	Total comments	6	140	76	364	92	405	145		57
	Percentage total comments per genre	0.47%	10.89%	5.91%	28.33%	7.16%	31.52%	11.28%		4.44%
	Average comments per article	6	28	76	30.33	46	31.15	36.25		19

Table 22: 2008 genre of content by gender (not including where gender was unknown)

		Consumer	Entertainment	Finance	Lifestyle	Media	News	Politics	SciTech	Sport
2008	**Male**	11		14	31	4	63	28	2	24
	Percentage of total articles	6.21%		7.91%	17.51%	2.26%	35.59%	15.82%	1.13%	13.56%
	Total PIs per genre	19545		47058	80472	7768	218191	91801	3109	69124
	Percentage genre PI per total	3.64%		8.76%	14.98%	1.45%	40.63%	17.09%	0.58%	12.87%
	Ave PI per article	1776.82		3361.29	2595.87	1942.00	3463.35	3278.61	1554.50	2880.17
	Total comments	713		1270	3686	512	9030	4773	109	2918
	Percentage total comments per genre	3.10%		5.52%	16.02%	2.23%	39.24%	20.74%	0.47%	12.68%
	Average comments per article	59.41		90.71	118.90	128.00	143.33	170.46	54.50	121.58
		Consumer	**Entertainment**	**Finance**	**Lifestyle**	**Media**	**News**	**Politics**	**SciTech**	**Sport**
	Female	5			3	1	7			2
	Percentage of total articles	27.78%			16.67%	5.56%	38.89%			11.11%
	Total PIs per genre	11756			8986	2642	20708			2705
	Percentage genre PI per total	25.12%			19.20%	5.65%	44.25%			5.78%
	Ave PI per article	2351.2			2995.3	2642	2958.29			1352.5
	Total comments	530			311	56	988			131
	Percentage total comments per genre	26.29%			15.43%	2.78%	49.01%			6.50%
	Average comments per article	106			103.66	56	141.14			65.5

Table 23: 2007 authors by gender

	Male authors	Female authors	Unknown
Total number of authors	84	36	18
Percentage of authors	60.86%	26.08%	13%
Total PI per gender	274862	78071	28521
Percentage of total PI per gender	72.06%	20.47%	7.48%
Ave PI per author	3272	2168	1584
Total comments per gender	5401	1337	609
Percentage of total comments per gender	73.51%	18.20%	8.29%
Ave comments per author	64.3	37.14	33.83

Table 24: 2008 authors by gender

	Male authors	Female authors	Unknown
Total number of authors	81	16	24
Percentage of authors	66.94%	13.22%	19.83%
Total PI per gender	537068	46797	84568
Percentage of total PI per gender	80.35%	7.00%	12.65%
Ave PI per author	6630	2924.8	3523.7
Total comments per gender	23000	2016	3446
Percentage of total comments per gender	80.81%	7.08%	12.11%
Ave comments per author	284	126	143.6

These statistics highlight a gender inequality among MyNews24 users who had content published, as well as a gender bias among readers and commentators towards male MyNews24 authors. In both 2007 and 2008, articles written by men were in the majority – with over 70% of all articles published written by men. The percentage of articles written by women was considerably lower in both years, and even if all unknown contributors were women, the gap between male and female contributors has grown between 2007 and 2008. Despite this, articles written by women were more popular among readers in 2007 and competed with male authors and authors where gender was unknown where an average number of comments per article is concerned. By 2008, the gap had widened and articles by women were now least likely to be read and commented on, despite the total increase in page impressions and comments in 2008 as a whole. In 2007, men were most likely to write about politics and sports, followed closely by news and then lifestyle issues. Women were most likely to write about news and lifestyle, but as there were so few articles written by women in this time, it may be problematic to draw conclusions from this consideration of content by genre written by women. Articles written by men on consumer issues and entertainment were most popular among readers, while articles written by men on consumer issues and politics were most popular among commentators in 2007. Among articles written by women, news articles written were most popular with readers, while finance and media articles were most popular among commentators in the same year (although this genre by women did not appear often). In total, articles written by men were four times as likely to appear on MyNews24 than articles written by women. In terms of authorship (as authors often submitted more than one article during both sample periods), male authors were almost twice as likely to participate than female authors, and male authors were more likely to write repeatedly (81 male authors wrote 166 pieces of content, 36 female authors wrote 41 articles – authors who wished to remain anonymous only contributed one during the sample period) in 2007. It is here where the real level of gender inequality becomes apparent: only 25% of authors on MyNews24 in 2007 were female, and if unknown authors are excluded, 30% of known authors were female. These female authors were least likely to be read, but most likely to be commented on during the sample period.

The difference in participation by gender is noticeable by 2008. Only 8% of articles were written by women, with a slight increase in articles written by men and a greater increase in articles where the author's gender was unknown. Articles written in 2008 were far more popular among both readers and commentators, but articles by women were read the least and commented on the least. Men in 2008 were most likely to write articles about issues in the news, followed by lifestyle, politics and sports articles. Articles about politics by men generated the most commentary, followed by news and media articles. Articles written by women numbered so few it was again hard to draw conclusions, but women were most likely to write about news articles and MyNews24 users were most likely to read news and lifestyle articles by women and comment on news articles by women. The total number of female authors had decreased by half in 2008, with male authors once again more likely to submit more than one article in the sample period, with a slightly higher average number of stories per male author than in 2007. By 2008, male authors were receiving over 280 comments each, which represents an increase of over 433% from 2007. Thus it is evident that the most dominant voice on MyNews24 during both 2007 and 2008 sample periods was male, with female representation actually decreasing between 2007 and 2008. Male voices were also most popular among MyNews24 users, with articles by males being read by more people and commented on more frequently. The result of this inquiry into gender participation is similar to that of Albrecht (2006), where a substantial gender gap was found in the participants of an online political discussion in Hamburg. This suggests gender inequality may not be endemic to the digital divide in South Africa, but does still support a persistence and growth model among women in political discussion and debate.

Given that debate appeared to become more robust due to a substantial increase in comments by 2008, the fact that women authors appear so infrequently on MyNews24 has significance. Given that on News24 as a whole during both sample periods there was roughly a 56%-44% split in men and women on News24, this substantial decrease in participation by women as authors indicates some form of divide happening in the online space of

MyNews24. This could indicate one or two digital divide theories: the persistence and growth model (as a slight inequality between men and women among News24 users has developed into a substantial inequality between men and women when assessing contributors to MyNews24) or the emerging digital differentiation (as a slight inequality between men and women among News24 users could be considered too small to be of concern, and the significant spike in male participation says more about how males are more suited to discourse on the Internet than about how females are less so.

Based on this information, MyNews24 can be better evaluated a as a possible online public sphere. It has again been demonstrated that political discourse (and news-related discourse) is dominant on MyNews24, and that discussion is moderated. But it is as yet unclear if the "previously excluded is being included"; if women were participating in public spheres offline before, they do not seem to be participating online. And if they were not participating offline, the Internet does not seem to have paved the way for them to join these spaces in the online world. Bias among readers and commentators to participate more with articles and discussions about topics written by males (and this bias stems from a News24 user-base which is split 56%-44% in favour of men) does seem to suggest the "merits of the speaker" are being taken into account. Women are least likely to be engaged with by readers and commentators which suggests men are the preferred originators of topics for debate among a slightly male-dominated audience.

4.3.4. Race of MyNews24 users

A more sensitive and complicated line of inquiry into MyNews24 users revolves around the race of contributors. This thesis has demonstrated how there is a greater inequality among men and women on MyNews24 when compared to News24 users in general. While race is always a problematic area of discussion, given the history of South Africa, correlations between race and economic status (as previously discussed by LSMs) do exist. While race is not a specific area of focus as per Nielsen//NetRatings, information on home

language among News24 users suggests some degree of inequality of use among races, even if it is difficult to draw direct comparisons. For the purposes of this section, MyNews24 authors were asked to indicate their race as either Asian (including Indian), Black (including Coloured), White or Unknown (if they did not want their race to be known). The results have been similarly tabulated.

Table 25: Race of author per article in 2007

	Asian	Black	White	Unknown
Total number of articles	15	48	123	39
Percentage of articles	6.67%	21.33%	54.67%	17.33%
Total PI per race	25404	61556	220855	73639
Percentage of total PI per race	6.66%	16.14%	57.90%	19.30%
Ave PI per article	1693.6	1282.4	1795.57	1888.18
Total comments per race	501	1294	4097	1455
Percentage of total comments per race	6.82%	17.61%	55.76%	19.80%
Ave comments per article	33.4	27	33.3	37.3

Table 26: Race of author per article in 2008

	Asian	Black	White	Unknown
Total number of articles	4	79	101	39
Percentage of articles	1.8%	35%	45%	17.5%
Total PI per race	10180	229463	320129	108661
Percentage of total PI per race	1.52%	34.33%	47.89%	16.26%
Ave PI per article	2545	2904.6	3169.6	2786
Total comments per race	397	11180	12231	4654
Percentage of total comments per race	1.39%	39.28%	42.97%	16.35%
Ave comments per article	99.25	141.5	121.1	119.3

Table 27: Genre of content by race

		Consumer	Entertainment	Finance	Lifestyle	Media	News	Politics	SciTech	Sport
2007	**Asian**		**3**		**1**		**4**	**2**	**3**	**2**
	Average PI		1980		2886		1593	2304	556.3	1965
	Average Comment		17.66		102		27.5	58	20	30
	Black	**1**	**2**	**1**	**7**	**1**	**7**	**18**		**11**
	Average PI	1175	5641	821	575	1826	1037	1454.7		817
	Average Comment	18	60.5	10	14.7	28	24.9	38.4		13.5
	White	**3**	**7**	**3**	**25**	**4**	**30**	**21**	**6**	**24**
	Average PI	2883	1342	1215	1783	1284	2154.8	1538.5	1297	1864
	Average Comment	67.3	22.1	13	37.9	18.2	33.67	39.7	17.8	30.4
	Unknown			**1**	**7**	**3**	**14**	**10**		**4**
	Average PI			1342	1711	3549	1657.6	1902		1861
	Average Comment			33	24.7	20.3	33.2	50.8		53.8
		Consumer	**Entertainment**	**Finance**	**Lifestyle**	**Media**	**News**	**Politics**	**SciTech**	**Sport**
2008	**Asian**			**1**	**1**		**2**			
	Average PI			2320	1449		3205.5			
	Average Comment			61	49		143.5			
	Black	**3**		**3**	**15**	**1**	**30**	**20**		**7**
	Average PI	1635		4850	2463.7	2623	3196.1	3270.8		2690.1
	Average Comment	87		45.7	123	76	151.7	168.2		135.1
	White	**12**		**9**	**18**	**3**	**34**	**8**	**2**	**15**
	Average PI	1981.2		4085.9	2882.4	2011	3811	3498.4	1554.5	2730.6
	Average Comment	70		109.2	120.1	101	141.4	177.1	54.5	107.3
	Unknown	**4**		**2**	**2**	**1**	**18**	**6**		**6**
	Average PI	2696.3		2827.5	1247.5	1754	2883.9	3122		2888
	Average Comment	115.5		86	40	189	114.8	137.7		143

Table 28: 2007 authors by race

	Asian	Black	White	Unknown
Total number of authors	7	24	81	30
Percentage of authors	4.9%	16.9%	57%	21.1%
Total PI per race	25404	61556	220855	73639
Percentage of total PI per race	6.66%	16.14%	57.90%	19.30%
Ave PI per author	3629.1	2564.8	2726.6	2454
Total comments per race	501	1294	4097	1455
Percentage of total comments per race	6.82%	17.61%	55.76%	19.80%
Ave comments per author	71.6	53.9	50.6	48.5

Table 29: 2008 authors by race

	Asian	Black	White	Unknown
Total number of authors	3	30	58	33
Percentage of authors	2.4%	24%	46.8%	26.6%
Total PI per race	10180	229463	320129	108661
Percentage of total PI per race	1.52%	34.33%	47.89%	16.26%
Ave PI per author	3393	7648.8	5519.5	3292.8
Total comments per race	397	11180	12231	4654
Percentage of total comments per race	1.39%	39.28%	42.97%	16.35%
Ave comments per author	132.3	372.7	210.9	141

In 2007, a little over one in every two articles were written by white MyNews24 users, and a little over one in every five article were written by black MyNews24 users. Articles where the author's race was unknown or in doubt were slightly more likely to be read than articles by white MyNews24 users, while articles written by Asian MyNews24 users were most likely to be commented on. White authors were most likely to write about news events, followed by articles on lifestyle issues, sports and then politics. More than one out of every three articles written by black authors was about politics, with black authors writing almost as many articles on politics as white authors. Authors who wished their race to remain unknown wrote mostly news and politics articles as well. White authors were far more likely to write about leisure-related topics such as entertainment and sport. Articles about politics were on average the most commented on, with spikes in reads and comments on entertainment articles written by black authors, consumer articles written by white authors and lifestyle articles written by Asian authors. Black authors wrote on average two stories during the sample period, with white authors writing an average of 1.5 articles each. Asian authors wrote slightly more than two articles on average, with authors of unknown race averaging just over one article per author. Almost two out or every three authors were white while almost 17% of authors were black.

By 2008, black authors had significantly increased in real numbers, as well as the number of articles they were contributing. In 2008, 35% of articles were written by black authors, and 45% were written by white authors. Articles by black authors had increased by 66% from 2007 to 2008 while the number of articles written by white authors had actually decreased by 18%. Articles written by white authors were still more likely to be read, but articles written by black authors were not most likely to be commented on (as opposed to least likely in 2007), with an increase in average comments on articles by black authors of over 520%. Asian authorship dropped substantially between 2007 and 2008, while articles by authors of unknown race remained fairly constant. Black authors by 2008 were more likely to write about news and politics articles combined than white authors (white authors were only slightly more likely to write news articles, but not politics articles, when compared to black authors) but news and politics articles by white authors were still more likely to be read

and commented on than those by black authors. The real number of individuals per race reveals how black authors wrote on average 2.6 articles in while white authors wrote on average 1.7 articles each. Individual black authors received on average over 7 500 page impressions each, and over 370 comments each, which is an almost 700% increase in average comments per author from 2007 to 2008. The real number of white authors from 2007 to 2008 decreased by almost 30%.

Given that over both sample periods between 15.5% and 18.5% of News24 users spoke a language other than English or Afrikaans at home, the fact that at least 17% of MyNews24 authors in 2007 and 24% of MyNews24 authors in 2008 were black suggests at least some black authors speak English as their home language. In addition, given that MyNews24 publishes only articles in English, it may be that very few non-home-English-speaking black authors were writing for MyNews24 over this time period. The number of black authors by 2008 also does not correlate completely with the percentage of non-urban Internet users, given that there is a higher percentage of black South Africans living in rural areas and informal settlements. Given again that News24 users are in general urban dwellers, and have post-high school qualifications, these black authors most likely do not represent the average black South African. While these conclusions cannot be made with absolute certainty it is still clear that black South Africans have increased their representation on MyNews24 and are often the most popular authors by readership and commentary among MyNews24 readers as a whole. Unlike the decrease in female contributors from 2007 to 2008, black contributors have increased both in real numbers and in their frequency of contribution. In fact, the most prolific eight black authors (all male) – identified as authors who wrote four or more articles – contributed 51 articles in 2008 on their own, 32 of which were about news and politics. There were only six white authors (all male) who wrote four or more articles during the same period, contributing 40 articles in total, of which only 15 were news and politics articles (18 were about lifestyle and sport).

Black authors have thus been demonstrated as an unexpectedly represented segment of the population among MyNews24 contributors. While the gap

between men and women appears to have grown on MyNews24 between 2007 and 2008, the gap between white and black MyNews24 users has shrunk over the same time period. Black authors also appear to be leading the formation of a possible public sphere by 2008, as they were more likely to write about news and politics than other races. Of these black authors in 2008, only 3 were women and 1 was of unknown gender. Only 13 of the 101 articles written by white MyNews24 users were written by women in the same time period, with only 1 white author of unknown gender. This suggests both black and white male authors were the most prolific contributors on MyNews24. They also generated the greatest number of reads and comments among MyNews24 readers in both 2007 and 2008, as the following tables demonstrate.

Table 30: Articles by race and gender

		Black	White	% Increase	
2007					
	Male	41	97	-	
	Female	3	21	-	
2008					
	Male	75	87	83%	-11%
	Female	3	13	N/A	-38%

Table 31: Authors by race and gender

		Black	White	% Increase	
2007					
	Male	17	56	-	
	Female	3	20	-	
2008					
	Male	26	46	53%	-18%
	Female	3	11	N/A	-45%

Thus there is evidence of emerging digital differentiation among black men on MyNews24. Put another way, being male seems to be a stronger determining factor among MyNews24 authors than race, and thus race has been shown to be not as strong a determining factor as gender. Black women, however, appear to be disadvantaged when it comes to MyNews24 use by both their race and gender.

4.5 Conclusion

The disappearing digital divide approach can be said to be disproven after an analysis of MyNews24 users. There is evidently not homogenous Internet use and activity once people gain access to the Internet, which is what the disappearing digital divide advocates. Clearly there are inequalities of Internet use and skill among those who have access to the Internet. To the contrary, there appears to be significant inequalities betweeen race and gender when assessing Internet users of an interactive and participative space like MyNews24. The persistence and growth model appears to apply in the case of the gender divide – there are more men than women participating, and this gap increased over time – while the emerging digital differentiation model seems to apply best in the racial divide, as there are indications that black men are in some ways more participative than their white counterparts. Despite socio-economic factors that would be expected to prevent black people from having as much Internet access as white people do, black men appear to be far more likely to participate as authors more frequently than white males. Black women appear to be doubly affected by both their gender and race. In line with earlier discussions on Internet access in the population as a whole – where evidence of all three models appear to apply in some ways to South African internet access – elements of both the persistence and growth and emerging digital differentiation model are evident here.

The differences between the numbers of articles written by authors and the authors themselves also demonstrate how readers and commentators can potentially be influenced by the perception of greater participation by one gender or race, when the reality is that a core group of users contribute the majority of content. Like with earlier discussions about how statistics on Internet access can be misleading, it has been demonstrated here that statistics on Internet participation can be interpreted and misinterpreted in many ways. The difference between numbers or articles and authors caused by authors who wrote frequently can also potentially contribute to the perception among readers that the space is more representative of South African society than it actually is. This is not necessarily endemic to South African Internet culture, but it does

demonstrate how the potential of the Internet to reduce inequalities can be subverted naturally and organically.

Based on the above discussion, as well as previous discussion on Internet access within the population as a whole, this thesis believes the emerging digital differentiation approach is the only theoretical model of the digital divide that can account for all the trends identified, as it does not implicitly disallow for signs of a disappearing digital divide or for some gaps to persist and grow. This model best describes the ebbs and flows evident in Internet access statistics in this thesis. Both the disappearing digital divide and the persistence and growth model have been shown to be too limited to explain nuances in South African Internet access.

Having established what inequalities are present among South African Internet users in general and among MyNews24 users in particular, this thesis feels it is important to determine how these inequalities – how the digital divide in general – may affect spaces where meaning and opinion is formed among online communities. Poor's (2005, online) definition of online public spheres describes them as places of discourse, often mediated; spaces which allow for new, previously excluded, discussants; places where issues discussed are often political in nature; and places where ideas are judged by their merit, not by the standing of the speaker. The evidence in this section that mediated discourse exists and that political issues are discussed tends to suggest MyNews24 is in many ways approaching an online public sphere. However there is less evidence to suggest new or previously excluded discussants are included (as there is still a discrepancy between gender and race groups) and that ideas are judged by merit and not by the standing of the speaker. There is certainly a case to be made for MyNews24 users being exposed to groups of South Africans they otherwise not encounter in the offline world – white and black South Africans, for example, may not often have political discussions with each other in offline spaces. There is also evidence that articles by certain race and gender groups are more likely to be read and commented on by other MyNews24 users, but it remains unclear as to how MyNews24 users react to ideas proposed by authors in the form of their commentary. A more qualitative

content analysis in the follow chapter around comments posted on these articles may help to shed light on this issue. It is expected it will also demonstrate how the digital divide – which has been proven to exist and which has been described in detail through an investigation into usage of MyNews24 – may be affecting this discourse. Explanations for these findings will also be offered.

Chapter 5:
MyNews24 and the public sphere

While an analysis of the user generated content contributors shows both the extent of the digital divide and South Africa as well as the development of this space as a possible online public sphere, an unexpected development (one that was perhaps not foreseen as a pivotal area of the MyNews24 experience) has been the popularity of the comments facility on the bottom of each MyNews24 article published – particularly by 2008. MyNews24 stories during this sample period were all published with an open comments facility, and with a fair but minimal degree of moderation before publication, News24 users could have their comments on an article or issue published. The result of this is another group of MyNews24 contributors (as opposed to authors and readers) – a group which it appears may behave as if they were participating in an online public sphere. The barrier to entry for "commentators" was very low – a user simply enters an e-mail address, name, subject line and message to be posted. Often users do not use their real name, nor do they even input a valid e-mail address. The only time that comments are rejected for publication is when they are rude, amount to hate speech of are defamatory in any way. Repetitive comments – often a reality, as many MyNews24 users share similar opinions – would also be kept to a minimum. In addition, as News24 is an English website, while non-English phrases would be allowed in comments, comments published entirely in a language other than English would not be allowed on the site. This is primarily due to a lack of resources to moderate comments in all eleven official languages.

Of course, prior to an analysis of the kinds of commentary sent in by commentators, it is also important to assess what kinds of barriers to entry there might be beyond the form and function of the comments facility itself. Several factors could contribute to a user's involvement with the comments facility and the content. Among the most pertinent to a study of a digital divide are the following:

- **Language barriers:** Users might feel uneasy posting in English, and therefore opt not to participate at all or users might not be able to communicate effectively in written English, increasing the chance that their comment would be blocked from publication due to incoherency or incomprehensibility.
- **Physical access barriers:** Users might have outdated software on their computers preventing the effective display or functioning of the comments facility or users may be used to not interacting with content due to the high cost of access and slow access speeds.
- **Motivational barriers:** Users may not be interested in opinionated, user-driven content on a website where they expect to encounter only news or users may not feel motivated enough by the topic of conversation to contribute their opinion.
- **Racial and cultural barriers:** Users may perceive the space to not reflect their opinions, and so feel their perspective is not welcome on the website.

For the purposes of this analysis, only published comments were considered for study, mainly because unpublished comments could never have influenced the discourse on each article, and so they could not have affected either positively or negatively the building of a public sphere on MyNews24. (Users have no way of communicating to each other outside of this comments facility as no contact information is published with comments.) Through an analysis of these comments, it will become clear that, while there are mini virtual or abstract public spheres created around each MyNews24 article (some more than others, of course), the power of this public sphere remains largely unrealised, as there is little to be gained from prolonged interaction with the comments facility, as users can never interact outside of this public sphere. Commentators appear to use the comments facility to reiterate their own opinion, and draw strength from others who post similar opinions. In addition, it will also be shown that there are two kinds of public spheres being built – a larger, general one around the MyNews24 website as a whole, and a smaller, fleeting public sphere generated on a per article basis. While the main participants (or perhaps they should be called protagonists) are often the

same, each discourse that forms a public sphere around each article only exists for as long as users are able to comment on articles. When a new article is published, the direction of the discourse is ultimately altered by the new topic under discussion. The final and most important element evident through an analysis of comments is that, as Wasserman (2002, 210-213) notes, the Internet is a potential and ideal space for "minority empowerment". In the case of MyNews24, is will be clear the online sphere of discussion that develops around the content at any given time is more a space for voices that do not represent the majority to find refuge, and it is used for contributors and commentators alike to reassert their opinions as dominant, and to respond in a dominant way to dissenting (in this case, majority) opinions from the relative comfort and safety of anonymity. Despite this, there is evidence among users that black South Africans (particularly male South Africans) had identified this space as one worth contesting by 2008.

5.1 MyNews24 Comments Content analysis

In an article called "A league of 'fikile' gentlemen" (Faber, 2007, online), News24 user Brandon Faber (the most prolific contributor in terms of content to MyNews24 during the 2007 period of analysis) slates the ANC Youth League's comments about the involvement of an Australian national in the coaching of the Springbok rugby team, just months before the Rugby World Cup (which South Africa would go on to win). The tone of the article is scathing ("Once again, we can count on the garrulous clowns from the ANCYL for our Monday morning amusement"), and concludes by saying that the ANCYL, and other entities, should not comment on matters they know nothing about. Commentators using MyNews24 would come out supporting and slamming the article, turning the debate that followed into one framed by racism (Addendum A, Section 1).

The comments following the article would degenerate into a slinging match between some of the participants, with one commenter even noting that it was expected this would happen. Insults ("a cow, pig or chicken with more intellect than these mamparras"; "this is so typical of you yellow boys") towards

commentators of a race presumed to be different to others would be traded, with the original writer eventually commenting on his own piece, asking for calmer heads to prevail. This request from the author does not eradicate the fact that the article itself sought to establish a dominant opinion on the website and within the ensuing virtual public sphere that belittled the ANCYL (playing on the name of its then President – Fikile Mbalula – to suggest the league was fickle and unintelligent). The comments that followed the article show how the majority of commentators agreed with the writer, and in many ways delighted in the fact that this opinion had come to the fore. Dissenting voices – that is, voices that did not agree with the original article – were quickly dealt with by other commentators. And the response from the author clearly indicates how the author felt he was in a more dominant position – not only because his opinion was in the majority but also because he had contributed the original piece – to stamp out opposing arguments as irrational or emotive. The original opinion was thus framed as rational and commonplace and any disagreement was discarded as emotive, racist and unusual. In the offline, however, it is reasonable to assume there would have been far more voices disagreeing with the original viewpoint than agreeing with it.

A similar thing would occur in an article called "Road rage up close" (van Rensburg, 2007), where a female News24 user detailed her experience of road rage just hours before. The comments that followed would all be on the subject of road rage, until the following exchange, with comments coming in before, during, and after, took place. A curious feature of these exchanges is the way in which the commentators and users, with no other method of moderating the comments themselves, would repost comments to commentators they had taken offence at, asking for them to stop posting comments about race. In the author's role as moderator, several comments about race were published, in a (possibly naïve) attempt to allow other commentators to hear more alternative opinions and views on the subject. But the regular commentators would quickly work to restore some order into the postings by replying directly to the commentators they had taken offence at, and one commenter would even call on the moderator (not knowing who this person was – only that there had to be someone moderating comments who

would see his post) to "single out those that keep doing this and stop publishing their quite frankly stupid responses as they are only stiring[sic] trouble with the others" (Addendum A, Section 2).

Of course, not all exchanges regarding race could be so easily handled. Where topics pertained much more closely to issues of race and political allegiances, comments would grow heated. In an article called "Move into these houses" (Molekwa, 2007), the writer would detail how an official newsletter posted on the South African Communist Party website called on the poor to invade houses. This in itself was an interesting development as the responses that followed clearly showed the average MyNews24 commenter did not usually read any publications on the SACP website. A series of comments, both in favour of the move and against it, followed, showing that in the case of some topics, more varied opinions were voiced. The majority of commentators still, however, indicated their disgust at the SACP posting and sought to normalise their opinion as dominant and correct through an online debate that would rage for several hours (Addendum A, Section 3).

These comments not only display the degree to which racial framing permeated the commentary on any number of topics, but also the way in which the commentary was hijacked to the point where commentators began commenting on comments, rather than on the original user generated article. This flaming, it should be suggested, has something to do with what could be described as the cultural trauma being felt by a number of South Africans. Alexander (2004) notes cultural trauma "occurs when members of a collectivity feel that they have been subjected to a horrendous event that leaves indelible marks upon their group consciousness, marking their memories forever and changing their future identity in fundamental and irrevocable ways" (1). It is perhaps easy to understand how black South Africans might display signs of cultural trauma through their comments, but it appears also that white South Africans too feel culturally traumatised as their comments display their anxiety at having their personal safety and security, as well as their social standing in society, placed under threat by the "regime

change" after 1994. This does not mean that all white users display inherent racism, or a desire to return to apartheid, but many articles and comments written by white contributors (who, while it cannot be empirically shown due to a lack of verifiable demographical data, most probably make up the dominant race group on MyNews24) display just as much anxiety and collective trauma as those written by black contributors. Language use such as "leave *our* sports alone" or "this is so typical of *you* yellow boys" shows how commentators appear to post comments on behalf of their race group, suggesting some sort of collective approach to participation in this forum.

While racially charged comments were perhaps the most common theme of commentary within MyNews24, there were also a number of other motivational factors behind the comments on MyNews24. An article called "Weed out the bad bloggers" (Roopnarain, 2007b) indicated not only the tension between those in favour of the MyNews24 experience and those against it, but also the degree to which some commentators were participating in the MyNews24 experience without being certain of its purpose. Curiously, the article called for a more moderate, and moderated, approach by "bloggers" in South Africa yet this came from one of the most prolific users during the sample period. Commentators were quick to pick up on this fact, but they also displayed a lack of education about Internet-related terms, with many commentators showing they did not actually know what a blog was, or that MyNews24 was intended to be a citizen journalism website (Addendum A, Section 4).

In the response to this piece, users would use the word blogs and bloggers to refer to MyNews24, but often, rather than attacking the merit of the sentiment, they would post messages directed at the "Editor", expressing their displeasure at the article. Here, it appears as if commentators were again finding refuge in their strength in numbers and attempt to normalise their opinions as correct and dominant, curiously also evoking their right to freedom of speech and expression to do so. The irony was certainly not lost that the author was using a space for user-generated content to call for limitations on the content published in spaces such as MyNews24 and blogs. In the

comments posted, the majority of commentators would reassert their rights to comment, and attack the author to such an extent that he would feel compelled to respond in a second article on the subject a few days later (Roopnarain, 2007a). He would write:

> At some point, surely, in a truly democratic environment, the distinction, albeit a blurred one, between hate speech and freedom of expression must be made?
>
> (ibid, online)

Clearly contributors and commentators were struggling to make sense of the diverse opinions published on MyNews24. In this article, and in later articles, some commentators would express unhappiness with the content of the (published) commentary on MyNews24. In an article called "Concerned over comments", a News24 user would address this very concern in a letter and commentators would express some unexpected insight into the commentary that had played out on MyNews24 thus far (Addendum A, Section 5). Commentators who responded made it clear they were aware their comments were moderated, and that in some way they were part of a "big brother" kind of experiment ("News24 likes these controversial articles. Increasing readership, like any news outlet, is their main goal."). The commentators on this article thus appear to step outside of their traditional roles as moderators of the forums own "dominant" discourses and show they are well aware of the "system" they are participating in. In fact, some seemed to regard MyNews24 quite positively – "Your opinion aired above, tells me something about you, and I am pleased to meet you. All the comments aired, tells us something about those who makes them" [sic] and "Media24 is one of the few news publishers that allow ANYONE to comment on the news, and I applaud them for that. People aren't FORCED to read the comments. I do find it quite liberating to have my say regarding current affairs and debate certain issues a bit. People like you who try and silence this sort free speech have NO place in society" [sic] (ibid).

Often articles on MyNews24 would result in consensus among commentators until such time that one comment would disagree with the opinion expressed in the article. Once this comment was published, commentators would respond to that comment, rather than the original author. In the comments that followed a satirical article on Zimbabwean President Robert Mugabe (Ntyintyane, 2008), MyNews24 commentators would begin by responding to the author but a comment posted in disagreement with the author, by a commentator known for his controversial postings, would derail the commentary (Addendum A, Section 6) with the result that further comments were a mixture of comments praising the author for his well-written piece and attacking the commentator for being an "idiot". There were thus two clear trends in this article – the author's idea appears to have been considered on merit, but as it represented a popular opinion among commentators, there was not much real debate on the issue. At the same time, a contrary opinion was met with disdain, and commentators did not attempt to engage the dissenting commentator on the issue, choosing rather to attack his intellect and leave sarcastic comments ("Well then Kolobe... go and live in Zimbabwe if it's so fabulous. Go on, I dare you." – Lauren). An article written by a South African living in the Netherlands (Ward, 2008) in support of ANC President Jacob Zuma would elicit a similar variety of commentary. Some commentators would appeal to the moderator over the publication of the article (Addendum A, Section 7) and use the fact that the letter originated from outside South Africa as a reason to discount its contents. Other commentators would remark at how the debate has occurred on MyNews24 before, and how there was no resolution in sight. Another commentator mentioned the poor spelling and grammar of commentators – with spelling and grammar errors in his/her comment as well. By 2008 there were also signs that commentators in particular were aware of the inequalities among MyNews24 users, and would appeal to editors to help correct by publishing more comments by pro-ANC commentators (Addendum A, Section 8). There were also signs that the space had been characterised as male-dominated when, following the reveal of one of MyNews24's more controversial commentators as a woman, there was considerable surprise (Addendum A, Section 9) by other commentators. Her commentary was deemed more outrageous because she was a woman

by some commentators, suggesting some commentators had claimed the space and the sometimes heated characteristics of debates as masculine.

There are a number of things that can be said about this possible online public sphere within MyNews24. Firstly, as has already been mentioned, access to publication on this sphere is limited editorially in terms of the content of the post, as well as the language it was written in. This of course means that only those users who can speak English and who posted what would be deemed editorially sound comments were allowed full participation in this public sphere. The moderated involvement thus meant that not all users were equal, nor could they be guaranteed continued interactivity with other users. Secondly, as commentators could remain anonymous, it is impossible to tell who was commenting, how often, and if people were commenting more than once, under different names, saying different things each time. This was due to a variety of factors, but most importantly because the technology has not yet been implemented across the News24 CMS to register users and effectively track their behaviour in real time.

If we were to return to the definition of an online public sphere as proposed by Poor (2005) (public spheres are places of discourse, often mediated; public spheres allow for new, previously excluded, discussants; issues discussed are often political in nature; and ideas are judged by their merit, not by the standing of the speaker), it is clear that at times the MyNews24 comments resembled a public sphere. It is not always the case though, as often commentators *were* excluded (and they are often excluded for the same reasons – for example, language – as they are from more traditional public spheres); not all issues discussed are political and not all ideas are judged on merit all the time, as indicated by the degree of flaming towards users and other commentators on MyNews24. This type of public sphere does not in any way lead to anything significant in the offline world – users might know each other, or recognise their names, but they have no way of knowing the identity of other commentators, or if a commenter going by one name is the same person every time. It is also clear that these online public spheres are contested places, with many commentators asking for others to leave, and

calling on the moderator to stop publishing comments. Many commentators appeared to draw courage from the fact that their contributions were posted anonymously, and often expressed dismay with other commentators for posting an opinion they disagreed with rather than debating the issue or opinion presented.

Through an analysis of some of these comments it is quite clear the digital divide influences who discusses and what is discussed within the "virtual public spheres" of MyNews24. Members of minorities of South African society appear in the majority in the online MyNews24 community, and during both periods of analysis it is evident that both authors and commentators would seek to enforce their opinions as dominant and normative, and to attack as illogical or uninformed both comments and commentators who presented differing opinions. Rather than engaging with the issues or facts presented in these debates, commentators quite often insulted each other, which wholly reduced the power of these debates as potential spaces for meaningful discourses. The average commenter appeared to use MyNews24 to reaffirm his or her own opinions – opinions that would most probably be in the minority in society at large and possibly deemed politically incorrect. In fact, it appears as if many commentators gain confidence in their beliefs, regardless of how politically incorrect or in the minority they may be, through prolonged interaction and debate within MyNews24. In isolation, this is not necessarily a bad trend, but given that there are no alternative public spheres for Internet users who ascribe to opposing opinions to participate in (certainly not on the scale and size of MyNews24), it is worrying. Woo-Young, in an analysis of South Korea's "non-gaek" websites (websites produced by "reformist online journalists involved in forming and leading public opinion") (2005, 393) proposes:

> [non-gaek] websites host highly partisan discourses which are reproduced and disseminated by a focused political agenda that aims at political reform. Such a method of conducting discourse has led to the dissimilitude of the alternative public sphere, resulting in the birth of a

> multiplicity of spheres that represent divergent political views.
>
> (Ibid)

Clearly there are very different factors motivating MyNews24 contributors and commentators and Ohmynews contributors and commentators. Scholars such as Littau (2007, online), who looks at the generation of social capital among users of a citizen journalism website, and Sutton (2006, online), Kim and Hamilton (2006, online), who both attempt to understand the motivations of Ohmynews users, indicate it is perhaps necessary to follow this study with a more detailed analysis of the user gratifications of MyNews24 users to further understand the differences and similarities between South African Internet users and, in this instance, South Korean Internet users. Han summarises the problems inherent to a public sphere around Ohmynews, and it is evident the same can be said to conclude an analysis of MyNews24:

> However, Ohmynews is an emerging public sphere only to some extent. As Habermas (1989) pointed out, a public sphere should be guaranteed by the potential qualities of agency, self-reflection, critical judgment, the capacity for rational discussion, and moral capacity. In other words, the quality of debates and participants' moral capacity affect the existence of the public sphere. Although there were discussions in Ohmynews, the question of the debate's quality remained unanswered. Like many Websites, problems caused by online anonymity exist in Ohmynews. It was not difficult to find virtual harassment and insult in the discussion boards. Irresponsible arguments and false information were used to direct a discussion to an unproductive conclusion.
>
> (2007, conference paper)

The trend that occurs within MyNews24 during the sample period is not necessarily unique to South Africa, but a lack of similar popular spaces for

alternative opinions to the dominant voices on MyNews24 is entirely endemic to digitally divided societies. Unlike in South Korea (were Ohmynews, the leading citizen journalism website is also identified as one such "non-gaek" website), South Africa does not have a large enough Internet community to warrant more websites for more public spheres to develop, or for such public spheres to become as popular as MyNews24. To return to Pejout's analysis of possible public spheres on the Internet through the rhetorical promotion of ICTs by the South African government, Pejout concludes:

> South African *netizens* can indeed communicate their o*pinion* but it does not mean they have an *influence* on the decision-making process.... South Africans experience *inter-activity* with the government (they give their opinion) but they do not have a true *inter-action* with it (the technical conditions settled for the session prevent them from engaging in a real and dialectical debate).
>
> (Original emphasis, 2004, 192)

It is quite evident that this is exactly what is occurring within MyNews24's virtual public spheres, and while they do not appear to conform to Habermas' original definition of a public sphere, but do conform to Poor's later adaptation of the public sphere to include virtual spaces, there is limited benefit to these public spheres, particularly in offline public life. Of course there are other spaces on News24 and the Internet as a whole where South Africans participate in the public sphere, and given that this public sphere has developed around user-generated content, the argument can be made that this public sphere (or spheres) is far less moderate or tempered due to the fact that the content was not written by professionals. Commentators may feel more inclined to argue with authors and other commentators as the space is more theirs than News24's (the traditional top-down, one-to-many approach to media production and consumption does not apply to the workflow of MyNews24). This may work to MyNews24s detriment, but it may also ensure more honest and open exchanges within these spheres.

5.2 Conclusion

The hypothesis under consideration here is that South African Internet users are part of an underdeveloped culture of Internet users and that those who use the Internet for socio-political interactive discourses use it more as an outlet for emotional and opinionated exchanges than for the creation of a genuine public sphere that fosters democracy. The analysis shows MyNews24 has not developed into a true citizen journalism website (although examples of citizen journalism can be found), but rather a space for interaction and (often fierce) debate among users. Also, the emergence of citizen journalism within a digitally divided culture like South Africa produces an interesting irony: through the attempts of media producers like News24 to "democratise" mainstream media by including the "media disenfranchised" (i.e. members of society who would otherwise not have had access to the means of media production), it is also entrenching its methods of production within a digitally divided society (through the editing of content before publication and the moderation of comments before approval) – a wholly undemocratic trend. The conclusion here is that citizen journalism in its true form can only work in societies where Internet penetration is high enough such that there is a wide enough pool of potential users/citizen journalists so as not to affect the quality and quantity of citizen journalism on offer.

Technological limitations on the part of MyNews24 (as a direct result, it is suggested, of the digital divide) prevent a more comprehensive study of this citizen journalism and those who interact with it – even on the country's biggest and most popular news website – from taking place. Still, it is evident that there are a number of factors at play limiting not only access to MyNews24, but also participation with the product and others who use it. This exemplifies the initial hypothesis that, at all turns, South African Internet users would be at a disadvantage in comparison to international Internet users, even when looking at Internet users who could be presumed to be Internet savvy, interested and educated. It is clear a number of both offline and online factors, both present and past, and both economic and cultural, affect the continued growth of an online Internet culture in South Africa. These

limitations affect all aspects of the growth of a truly online South Africa, and it is wholly evident that even when online, South Africans struggle to move forward by participating in a public sphere that could lead to significant change for South African society, even when presented with as many tools as is technologically possible to do so.

Chapter 6:
Conclusion and suggestions for further research

This thesis has investigated Internet access in South Africa using a variety of methods. It has interrogated statistics on Internet access in South Africa from a global through to a local and hyper-local perspective according to existing research and theory on the digital divide. The results of this research indicate that findings do not neatly conform to any one of the potential digital divide models that have been proposed in academic literature thus far. Given that little literature on the digital divide in South Africa could be found, this thesis has tried to collate and interrogate information on Internet access in South Africa from a variety of sources.

The research undertaken by this thesis has demonstrated how, since 2002, growth in Internet access in South Africa has been relatively slow, and as such Internet access is still limited to a small percentage of the population. Growth does not appear to have been homogenous during this time period, as there is evidence that existing users increased their frequency of access more often than non-Internet users accessing the Internet for the first time. This means that from 2002 to 2008, the "average South African Internet user" moved from moderate Internet access to frequent Internet access. This is most probably due to the introduction of broadband Internet access to South Africa during this time period. Internet users who could afford to, and who had the motivation to do so, were moving from dial-up connections to broadband connections, and thus there was considerable growth in frequent Internet users.

An investigation into how Internet access in South Africa correlates with individuals' socio-economic means has revealed that the majority of growth in Internet access from 2002-2008 has been limited to the more affluent sections of the South African population. Statistics on internet access among lower LSMs has been deemed too unreliable to interrogate, but this thesis' analysis of Internet access among higher LSMs suggest the most affluent South

Africans make up the majority of Internet users in general, but that there was a gradual shift in this majority by 2008, which suggests that lower LSMs may start to catch up in the years to come. Findings did not demonstrate that LSMs directly determined an individual's likelihood of being online, and the similar trend of rapid growth among LSM 6 – 10 of frequent Internet users suggests that there is not a neat explanation for what is happening in South Africa. Research which demonstrates how geographical location, site of Internet access and home language also determine an individual's likelihood of being online shows that it is not always factors specific to an individual's financial status which determines Internet access either.

This research into Internet access statistics demonstrated how elements of three out of the four proposed models of digital divides which have been used in existing academic research apply in the case of South Africa. Internet access in general is increasing, which suggests a disappearing digital divide, but the slow growth in Internet access from 2002-2008 is impossible to ignore. The general disparity between Internet access among low and high LSMs suggests a persistence and growth model, but the shifts in Internet access within higher LSMs demonstrates that these two features do not directly correlate. In addition, it is difficult to explain how both the disappearing digital divide model and persistence and growth model can be said to apply in tandem. The emerging digital differentiation model seems to best fit, as it allows for a combination of factors specific to each individual to determine why they have Internet access. A combination of factors such as LSMs, home language, place of work, place of residence and many more may be what determines an individual's likelihood of being online.

These digital divides models do not only apply when determining whether Internet access is present, but also try to explain what people are doing online once they gain access. Using MyNews24 as a case study, this thesis has demonstrated how there is a gender and race divide among MyNews24 contributors and that this influences what subjects are read and debated by MyNews24 readers. The low number of female participants is in keeping with findings of research from other parts of the world; however the closing divide

between white and black MyNews24 contributors suggests that some progress has being made in South Africa. Despite this, by 2008 white male MyNews24 contributors were still by far in the majority when it came to online interaction and participation, with women of all races being considerably underrepresented. This suggests that much work still needs to be done to make the South African community online match the demographics of the South African population at large.

Through this research into MyNews24 contributors, the three digital divide models which have previously been tested on Internet access statistics can be tested on Internet user behaviour. The growth in MyNews24 contributions among black Internet users suggests in some way a disappearing digital divide, but as this model purports homogenous Internet use among Internet users once physical access barriers have been overcome, this model appears entirely inadequate and overly rigid. Similarly, the growing gap between men and women may prove the persistence and growth model – as it has been demonstrated it other parts of the world – but this would then fail to explain the previously mentioned growth in MyNews24 contributions by black Internet users. Thus the emerging digital differentiation model appears best equipped again to explain the findings here, as it suggests a combination of factors which can help or hinder an individual's likelihood of accessing the Internet. This relational approach, as opposed to methodological individualism, explains how race can be less of a determining factor than gender when it comes to participation on MyNews24.

Finally, MyNews24 has been evaluated as a potential site of an online public sphere. It has been shown that, using Poor's model of online public spheres, it does adhere to many of the requirements: it features moderated discourse, discourse is often political in nature, it allows for previously excluded participants and issues are judged on merit rather than on the standing of the speaker. A content analysis of some of the comments on articles written on MyNews24 suggests that it MyNews24 is approaching an online public sphere, but demonstrates how the digital divide is preventing it from matching Poor's requirements completely. The space appears to be open to previously

excluded participants – women, for example – but for some reason, this does not appear to be happening. The same can be said for different race groups, although to a lesser extent. Thus even though MyNews24 presents equal footing for all participants as an opportunity, this is not realised by Internet users. This demonstrates how the digital divide is affecting the formation of an online public sphere – the digital divide is in effect preventing the potential of the Internet to level the social playing fields from taking place. Similarly, ideas proposed are sometimes not judged on their merits either, as a commentator or author's race can result in him or her being unfairly attacked by a group of commentators who are in disagreement with them. Thus the strength in numbers a group of MyNews24 commentators and contributors (who would otherwise be in the minority in the population at large) often results in uncivilised debate. This would perhaps not be the case where the population better represented online.

These findings have resulted from research into the digital divide in South Africa which has only scratched the surface. Further research into the motivations and gratifications of South African Internet users may help to better determine why there are inequalities among Internet users from South Africa. Research should also be undertaken to assess the motivations and gratifications of people who have Internet access over a period of time, this so that the effects of changes in Internet affordability and availability can be more closely monitored within the population. If anything, this thesis indicated that much more research is needed in the field of digital divide study in general, and in the case of South African Internet access specifically, so that scholars can be better informed of how the Internet is being used - or not used - from a South African context. An additional component to research into South African Internet access lies with cellphones and cellphone Internet access. Similarly, the recent popularity of social networking sites such as Facebook among South African Internet users should also be interrogated further

This thesis has demonstrated that South Africa has a long way to go before the majority of its citizens are online. The concern is that, as the rest of the world increases its interaction online, and as Internet users in general become

more skilled and comfortable using the Internet, the gap that South African non-users need to bridge is becoming wider and wider. This thesis has demonstrated how a digital divide exists in South Africa and how it has consequences for how South African online spaces of interaction are represented to the world. The digital divide has thus been tracked from its most global and impersonal state to its most local and personal by this thesis, and it is evident that much more needs to be done to better understand the problems facing South Africa as it becomes part of the network society.

Addendum A

Section 1

http://www.news24.com/News24/MyNews24/Your_story/0,,2-2127-2128_2172001,00.html

"BRILLIANT ARTICLE! The ANCYL is well known for making poepols of themselves. Rugby, cricket, politics, and so on.They are middle aged black men with inferiority complexes toward whites, that is the only reason why they would interfere with our sport, street names etc.what a joke.When the aliens come to collect specimens for probing, they surely would skip the ANC/GOVERNMENT EMPLOYEES and rather probe a cow,pig or chicken with more intelect than these mamparras." - Tank

"Well written! Expect some slashes to comment." – ElectroMan

"This is so typical of you yellow boys. As well writte as the article maybe, it is still hard toignore the staunch of racism with in the comments made. Sad. I hope U guys win.... I loved the Springbocks, but since u peolple are saying" why don't they leave our team alone?" I have!" – PBR

"TANK you sum up the mentality of the writer. Your sport!!!!!! Your Streets!!!!!!!! I am now convinced Whites in this country believe Rugby belongs solely to them." – Svan

"Calm down and stick to the topic my man. The game belongs to everyone. What I am questioning is the timing and the intent of the ANCYL's objections. SURELY we want our team to do well and utilize any resources required to win. The question has nothing to do with race, it has to do with

intent. Off your horse now Svan, let's stick to the issue at hand." – Brandon

Section 2
http://www.news24.com/News24/MyNews24/Your_story/0,,2-2127-2128_2164725,00.html

"epolpe have lost all humanity.the old bakkie driver was avoiding a dog.the young cowboy shouldnt have been following so close anyhow.wonder if any of you have seen how people on the fast lane drive,at high speeds yet they are bumper to bumper on to the car in front of them its crazy.no wonder so many people are afraid to drive on south african roads,who would want to drive with so many crazies around behind steering wheels.i think white folks often find themselves on the guilty side of road rage" – *blacque*

"Balcque your comment "i think white folks often find themselves on the guilty side of road rage" is the kind of mentality that fuels more violence and hatred in our society!. The topic of disscusion is ROAD RAGE! not RACE RAGE! What exactly was the point in bringing up the race card other than to evoke an angry response from people? You can choose to either be part of the problem or part of the solution. No point being a problematic solution!" - *Daryl Naidoo*

"For goodness sake please STOP turning every topic into a race issue - we are all South Africans! To the moderators of these forums please single out those that keep doing this and stop publishing their quite frankly stupid responses as they are only stiring trouble with the others. And I mean both black and white racists - there is no place for you here or anywhere else for that matter." – *Antman*

"Black White yellow blue ... does it matter what colour u are, we are all guilty, even myself. i got into a scuffle with a taxi driver & knocked his lights out, in hindsight it was the dumbest thing to do, he could have had a gun, or his taxi friends may have jumped in. eversince then i tried hard to keep calm, its the best way out... Dianne well done to you." - *skarr..*

Section 3

http://www.news24.com/News24/MyNews24/Your_story/0,,2-2127-2128_2172634,00.html

A brilliant display of cerebral might! I can't afford a home anyway so I guess I will take a home that has a for sale sign! Awesome!! It doesn't matter if the person has been transferred and had to sell in a hurry, I will just TAKE it. Maybe the Young Communists will also PAY MY RATES AND TAXES? You didn't think of that Comrades! What about the revenue needed by municipalities to provide sanitation, amenities to the poor? Where will the money come from? All lunatics – *XP*

"Not too long ago I was a student and I had very very intelligent black dudes whom I counted as friends and potential leaders in this country one day. Yet we sit with buffoons like this - where are all the guys I studied with that had the lofty ideals, the nous and the ambition to take this country forward? Side-lined, bought out? Or just not prepared to get involved in this circus and taint themselves? Or are they simply not street smart enough to fight against the dirtier of our politians?" – *Johno*

"I live in an informal settlement. Moving into these houses in the Suburbs would be a brilliant and great idea. I think we are going to vote for Fikile and Buti for the next president of our Country. we are now seeing some improvement with the ANCYL. We need to oust Mbeki and get Zuma to pull the strings. We have nothing...and we have nothing to lose." – *Jabu*

Why not just take over the MP's houses when parliament is not in session and then move to their second residence when they go back to parliament ? Oh sorry I forgot... it's white houses they want. – *Robert*

"sello u a very stupid, buti didn't mean what u a saying i think he meant that the gorvernment should spead up dilivery,idiot like u and your white m3 and rocky didn't understand what he was saying. to you guys who think youth is under 20yrs you need to go back school, fikile and buti are still youth and will be until they reach 40yrs. if your house stay with a for sale stick for so long it means your prices are not reasonable and you are living a luxary life somewhere." – *C*

Section 4

http://www.news24.com/News24/MyNews24/Your_story/0,,2-2127-2128_2167991,00.html

"Does freedom of speech mean anything to you? I don't believe there should be any measures put in place to control what people want to write. If you don't like what they say and how they say it, then DON'T READ IT! There are other people besides you who might want to know what others perspective on issues are, especially when it concerns them. Exactly what are you doing different when writing an article degrading bloggers who speak their mind." – *Nyx*

"self righteous hypocrite.you probably fall into this category of bloggers thinking this article of yours,with looked up fancy words,which you probably don`t understand,will get you a columnist deal with news24." – *fatman*

"You have just blown my hair back - and you dare to call the rest of "us" bad bloggers. My Momma taught me if you can't say something nice then don't say it at all!" - *pepe cousins*

"Weed out the bad bloggers... You first Rivaan..." – *JAWS*

"It's not just the bloggers - just read the popo sent in to this forum by some of the regular contributors. How on earth can you build an intelligent argument on the foundations of offence and obscenity? Does the constitution give anyone the right to demean and destroy the dignity of others? While freedom of speech should be respected, society needs to be protected from those who advance a sick misanthropy in the name of exercising their rights. Haven't they heard of Ubuntu?" - *Grootbek.*

Section 5

http://www.news24.com/News24/MyNews24/Letters/0,,2-2127-2129_2160558,00.html

"The comments ARE just like the Jerry Springer show, you dont have to read them if you dont want to and if you dont read them, News24 would soon drop them.I like them because they give a look in to what other people's views are but just like a fat person on Springer they look fatter and more grotesque than the person intended.I dont think ANS or M3 wonder the streets in a racial hatred,axe murdering frenzy they're just blowing off some steam on state of affairs of a country they both love" – *me*

"Your opinion aired above, tells me something about you, and I am pleased to meet you. All the comments aired, tells us something about those who makes them. Whether it is just friends around a Braai on strangers in a pub, lets hear it. It gives all perspective on one anothers thoughts. Keep in mind that some columnists are writing to get a response, and many

including me, participate happily, being serious at times and also provoking. Chill a bit and enjoy the witty and the idiots. Its fun." - *Devil's Advocate*

"Really, Scott. Sometimes the reactions to articles are a bit over the top but I believe it serves a massively important purpose. This way we actually get to see in some form of media how the masses actually feel. The sad thing is that most of us seem to feel trapped in the "Us vs Them" syndrome you mention. Jon Qwelane's articles are the most revealing in my opinion. Hopefully not too far into the future the "usses" and "thems" will become the "we's." News24 can help get us there." – *niels*

"media24 is one of the few news publishers that allow ANYONE to comment on the news, and I applaud them for that. People aren't FORCED to read the comments. I do find it quite liberating to have my say regarding current affairs and debate certain issues a bit. People like you who try and silence this sort free speech have NO place in society!" – *Juan*

"The comments on this site, regardless of the topic often seem to deteriorate into some or other kind of racism, name-calling etc etc... Anonymity breeds contempt it seems" – *Notso*

"Media sensationalism finally reaches the man on the street and if he takes offense from a racist article he can influence the outcome of crimes that we see today in SA. If this person expresses hatred to others because he/she was subjected to some form of hostility or prejudism, that same hatred is expressed to others and it goes on and on until it reaches someone who can do something about it. This is why, we have such violent crimes in SA now." – *LuvsFun*

"News24 likes these controversial articles. Increasing readership, like any news outlet, is their main goal. Controversial articles can do it. News24's approval is evident in that they continue to publish opinion pieces that incite racial aggression. This isn't Jon Qwelane's first article to cause harm. Go read the one where he talks about blood donations. Long term consequences? News24 isn't interested in helping, they're interested in growing as a news organisation." - *Concerned reader*

"It's leaning towards the whole black/white thing already!! Nice one Scott. I find the terrible spelling and shocking grammar more infuriating than the comments some days, how can you try make a serious comment when you can't even spell or structure your sentences correctly! I'm no walking dictionary, but at least try use proper english." - *Dylan Hunt*

Section 6

http://www.news24.com/News24/MyNews24/Your_story/0,,2-2127-2128_2349348,00.html

"BRAVO!!!" - *DeMoerin"*

"Brilliant - it is a pity we dont see much of this kind of political sattire in mainstream media, but what do you expect with a state controlled national broadcaster and racial cleansing in most newspapers...the country is worse off for the lack of it.. "- *JFK*

"Well written and well said Lucas! Cannot agree with you more." - *William*

"Best article I read in my life! We need more people like you. If you stand for president you will have my vote 100% because your reasoning is brilliant." - *Joe*

"When the western imperialists involve themselves in the African agenda then that is always the results, the European interferences in the affairs of Africans is highly acceptable, the western colonial imperialists believe that they should control and own the African agenda as if we are this slaves, the dictation of choice of leaders for the African people when the west involve themselves is cleared influencing the peace and harboring the majority of the unrest in this continent, all of the African dictatorship were born as a direct result of the colonial struggle which seeks to enslave the sons of the African continent, why and why cant the colonialists leave Africans?african the land of birth? - *Kolobe*

"It's 2008 for God's sake, get over the 'enslaving the sons of Africa' rubbish. Western countries belive it or not have an interest also in not seeing people starve to death and try and assist. Who else is going to care? You? Please.." - *AJ*

"You are really dumb and ignorant at times. Mugabe and his forces caused the dictatorship in Zim - not any western force. The original western nominee for president was BISHOP ABEL MUZOREWA. Why did we accept western sanctions to speed up freedeom and transition in SA if it is so unacceptable? Until Africa provides an African solution to an African problem, the Africans must accept all the outside assistance as they can get." - *Filemon*

"Kolobe, listen carefully. You point to past injustices to justify current ones. YOU DON'T HAVE TO TAKE SIDES. I think you jump to the defence of any black man simply because you feel stung by the criticism levelled against him because you are black too. Africa has wonderful potential. But black people need to stop defending the indefensible and taking sides just because of skin color. Hacking off someone's limbs is wrong, whether the

year is 1808 or 2008. Colonialism was wrong. But so is Mugabe!" - *wit koos*

Section 7

http://www.news24.com/News24/MyNews24/Letters/0,,2-2127-2129_2369672,00.html

"News 24 I believe people who ran away from SA firstly has no say in the country , nevermind have their letter posted. Talking about abusing tax money for selfish needs ??? Your are a fool , that is exactly why this court case is on because people lik JZ uses tax money for self gain. Wake up you are just as stupid as JZ and he's followers !!" - *Charlie*

"I'm so proud of you putting Netherlands underneath your name. Now please do us a favour by keeping your opinion there as well. Francois's point was that people that are getting paid by the taxpayer, is not in office because of JZ's trail. He did NOT crucify or judge JZ. Explain to the hungry children next to our roads or to today's crime victims that they are not priority while the trail is on, ...o sorry I suppose you can't because you are not in SA." - *Piesang*

"Your arguments regarding JZ trial & how the Taxpayers money is used to run its cause has now come to its level of exhaustion.You lot have been bashing Jz without gathering some important facts to support ya hatred!!The man is going to court & no judge has found him guilty of anything thus far(The Con court ruling is to blame for ya lack site in this issue). Stop treating the man as if he has killed someone !!" - *Les-Maada*

"Tuffy has every reason to mock Lucky for his spelling and grammer. Most of these comments have spelling errors etc. but we look really stupid to other countries! Its as if this nation is becoming dumberer..." - *cvz*

Section 8

http://www.news24.com/News24/MyNews24/Your_story/0,,2-2127-2128_2374531,00.html

"Has news24 been turned into campaing platform for those who are opposed to the ANC? Majority of those who support the ANC don't have access to such things and it is not fair because the responses that a posted are one sided, it is only fair to give few of us who can defend the ANC the platform to do so. Point blank's emails are always printed why?" - *Paul Montele*

Section 9

http://www.news24.com/News24/MyNews24/Your_story/0,,2-2127-2128_2382693,00.html

OMG a woman? Can still understand a man following the ANC so blindly and resolutely, but a woman? Did the hatred you carry blind you completely to the communist drivel. You are an individual and as such can say NO, I do not agree. BUT this means everybody around you also has that right - democracy gave us that! Age might also bring you some wisdom, that respect is earned and is not a right. - *MJS*

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