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The Digital Identities of Southern African Academics

What role does technological habitus play in the formation of academics' digital identities with regard to teaching and learning? A comparison between the National University of Lesotho and the University of the Witwatersrand.

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Abstract

The purpose of this study was to discover how technological habitus affects the formation of digital identities (DIds) of Southern African academics as well as how this affects the integration of digital technologies (DTs) in teaching and learning. Through administered questionnaires and semi-structured interviews, data was collected from academics at the University of the Witwatersrand and the National University of Lesotho. The study uses Bourdieu's theory of habitus and the concept of field, as well as literature in the fields of Education and Sociology in this discovery. It was found out in the study that different categories of habitus do have an influence in the formation of the digital identities of academics, and that this affects ways in which academics integrate DTs in their teaching and learning. The categories of habitus included; age, social class, DTs literacy as well as educational background. The study concluded that among other things, ways in which academics were taught, as well as times in which they studied have had much of a negative influence in their attitudes toward DTs as well as their value in the field of education. The study also found out that because of these negative attitudes towards use of DTs in education, most academics do not see a need for any form of training in DTs, and this resulted from a way of life in which they were born and educated.

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Dedication

This work is dedicated to my parents – Mme ‘Mabokang and Ntate Thabo Sekhohola. Mom and Dad, thank you so much for being the first people to ever believe in me. You had big dreams for me even before I could have any for myself. You helped me realize my dreams and I live everyday knowing that I am blessed to have parents like you both. I know you are very proud of me, and I love you so much☺.

Declaration

I declare that this research report is my own unaided work. It is submitted for the degree of Masters in Education at the University of the Witwatersrand, in Johannesburg. It has not been submitted before for any degree or examination at any other university.

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(Name of candidate)

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(Signature)

15th day of February 2013

Abbreviations

Cell – Cellular
CNS – Computer and Network Services
DIds – Digital Identities
DTs – Digital Technologies
EIT – Educational Information Technology
ICTs – Information Communication Technologies
Ms – Microsoft
SA – South Africa
SADC – Southern African Development Community
SMSes – Short Message Services
The NUL – The National University of Lesotho
TV – Television
USAASA – Universal Service and Access Agency of South Africa
Wits – University of the Witwatersrand
WSoE – Wits School of Education

KEY WORDS

Technological habitus, habitus, field, digital technologies, digital identities, social capital, economic capital, cultural capital

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DEFINITIONS within the context of this research:

Technological habitus: It is in the late modernity that researchers such as Czerniewicz & Brown (2010) use the term to refer to ways in which people's habitus affects their use and/or rejection of digital technologies.

Habitus: "the habitus is a set of dispositions, reflexes and forms of behaviour people acquire through acting in society. It reflects the different positions people have in society, for example, whether they are brought up in a middle-class environment or in a working-class suburb. It is part of how society produces itself", (Bourdieu, 2000: 19).

Field: "a structured social space with its own rules, schemes of domination, legitimate opinions..." (Bourdieu, 1977, p. 89).

Digital Technologies: electronic technology that generates, stores, and processes data. They include computers, laptops, cellular phones and more

Digital Identities: Ways in which individuals perceive themselves with regard to their use of digital technologies

Cultural Capital: Exists in three forms; in the embodied state – in the form of long-lasting dispositions of the mind and body; In the objectified state – in the form of cultural goods (pictures, books, dictionaries, instruments, machines, DTs); and In the intellectual state – in the form of academic qualifications.

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Chapter 1

1. Introduction

There is a shift in sociological structures in the 21st century towards the use of Digital Technologies (DTs). This results from globalisation, whereby basic economic, political as well socio-cultural activities are done through the Internet and the World Wide Web. Now more than ever before, countries of the world are struggling to embrace the use of DTs. However, the extent to which African countries are embracing this movement, especially in the field of education, is very little. This could result from conditions that are found in those countries. Literature in Educational Information Technology (EIT) (Prensky 2001; Palfrey 2008; Albniri 2007; and others) claims that socio-cultural backgrounds affect and influence ways in which people use DTs. This being so, it would mean that people who come from less privileged or disadvantaged backgrounds use and identify with DTs much less than those from more privileged or advantaged backgrounds. This results mostly from what Prensky (2001) calls digital divide (DD) which often goes hand in hand with the other divides along gender, racial, location, language and poverty lines that are prevalent in many underdeveloped countries, mostly in Southern African countries, Lesotho and South Africa (SA) in which the study was conducted. These inequalities often shape individuals' choices towards life in general, and in most cases, people who are victims of any of these inequalities do not have as much choice in life as those who are not affected by them. These conditions (to a larger extent) may also affect the type of DTs individuals choose and/or can afford to have and use in the digital era.

This report is a study of digital identities (DIds) of Southern African academics and ways in which habitus affects academics' use of digital technologies (DTs) in their teaching and learning at the National University of Lesotho (the NUL) and the University of the

Witwatersrand (Wits). The study looks at how academics in these institutions use DTs to carry out their daily activities including; work, home and elsewhere, and the role played by different aspects of habitus including socio-cultural background in shaping those identities. This is done by using Pierre Bourdieu's theory of habitus, which goes hand in hand with the concept of field as the main theoretical framework. However, some of Bourdieu's concepts and terminologies such as cultural, social, economic as well as intellectual *capitals* also bring to light some main issues in the study and therefore will be used.

Pierre Bourdieu developed a theory of action around the concept of habitus, which has exerted a considerable influence in the social sciences. The report seeks to discover how academics as social agents participating in the field of education adapt their already existing habitus and the habitus of the field of education to include the use and understanding of DTs as a new form of social order.

Even though Bourdieu came up with the concept of habitus, he did not come up with the term 'technological habitus'. It is in the late modernity that researchers such as Czerniewicz & Brown (2010) use the term to refer to ways in which people's habitus affects their use and/or rejection of digital technologies. This report seeks to understand how technological habitus influences or shapes academics' digital identities.

The two universities used in this study have two rather different backgrounds as the University of the Witwatersrand is much more urban, developed and advantaged in most ways as opposed to the NUL which has a rural, underdeveloped and mostly disadvantaged background. These differing backgrounds include; location, availability of resources, technological infrastructure as well as levels of DTs literacy. To borrow Bourdieu's

terminologies one would expect that Wits has more advantaged and developed social, cultural, economic and intellectual *capitals*, which may be expected to influence their dispositions than those of the NUL. These dispositions would include their tastes in art, music, education (intellectual capital), and of course the kind DTs that members in each university chooses to use, what they use them for, as well as how they use them.

The main question in this report is; "*how does technological habitus affect the formation of academics' digital identities (DIds) as well as ways in which they integrate digital technologies in teaching and learning?"* To answer the question in the study, the report first answers these subordinate questions as categories of habitus;

- *What are the digital identities of academics at the National University of Lesotho and the University of the Witwatersrand?*
    - *What is the level of computer literacy in both universities?*
    - *Which digital technologies do academics prefer to use in both universities and why?*
    - *Which applications do academics use and why?*

- *What role does habitus (socio-cultural backgrounds) play in shaping the digital identities of academics in both universities?*
    - *What are educational levels of academics in each university?*
    - *What are the socio-cultural backgrounds of academics in each university?*
    - *How do these backgrounds affect or influence the choices of digital technologies academics use?*
    - *How do these backgrounds affect ways in which academics conduct teaching and learning?*

These questions are explained in more detail on Chapter 3.4. Below are brief histories of the two universities, both taken mostly from the websites of the universities.

A brief history – Wits

According to the Wits website, Wits has a reputation built on research and academic excellence. It is claimed to be one of only two universities in Africa ranked in two separate international rankings as a leading institution in the world, and that it is the only university in SA that features in the top 1% in the world in seven defined fields of research according to the 2007 ISI international rankings. Right from this description, one already gets a sense of how privileged the university is, and already, it could be expected that the availability of necessary resources such as computers and other digital technologies is not a problem in this institution. The Wits School of Education (WSoE) for instance, has seven computer labs including; postgraduate and undergraduate labs. Here learners have access to uninterrupted Internet connectivity where they search for resources for their studies, as well as exploring electronic articles, research and books from the library. The library also has few computers used for searching available materials as well as their locations in the library. In addition, there are different points of wireless connections where learners and staff members are able to connect their devices to the Internet without necessarily having to go to any of the computer labs for access. The labs are also used to host courses such as Educational Information Communication Technologies. There are also facilities in lecture rooms which allow academics and learners to use DTs such as PowerPoint, visuals and clickers in teaching and learning. This university is situated within capitalist societies whose standards of living are fairly high, and are within a fast growing economy. The university is said to always striving to be in the same pace as these standards and the economy, locally and internationally.

From this background, the first assumption would be that having all these resources at their disposal, both the learners and the academics in this institution are able to learn and teach in the best ways possible as these resources are claimed to enhance teaching and learning , as well as living according to today's demands. This assumption is made mainly because the use and/or rejection of DTs in teaching and learning is often reduced to the access factor; the idea being that if the necessary resources are available, and people have been trained (formally and/or informally), then they will definitely use them in teaching and learning, as well as in their daily activities. However, the use and/or rejection of DTs in education as well as in other settings always goes deeper than just the issue of access as there are other underlying factors which affect the use and/or rejection, which include people's socio-cultural backgrounds, which can be understood by using Bourdieu's theory of habitus. These are dealt with later in the report.

A brief history – the NUL

Like SA, Lesotho is one of SADC countries. It is situated and surrounded by South African borders. It has ten districts, the capital of which is Maseru. Just like any other country, it has areas that are very developed, as well as some that are far less developed and very much underprivileged, the latter being in very high percentages as compared to South Africa. Even though the country was a British colony until 1966, it is now a democratic and kingdom ruled country under the Kingdom of King Letsie the III. According to the NUL website, the origins of the NUL go back to April 8, 1945, when a Catholic University College was founded at Roma by the Roman Catholic Hierarchy of Southern Africa. It is stated in the website that the establishment of this College was a realisation of a decision taken in 1938 by the Synod of Catholic Bishops in South Africa to provide African Catholic students with post-

matriculation and religious guidance. The Catholic University College was founded in an isolated valley 34 kilometres from Maseru (capital country of Lesotho) in a temporary primary school building at Roma Mission. In 1946 the College moved from the temporary building to the present site and is now called the NUL. Compared to Wits, the NUL is situated within very rural areas and communities. The community here has suffered the consequences of the above mentioned inequalities the most. It is characterised by illiteracy, poverty, and other inequalities. Even those who make it to school are still surrounded by the community with these characteristics, which can be better understood by the use of Bourdieu's theory of habitus. These conditions also play part in the choices that academics make regarding use and/or rejection of DTs as will be discussed later in the report.

The NUL has only one computer lab, which is mostly used for an introductory course to computers for all 1st Year learners. The course is designed to introduce learners to basic applications in a computer such as Microsoft Word, keyboard, Excel, which are mostly web 1.0 applications. The duration of the course is normally six months after which learners are said to have learned and developed basic skills for computer use. This is as far as training for computer use goes for all learners in the university except for those doing Computer Science. Apart from this, there are computers in one section in the library, which are used for information and research by learners. Another section in the library has about three computers which are used solely for searching for books in the library. There are also computers in staff offices, which their use will be discussed later in the report.

From this, one would say that perhaps there is not much of the difference in the availability of the hardware in both universities except for in numbers. However, the computer/student ratio

is very high as there are many more learners than computers as compared to Wits. This poses a problem of learners having to queue and wait for each other whenever they need to use computers, as opposed to those at Wits which has a lot more computers. One would also assume from the onset that perhaps there might be differences in use given the differences in locations and/or backgrounds. The purpose of this report is to look into these differences and finding out if and/or how they affect academics' use and/or rejection of DTs in teaching and learning as demanded by the new social order. The following section of the report looks deeply into the theoretical framework used in the study.

Overview

First the report the report looks at Bourdieu's concepts of habitus, field and discusses why they are being used as the main framework in the study. This also includes the definition of other terminologies used to understand habitus such as; cultural, social, intellectual, as well as economic *capitals*. The study also looks at the emergence of a new habitus in the digital era and how this creates tension between the old and the new habitus. It also looks at the emergence of technological habitus as a term used for studying people's experiences with technology in the digital era.

Secondly, the report looks at the available literature on the use of digital technologies by academics in higher education and challenges faced by academics due to the emergence of the new social order. The study uses studies conducted in other countries to contextualize the problem. To achieve this, first the study looks at the socio-cultural background, embodied, objectified, and intellectual capital as forms of habitus, as well as how these affect and have been affected by academics' use of digital technologies according to the literature. Secondly,

the study looks at globalisation as the form of the new emerging habitus and how it has affected the already established habitus and ways in which academics use and/or reject digital technologies. Among things that need to change because of the new social order is education and how it is delivered. The third part of the literature review looks at education; how it is operated based on the already established dispositions, how these affect academics' acquisition of the new dispositions that include the use of digital technologies in education, as well as ways forward according to the literature. Finally the report looks at literature on digital identities of academics and how they have been affected by the above considerations in the literature. To do this, the study uses the literature on the studies previously made in other countries on digital identities of academics, technological habitus as well as how academics view themselves with regard to their use of digital technologies.

The last parts of the report looks at the formulation of research questions and how they were formulated based on the literature review. To answer the main question; *What role does technological habitus play in the formation of digital identities of academics with regard teaching and learning?* the study first answers questions about; academics' socio-cultural backgrounds including age, gender, schooling, class, academic achievements, as well as experiences in using digital technologies, beliefs and so on. This would mean academics' life histories in general. To achieve this the study uses a mixed method approach where questionnaires were sent to 30 academics in each institution, after which 12 academics who best represent all the above socio-cultural aspects were interviewed in semi-structured interviews. Because the main aim of the interviews was to understand different factors in each academic's life that may have affected their technological habitus, the interviews were conducted in a biographical manner. These were recorded and notes were taken. Based on the findings, it was concluded in the study that different aspects do have an impact on academics'

technological habitus and so affecting their digital identities. Among other factors, ways in which academics were taught when in school stoop out as the main aspect that mostly shaped academics' digital identities with regard to teaching and learning.

Background - Theoretical Framework Articulated

According to Bourdieu (2000), "the habitus is a set of dispositions, reflexes and forms of behaviour people acquire through acting in society. It reflects the different positions people have in society, for example, whether they are brought up in a middle-class environment or in a working-class suburb. It is part of how society produces itself", (p, 19). The field is defined as "a structured social space with its own rules, schemes of domination, legitimate opinions..." (Bourdieu, 1977, p. 89). Fields are said to be relatively autonomous from the wider social space, in which people relate and struggle through a complex of connected social relations, both direct and indirect. These concepts are relevant in understanding academics' use and/or rejection of DTs as it will be shown later in the study. Included in the field (though not limited to) are; arts, education, politics, law and sciences. However, the report focuses much on EIT and DTs.

In his earlier writings, Bourdieu (1974 & 1977), argues that the conditions in which agents find themselves within a certain field constitute a habitus. While acting in their different fields, be it Education, Artistry, Science, or any other field, agents develop certain rules by which their field is constituted. Education as a field therefore, is operated by certain rules and perceptions developed over time, they have become part and definition of what this field

entails by those operating within it. In most cases, these rules and modes of operation make it difficult and even impossible for agents to accept introduction of something new, which in this case is the use and understanding of DTs in the field of education.

The theory of habitus has been, and continues to be used by researchers (King, 2000; Jenkins, 2002; in Mills et al, 2007; Nash, 1990; in Mills et al; Czerniewicz & Brown 2010) to understand the social structures that are found in any field today, especially in education. There is consciousness towards the use of DTs in education as a new social order due to the demands of globalization. This would mean that there is a need for agents to develop new dispositions, new habitus that would incorporate the use of DTs as a way of life today. Societies have gone through a lot of transitions since the agrarian age. The world as a whole has moved from peasantry to industrialisation, and now we live in a digital age. In all these ages, the changes affected all the important aspects of life around which agents had already acquired particular habitus and had developed dispositions towards; the political, the economic, the socio-cultural, as well as the individual. All these factors have had implications for education, teaching and learning in particular. In his synthetic essay on the body in *Pascalian Meditations*, Bourdieu argues that the habitus - restores to the agent a generating, unifying, constructing, classifying power...investing in its practice socially constructed organizing principles that are acquired in the course of a situated and dated social experience (1997 & 2000).

Habitus provides the connection between agents and practices through systems of dispositions, which are bodily incorporations of social history. It provides predispositions towards and capacities for practice for agents which are transposable to different contexts. Like practice, habitus is an open concept that, in its most general applications, indicates the

socially developed capacity to act appropriately (Burkitt, 2002). It is a socio-genetic concept in the sense that it does not specify which parts of the body or mind are generative of particular practices, just that it is that which allows an agent or group of agents to produce a practice. However, the concept of habitus does not imply that all practices are generated in an irrational manner, or without conscious thought, but that agents are differently positioned to be reflexive about their practice, and in the process of producing many practices, wholly rational choices are not possible.

As social structures change, so do our habitus as individuals. In the digital/technological era, it is expected that academics would have to possess technological habitus (Zerniewicz & Brown 2010). This refers to the extent to which people have appropriated themselves with the use of technology. According to Czerniewicz & Brown (2010), 'technology as objectified capital means nothing on its own…" (p, 864). This would mean that in order to utilize technology, other forms of capital are also important. Goodie (2010) uses the term 'technology identity' which he argues that it is built by learning more about technology with the guidance of more knowledgeable users. Goodie goes on to say that understanding one's technology identity includes; beliefs about ones' own technology abilities, beliefs about the importance of technology, beliefs about participation opportunities and constraints that exist, as well as one's sense of motivation to learn more about technology (p, 502). It is this appropriation, understanding of one's beliefs about one's abilities, capabilities with regard to digital technologies, as well as other factors of habitus, which will shape the digital identities.

The idea that people acquire DIds has to do with ways in which they use DTs on a daily basis to carry out personal, business, work, play, socialize, and other activities. This will have much to do with their habitus as it will shape whatever dispositions they have towards DTs.

In any university context, it is important to understand the DIds of academics since most of them (academics) were not born into the digital age, and yet they have to learn, adapt and understand DTs in complex ways in order for education to keep up with the new era. Additionally, ways in which academics interact with DTs will influence and reflect on ways in which they use them in their delivery of instruction.

In studies made in other countries (Lewis et al, 2013; Bain et al, 2006), it was concluded that some of the reasons why academics find it difficult to employ digital technologies were because of their beliefs about self as well as teaching and learning where digital technologies were concerned. Despite the fact that these conclusions were reached based on studies conducted in countries where this study is not based, there is a chance that they might still prevail even in Southern African countries where these study is based. Bourdieu (1977) asserts this in saying that the degree to which social origin affects people's preferences surpasses both educational and economic capital. Even 'at equivalent levels of educational capital, social origin remains an influential factor in determining agents' dispositions' (1977 p. 88). The problem here is that if there is a divide among societies in technology use based on factors such as age, there is probably a gap between academics and learners as today's learners go to universities with high hopes of interacting with technology due to its high usage among their generation, only to find that it is not being used. It is therefore important to understand how academics use DTs in higher education, with the hope that this would help address some of the problems facing education today.

Chapter 2

2. Literature Review

2.1. Introduction

Bourdieu's theory of habitus brings to light the structures that are found within different societies today, especially the inequalities within societies. The use of his theory of habitus and the concept of field brings much understanding of this study in explaining the differing DIds of Southern African academics. The other literature used in the study focuses on globalization, education, as well as digital identities, and it also addresses some of the issues that Bourdieu addresses with his theory of habitus.

Literature in the EIT argues that the use of ICTs in schools can help overcome the most challenging problems facing Africa and most developing countries. There are many issues regarding Education, but the study focuses much on the socio-cultural inequalities and inequity as the main source of the persisting problems. Most of the available literature does not necessarily come up with ways in which the issues regarding the reluctance towards integration of DTs in the field of education could be addressed. Since this study was intended to establish the DIs of Southern African academics as part of a broader understanding of what needs to be done in order for ICTs to be deployed effectively in Education, this section of the report focuses more on;

- Socio-cultural cultural background/habitus; the part it plays in the formation of digital identities
- Globalization; what it is, why it is necessary to be part of it, how it is affected by habitus, as well as how countries can benefit from being part of it
- Education; how it needs to be restructured in ways that it meets the demands of globalization
- Digital identities; how digital identities are formed, particularly in relation to globalization,

education and socio-cultural inequalities in the digital era.

2.2. Socio-cultural Background

Literature in the fields of Sociology and education shows that in any society, regardless of its location, there is always some form of socio-cultural inequality, some communities far worse off than others (Bernstein, 2003; Jansen, 2004; Bourdieu, 1976, 1993; Christie; 1996). This affects some of the most crucial aspects of life such as the cultural, the political, the social, and the individual (under which mainly falls education). It is claimed to be the result of unequal distribution of resources among and within communities. Although this study focuses more on education in relation with technological habitus and the formation of DIds, other aspects are equally important and will also be addressed.

According to Bourdieu (1993, p, 12), "...there exist, within the social world itself and not only within symbolic systems..., objective structures independent of the consciousness and will of agents, which are capable of guiding and constraining their practices or their representations". These are structures that are found within communities, and people are so used to them that they automatically know where in these structures they belong. They act, think and perceive themselves within the parameters of these structures, and Bourdieu refers to this as habitus. Bourdieu further argues that societies are divided according to people's places in the social structures, and that those with common attributes fall under the same class; upper, middle or lower/working class; "...we can compare social space to a geographic space within which regions are divided up. But this space is constructed in such a way that the closer the agents, groups or institutions which are situated within this space , the more common properties they have; and the more distant the fewer" (Bourdieu, 1993 p. 16). This would mean that academics in each university would have the same attributes that were long

constructed based on the habitus of each university as field of education and how they perceive teaching and learning as a practice. This would also be influenced by the habitus of communities in which each field is based. These attributes would also affect ways in which academics in each university view the integration of DTs in teaching and learning.

The same thing also happens in the digital/networked societies; through the use of DTs and the Internet, people with same attributes form communities and networks, this could be seen in social networks such as Facebook and Twitter, Skype, MySpace, LinkedIn and more, and they become part of the networks, you do not just join in, you have to be part and parcel of networked society in order to stay in this community, and those who do not, get switched-off (Castells, 1999).

It is in these networks that people construct and manipulate their identities (Palfrey, 2008) to be the way they want to be perceived by other members of the same 'community'. It is important therefore, to understand the digital identities of academics as a social group, as this will reflect on their proficiency, efficiency and competency, as well as how they use DTs in teaching and learning. This is much more important because of ways of living today; we live in the capitalist world whereby the use and understanding of digital technologies is much more important than ever before. Almost everything that matters is done online these days, from shopping to political campaigns. The now two-time United States of America's President Obama gathered so much support through his online campaign not so long ago for instance, and, through platforms such as OLX, Gumtree, Kalahari.com, and Amazon.com, one can shop for anything from used furniture to baby diapers delivered to their door steps. This would mean that there is urgency for social structures to change as the way of living in the digital era calls for a much deeper understanding of DTs. These are just a few examples of

what those who are not part of the information society are missing out on, so the gap widens between the 'haves and have not's. The formation of these hierarchies and inequalities does not only happen within and among societies, but it also goes into the field of Education. As a result, we face educational systems that only benefit those who are privileged in terms of Bourdieu's *capitals*, while those who are less fortunate are left behind. We therefore continue to reproduce members of societies who are not able to be part of new ways of living, hence the reproduction of the inequalities.

The dynamics of the socio-cultural background/habitus may be understood more clearly through the use of Bourdieu's exploration of what he calls 'cultural capital' (1982), which according to him is more inclined with the concept of habitus. He argues that cultural capital can exist in three forms;

- In the embodied state – in the form of long-lasting dispositions of the mind and body;
- In the objectified state – in the form of cultural goods (pictures, books, dictionaries, instruments, machines, DTs); and
- In the intellectual state – in the form of academic qualifications.

2.2.1. *The embodied state of cultural capital*

According to Bourdieu, this state of cultural capital is linked to the body and presupposes the embodiment; "most of the properties of cultural capital can be deduced to the fact that, in its fundamental state, it is linked to the body and presupposes the embodiment" (1982, p. 48). Bourdieu goes on to state that the accumulation of this capital is in the form of what is called culture, cultivation, presupposes the embodiment, incorporation, which insofar as it implies the labour of inculcation and assimilation. This according to him, costs time invested in it, and that it cannot be at second hand, it has to be acquired first hand. This form of capital

includes all the values and norms that one learns from childhood, including how they walk, talk, and smile, as well as how they poise themselves in different situations, and so on.

Bourdieu argues that this embodied capital, external wealth converted into an integral part of the person, into a habitus, cannot be transmitted instantaneously (unlike money, property rights, or even titles of nobility) by gift or bequest, purchase or exchange. In addition, this capital can be acquired, to a varying extent, depending on the period, the society and the social class, in the absence of any deliberate inculcation, and therefore quite unconsciously. The embodied state of cultural capital could be seen in ways that people use DTs in the digital era. For instance, there is difference in use among people depending on the amount of time they have been interacting with digital technologies, as well as the kind of communities that surround them (Czerniewicz et 2010). It could be expected that in higher education, institutions that are in more developed and much more of capitalist societies, would have the embodied cultural capital that is different from those that are not. This embodied capital would mostly result from time spent using the DTs. They become more prominent in their use and as we have seen, this capital is acquired over a long period of time.

The embodied cultural capital with regard to the use of DTs could also be seen among young people of today (Prensky, 2005); due to constant use of digital technologies, they are more familiar with them than most adults. Wherever you go, you see youth on their phones, using their BBMs, typing a message for them is like second nature, working keyboards on their computers puts most adults to misery. This is because since they were born in this kind of culture, they have been doing it for so long that it is embodied in them. This could also intimidate most educators when working with DTs; they know that their learners know so much about DTs that, because it is in their habitus that ‘a teacher knows everything’, they are

afraid to use DTs because these learners might see their lack of proficiency as weakness. This would mean that the frequent use of the DTs has made their use part of the youth's culture, it is embodied in them, it is in their heads, in their minds, in their hands, they do not even think about it, they are able to walk while they are reading and texting, and it is their way of living, a quality which most academics lack. One cannot transfer this embodiment to another person; for anyone to possess this ability, they have to invest enough time in learning how to do so. This would mean that for academics to have this kind of culture in their embodiment, they need to spend more time acquiring it, the luxury which most teachers do not have due to their over demanding jobs. The next section looks at the objectified state of cultural capital.

2.2.2. *The Objectified State of cultural capital*

The objectified state of cultural capital according to Bourdieu (1982) has a number of properties which are defined only in the relationship with cultural capital in its embodied form. He argues; "the cultural capital objectified in material objects and media such as writings, paintings, monuments, instruments, etc., is transmitted in its materiality" (p, 52). Unlike the embodied cultural capital, ownership of objectified capital can be transmitted from one person to another in the form of material goods. However, if for instance, the material goods are being transmitted by someone who has the embodied cultural capital which is different from that of someone to whom the material goods are being transmitted; it is highly likely that those goods will be of no value at all. If we take a work of art for instance; because the original owner had a certain embodied cultural capital, he has learned to have an eye for art, the appreciation of the work of art, he knows a good piece of painting when he sees one. If this piece is transmitted to someone who does not have the same dispositions about artistry, the picture is going to mean nothing, it will be useless. Simply because he cannot tell the contrasts of the colours used in the painting, or the right angles from which he needs to stand

in order to admire the painting in a certain way. He has not invested enough amount of time in acquiring the same dispositions as the original owner. He does not have ‘a feel for the game’. This is asserted by Bourdieu in saying;

> It follows that the owner of the means of production must find a way of appropriating either the embodied capital which is the precondition of specific appropriation or the services of the holders of this capital. To possess the machines, he only needs economic capital; to appropriate them and use them in accordance with their specific purpose (defined by the cultural capital, of scientific or technical type, incorporated in them) he must have access to embodied cultural capital, either in person or by proxy (Bourdieu, 1982, p. 50).

This could be the case with the imposition of computers to schools by different governments and governing bodies with a hope that teachers and learners will finally learn how to use and appreciate their value as much as the global economists do. It could also explain why it is that the effective use of these machines is very slow. The stakeholders do possess the embodied cultural capital regarding DTs; it is those in possession of this capital regarding the use of DTs who are running their businesses in a globalised economy fashion, but because they employ people who are not necessarily in possession of the same capital as them, they are the ones in the lead to ensure that computers for instance, are used, and that people are educated on how to use them. This is done with the intension that in the end, depending on time spent or invested in this education, those employed will be able to interact with these machines and increase productivity.

This is more evident in cases of initiatives such as Gauteng Online (GoL); even though the computers have been provided to educators and schools as objects, they are not able to appreciate and use them to the same value as those who possess the embodied cultural capital. They do not possess the habitus that is explained as external wealth converted into an

integral part of their being, the embodied cultural capital. To them (educators), these computers are not of much value because they possess the embodied cultural capital about teaching and learning that does not involve the use of DTs in it. The field of education has allowed them to embody ways in which teaching and learning is conducted (teacher-directed methods), and this creates a tension because the globalised economy demands them to use these machines yet they do not have the knowledge to do so. In order for them to use the machines appropriately, they need to possess the same embodiment of cultural capital as the globalised economists, or enlist the services of someone who does. For this to happen, they need to be educated in this way. This brings us to Bourdieu's last form of cultural capital; the intellectual state.

2.2.3. *The Intellectual State of cultural capital*

Intellectual cultural capital is much linked to education because it is defined in the form of school qualification. Bourdieu (1982) argues that the objectification of cultural capital in the form of academic qualifications is one way of neutralizing some of the properties it derives from the fact that, being embodied, it has the same biological limits as its bearer. This is one of the issues that Bourdieu has shown much concern about when talking about inequalities and difference in performance in education among the privileged and the less privileged. For marginalized groups, the cultural capital of their families, ways in which they see and experience the world, is not highly valued in schools or at least by the schooling system in general (Mills et al, 2007). For many of these students, access to dominant forms of cultural capital is frequently limited to time at schools. We know that exposure to the educative effects of the cultural capital of dominant groups is necessary for success at school (Bourdieu, 1997 in Mills et al, 2007).

Paradoxically, those who are most in need of time in school to accumulate the dominant cultural capital, as they are less likely to acquire it from their homes and communities are also those who are least likely to be free from the urgency of economic necessities. The reality is that time in school is a luxury and/or an irrelevance for many poor, ethnic minority students. Often, the privileged 'perform' better than the less privileged due to the fact that school curriculums teach and reward the privileged culture. It is argued that the academic qualification, a certificate of cultural competence which confers on its holder a conventional, constant, legally guaranteed value with respect to culture, social alchemy produces a form of cultural capital which has a relative autonomy vis-à-vis its bearer and even vis-à-vis the cultural capital he effectively possesses at a given moment in time (Bourdieu, 1982).

This is asserted by Bourdieu in saying;

> …because the material and symbolic profits which the academic qualification guarantees also depend on its scarcity, the investments made (in time and effort) may turn out to be less profitable than was anticipated when they were made (there having been a *de facto* change in the conversion rate between academic capital and economic capital). The strategies for converting economic capital, which are among the short-term factors of the schooling explosion and the inflation of qualifications, are governed by changes in the structure of the chances of profit offered by the different types of capital (Bourdieu, 1982, p. 58).

Focusing on DTs, the intellectual state of cultural capital serves the purpose of helping those who do not possess the embodied cultural capital possessed by those in the globalised economy. In order for educators to be able to use DTs in ways that are consequential to education, they need this kind of capital, to learn and acquire dispositions that are positive towards the integration that will make it possible for them to be able to convert this external wealth (computers) into an integral part of their being. So, even though they (educators) do

possess DTs (mainly computers) in the form of objectified cultural capital, because of other circumstances surrounding their upbringing and educational background, they have already developed dispositions about teaching and learning that do not include the integration of DTs. Therefore, they need to be educated in such a way that they will acquire the embodied cultural capital that revolves around the use of DTs in education. Academics in higher education may possess different embodied cultural capitals with regard to the use and appreciation of DTs, which will depend on where they come from. This would mean that some of them would need a longer period acquiring the intellectual cultural capital.

To sum up, the embodied cultural capital is acquired from childhood, and unlike the objectified state on cultural capital, it cannot be transferred from one person to another in the form of objects. Even though the objectified cultural capital can be transferred from one person to another in the form of objects, in order for one to continue using these objects, one needs to have the same embodied cultural capital as the original owner of those objects, or have the services of someone who does. This could be attained through the investment of time and effort spent in schooling; the institutionalized cultural capital. Most academics do not possess the embodied cultural capital that is needed in order for the effective and efficient integration of DTs to take place in education. Therefore, even if they could have possession of computers as a form of objectified cultural capital, they need to be trained and educated in order for them to acquire the institutionalized cultural capital as the only way of appropriating themselves with the same culture that is needed in the digital economy.

2.2.4. The Social Background

The process of acquiring the cultural capitals; embodied, objectified and institutionalized

involves other people too as these cultures are not acquired in isolation. There are people in the same circles who will have the same attributes or dispositions including the way they talk, walk, and dress, their appreciation of art, and their choice of machines and so on; this is the social aspect. This could be explained more clearly in terms of what Bourdieu calls the social capital. According to Bourdieu (1982), the social capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition, which provides each of its members with the backing of the collectively owned capital, a 'credential' which entitles them to credit, in the various senses of the word.

People who are within the same circles tend to have the same habitus. The problem with this is the same as the one with the other forms of capital. If one has more fortunate forms of culture, one becomes friends and/or acquaintances with people who also have the same forms of culture as theirs; therefore one will have a more fortunate social capital. One becomes friends with people who make the rules and laws of 'the game', based on the same forms of culture as theirs. One forms the kinds of networks within the same circles. If on the other hand one has less fortunate forms of cultural capital, one becomes friends and/or acquaintances with people with the same less fortunate forms of cultural capital. The problem is; this kind of people do not make the rules on issues that matter such as the curriculum for instance, or the kind of governance one would prefers, or the kind of clothing that is 'acceptable'. They barely survive the education system as it teaches the more fortunate's cultures. They therefore have more chances of success because what they are being taught in school is the same as how they live at home. They get better grades and have better chances of being recognized in the competitive labour markets, they walk, sit and talk 'properly' in the already 'arranged' interviews. This is due to the value of their social capital, whereas the

less fortunate, even though they do have acquaintances and friends in their circles, they are of no use in the work place, they have no voice, they cannot be used by their friends as connections to get a certain job, or get into a certain school and so on. Bourdieu (1982) argues that the volume of the social capital possessed by a given agent depends on the size of the network of connections he can effectively mobilize and on the volume of the capital (economic, cultural or symbolic) possessed in his own right by each of those to whom he is connected.

This could even be clearly seen in the world of globalization. Through the use of the Internet and digital technologies, people across the world are able to form connections and networks with people with the same attributes as theirs. People are able to become acquaintances with those with the same business interests as they do for instance, or the same interest in music, or art. They are able to communicate and share ideas, regardless of where they are in the world, thus expanding their social circles. If we take LinkedIn for instance, professionals get to connect with one another across the world, they share ideas, participate in debates, and in the process, they are growing, professionally and otherwise. Where does this leave those who have not yet caught on with technology, or who refuse to use them because of the early acquired dispositions about life?

Depending on the habitus of the field of education, and that of the social circles in which academics find themselves, they will either use or reject DTs. This makes it highly possible that DIds of academics in each institution would be much more similar. The field in which they participate has allowed them as a society to acquire these dispositions towards DTs and teaching and learning. All these changes in socio-cultural structures have resulted from globalisation which has become a way of living today. The following section of the report

looks closely at globalisation as the main reason for a need for changes in socio-cultural structures.

2.3. Globalization

There is a global shift in ways of production as societies strive to be part of global economy. This shift affects the socio-cultural, the economic, the political, as well as the individual as it calls for changes in the ordinary ways of living in order to accommodate it. This is due to the fact that unlike in the industrial society, globalized economy and society entail the production of information and services rather than tons of materials as it was in the industrial society. In this economy, information technology is vital to the society, and as the economy is global, through the Internet and the interconnectedness of the networks, countries are (or should be) able to communicate, participate and compete economically with the rest of the world.

Lelliott, Pendlebury and Enslin (2000) define globalization as the process by which societies are connected through rapid, large-scale networks of political, social and economic interaction (p. 41). Based on this, it is evident that there is a new habitus that could affect or be affected by the old habitus. While the old habitus revolves around industrialization, the new habitus revolves around globalization. Globalisation could be seen as a new habitus because it is a way of living today and affects the ordinary socio-cultural as well as economic structures, and involves the use of DTs. This would mean that those who are said to be thriving in the new economy, depending on the length of time they have spent using DTs, would have embodied cultural capital which revolves around the use of DTs unlike those who are not part of this economy. In most cases, it is those in developed areas of the world who have this kind of capital, and it normally goes hand in hand with the objectified, as well as

institutionalized cultural capitals. These capitals enable them to have a better understanding of the digital world, as well as effective and efficient ways of using them. As a result, this increases their productivity, as well as the bottom line; which is accumulation what Bourdieu calls economic capital.

Economic capital according to Bourdieu (1982) amounts to a number and value of resources one has, be it art, cash and so on. The amount of economic capital one has equals the amount of power and influence one has in societies. This is being brought up in this part of the report because it is those who have this kind of capital as well as other capitals who are more interested and thriving in globalization. They understand the importance of not being left behind in world economies as they have a desire to accumulate more. It is in their habitus to transform, to leave a legacy. Through the use of DTs, they are able to research on good deals on the global markets and make large amounts of profits.

For those who do not possess this kind of capital however, sometimes this ends up in exploitation in a form of good deals. This could be seen in deals and mergers between developed and less developed countries where companies from developed countries sign deals with the ones in less developed countries to work together; while it seems as a good deal to an engineer in a less developed country to work on cars for a big company based in a developed country, it is even a better deal for the big company because they do not pay as high salaries for labour as they would if they were to hire someone from the same developed country as theirs. It is through the use of DTs that global deals such as these are possible. This is due to the fact that in those (developed) countries, the habitus possessed by agents allows for them to use DTs in meaningful ways that are consequential to the demands of globalisation.

However, as is always the case in any form of new economy (or anything new for that matter), there are still a lot of countries in which people are lagging behind. Because of their habitus, they are still stuck in the industrial era, which makes it hard for them to incorporate the use of digital technologies. Even those who try, there is always a tension between the old habitus and this emerging habitus, which results in ineffective and incompetent usage of these technologies. According to Bourdieu (1977) "habitus produces practices that tend to reproduce the regularities immanent in the objective conditions of the production of their generative principle, while adjusting to the demands inscribed as objective potentialities in the situation, as defined by the cognitive and motivating structures making up the habitus" (p. 78).

During the time when industrialization was the way of living in the 1980s, those who did not possess embodied cultural capital were institutionalized in order for them to be able to use the machines (objectified state of cultural capital) used for production. Education as a field had its own habitus upon which agents participating in it have acquired dispositions about how teaching and learning should be operated and those dispositions were developed within the parameters of industrialization. It is because of these dispositions that it is hard for agents to move from industrial education to global education, which is in line with ways of living in the digital era. Agents possess the potentiality or capacity to act in species appropriate ways by virtue of being in a state or possessing a disposition by virtue of which they are enabled to act in such a way, (Bourdieu, 1977).

If for so long agents have been enabled (by their habitus and that (habitus) of the field) to function in the world where production was based mostly on hard labour and heavy

machinery, it is not surprising according to the theory of habitus and the concept of field that it will take some time for them to be functional in the new economy. Nash (1999) argues that Bourdieu's habitus is a system of durable dispositions inculcated by objective structural conditions, and that because it is embodied; the habitus develops a history and generates its practices for some period of time, even after the original material conditions which gave rise to have disappeared. The 'objective structural conditions' are changing towards the use of DTs due to the demands of globalisation, but even long after the old structural conditions of production (industrialization) have disappeared, they will still be embodied, and therefore very hard to get rid of.

It is therefore important to understand the DIds of academics as this will provide comprehension of how they use DTs in their teaching and learning, as well as how this has been affected by their habitus and that of the field of education. One of the major benefits of using and understanding DTs is that they could help bridge gaps/differences within communities in the world such as the concept of the digital divide that exists within countries, nations as well as in any setting within communities. Digital divide has been explained as the divide between those who have access to DTs and those who do not. It is "the perceived gap between those who have access to the latest DTs and those who do not", Compaine (2001, p. xi). Apparently, there is no way of measuring or knowing how big or small this gap is, but it does exist, and governments are trying all sorts of efforts to close it. Whether this gap will ever be completely closed, is unknown. The point here is that, it is those in possession of economic capital who are thriving in the globalized economy, which in turn, brings back the issue of inequalities that have prevailed since the agrarian age. Because it is those who have economic capital (resulting from many issues in the past including unequal distribution of resources) who are in possession of skills and understanding of digital technologies who are

thriving in global economy, the rich get richer as they have the 'feel for the game', whereas the poor get poorer or are left behind.

In order to participate effectively in the globalized economy, countries need to put strategies together, that will make this movement a success. According to Bertot (2003) the successful integration of digital technologies will include;

> 1) Technology - having access to computers and the internet.
>
> 2) Telecommunications - access to broadband telecommunications services.
>
> 3) Economic - technology and telecommunications infrastructure is linked to the economic development.
>
> 4) Information Access - a right of all living in a democratic society.
>
> 5) Information Literacy - knowing how to use technology, locate and retrieve useful information, evaluate and assess the relevance of the information, synthesize the information in order to solve societal information problems (Bertot, 2003, p. 186).

Most of the time the habitus as a concept, is criticized for not allowing any form of change (King, 2000; Jenkins, 1982; in Kings, 2000; Jenkins, 2002; in Mills et al, 2007; Nash, 1990; in Mills et al,). However, in this report, that lack of allowance for change provided by habitus is seen as the strength of the theory; it explains why there is so much reluctance in agents' will to use DTs. It is not the intention in this report to go deep into the debates of whether critics are right or wrong, but it is important to emphasize that through education, a lot of things can change, even the learned/acquired embodied structures. One thing is clear though; competency, skill and knowledge are vital in the globalised economy. It is for these reasons that there is a need for highly skilled labour that will be able to perform, cope and compete in this economy. Agents need be socialized in ways that will enable them to participate effectively in the global economy.

One way of making sure that some of the demands of globalization including the effective use of digital technologies in higher education is for countries to invest in human capital, which means educating young and old people to be able to participate in the global economy. The following section looks at education as a field, and the role played by the rules governing it in shaping academics' DIds.

2.4. Education

It has been established throughout the report that people develop a habitus; through learned or acquired dispositions over time, and that these dispositions may hinder or make possible their transition from one change to another, the use of DTs included. In the previous section of the report, it has been argued that there is a need for countries to be part of globalisation. This on its own marks the emergence of a new habitus, and as a result, there are tensions between the old and new habitus as habitus is resistant to change. It has also been argued that people need to move from, or be able to incorporate in their old habitus new one which will enable them to participate in the global/digital economy. It was also argued that one of the only ways in which these long-learned behaviours may be changed is through the education system (acquisition of the institutionalized cultural capital). This section looks at ways in which this is possible.

Benson et al, (2002) argue that the process of teaching and learning is social, and that technology does not determine learning outcomes; "rather, they are shaped by the choices that faculty, students, and others make about objectives, content and pedagogy that give meaning to and constrain those choices" (p. 141). These choices would be made based on the

habitus of those making them, as well as that of the field of education and what they perceive as a good practice. However, there is also a strong individual dimension to the consideration of education as a field, including its role in formation of DIds. However, in order for DTs to be effective in the field of education, individuals that are familiar with how to use them to the best advantage are needed.

According to Kozma (2008), schools are expected to train the work force of the future, prepare a citizenry for active participation in the democratic process, preserve and enrich the cultural environment, develop the full potential of each student, provide opportunity for individual advancement, produce some level of social integration and equity across the population, and create a society that can address some of the most pressing issues of our time, such as persistent poverty, HIV/AIDs, food security, energy shortage, global warming, and environmental degradation. In this explanation of what is expected of education, Kozma explores most, if not all the challenges that schools, education and societies in Southern Africa and some other parts of the world are facing today. It is through education that all these could be addressed. If these issues could be addressed, especially by education, societies could benefit a lot from that solution. Kirkwood (2009) argues that academics in higher education need to re-assess their teaching and assessment practices to better understand the impact they have upon students' experiences of learning, (p, 118).

In addition, it is claimed that the use of DTs could be a long-awaited solution to the prevailing challenges facing education in less developed countries such as lack of educational resources and not well-trained teachers (Lerner & Tirole, 2002; Liang, 2004). This is because through the use of facilities such as Open Educational Resources, which are much more affordable and accessible (even though there are debates about the extent of this accessibility)

to the public domain, teachers can access materials written by other more knowledgeable and experienced teachers, adapt them to the needs of their own learners and use them for the development of their own teaching (Lerner & Tirole, 2002; Liang, 2004). This could also reach out to schools situated in less fortunate communities, which cannot afford to fill their libraries with contemporary books and study materials, which are much more expensive.

However, this could be difficult to achieve if academics and/or teachers do not have sufficient knowledge and understanding of how to find and process useful information, and this has to do with how acquainted they are with DTs, which will be determined by what technologies they use, as well as why and how they use them, which is their digital identity.

In this context, sufficient knowledge and understanding of the use of DTs goes deeper than meets the eye; being in countries where most schools still cannot afford the tools (such as computers) for each learner, would mean that the teacher would have to have an understanding of how to utilize a few available resources so that each learner would benefit from them. This needs a very deep understanding on the side of the academic, which will ultimately come down to their familiarity and understanding of DTs, which can be found out through the study of individual's digital identity. To assert this, Ehrmann (cited in Benson et al, 2002) argues that major improvements in learning are likely to occur when we use DTs in ways "that enable significant change in who can learn, what they learn and/or what they do when learning" (p. 141). What we need to know therefore, is how and why DIds contribute to and/or hinder the deployment of DTs in teaching and learning, as well as the role played by habitus in shaping those identities.

From what we have seen earlier about the theory of habitus, one could argue that academics

(as well as other educators), have learned and acquired dispositions that allow them to function in teaching according to the demands of industrialization for so long, they have the habitus that allows them to do so. The rules of the field of education have been established according to those demands, which in turn have defined how teaching and learning should be conducted, and this does not include the use of DTs in education. It could be expected in this regard that it could be somehow challenging to change this habitus, or even to allow for the accommodation of new ways of teaching. Habitus may be understood as a system of schemes of perception and discrimination embodied as dispositions reflecting the entire history of the group and acquired through the formative experiences of childhood. If these academics have been taught in a certain way since childhood, and have been teaching just as they were taught, there is a very high possibility of the reproduction of the same habitus, over and over again, which can make it difficult to change. How then are academics and/or teachers going to be able to identify with DTs, and how fast is this going to happen, if it will happen?

According to Belland (2009), by lengthening pre-service teachers' exposure to messages about educational technology and technology integration through modelling of effective technology integration throughout teacher education programs, and by providing opportunities for practical experiences in technology integration through problem-based collaborations with local teachers on technology integration projects, pre-service teachers' dispositions to integrate technology may be changed. This would provide teachers with more tasks to do with DTs, and the amount of time that they will spend doing this will provide them with enough practice and understanding of DTs. In the end, this may change their dispositions toward DTs, hence their habitus.

One of the most pressing issues related to the deployment of DTs in education is that

education system needs to change, and to most people change is not always readily welcomed. It brings uncertainty and insecurities as it destabilizes the ordinary in their lives and the work place, the ordinary being their habitus. Given that most schools in both developed and developing countries are still using the education system that was used during the industrial era, the latter particularly so, this could mean a lot of instabilities as people fear that they would not be able to cope and would lose their jobs as a result. For most academics, it could be a real challenge to change from ways in which they themselves were trained, socialized and educated. However, if industrialization was able to change people's dispositions about modes of production they were using before its existence, there is surely no reason why through education and training globalisation cannot do the same, (even though it will take a while).

Dronter (2008) argues that identity performances are clearly involved in most of the leisure-time engagements that children and young people have with digital media. "To the uninformed adult eye, teenagers blogging in their bedrooms or playing online games may, indeed, appear engaged, but these also seem to be individual, even lonely, activities" (p. 175). According to Dronter and other authors, the frequent use and interaction with technology has affected how learners of today find, process and understand information.

However, literature that is critical to writers such as Prensky raises the question of whether the terms he used are too general (Czerniewicz and Brown, 2010; Ndlovu, 2010). According to Brown and Czerniewicz (2007), there are variations in use of DTs even within the high access group. Findings in their study show that the terms are not accurate especially because of these variations in use within the same groups. Apart from this, the terms are 'othering' and problematic, both empirically and conceptually, (Brown & Czerniewicz, 2007). In their study

their 2013 study, Carmen et al (2013) argue that a 2012 class has a generation of students who are extremely savvy about technology and media. They also argue that well learned action sequences may be activated by environmental cues and then repeated without conscious intention. This also goes back to the concept of habitus explored earlier in the report. The point is that there is variation in use, and this reflects underlying issues regarding individual and group variation on issues such as access and resistance to DTs resulting from their habitus. How academics use and perceive themselves towards DTs would help in understanding their DIds, this is explored in more detail in the next section of the report.

2.5. Digital Identities (DIds)

The main focus of this study is on the DIds of Southern African academics. In the previous parts of the review, it was argued that changes in economic structures call for changes in the educational systems, changes in the educational systems affect and are affected by existing habitus and socio-cultural structures. The issue of DIds has as much to do with people's habitus as do the issues of socio-cultural backgrounds as it looks at how people identify with, and perceive DTs, and how their use may have been affected by their socio-cultural backgrounds as well as the background of the field in which they operate. DIds have to do with how people use DTs in their everyday activities, as well as their perceptions regarding this use as a new social order, or as a way of living in the digital era. This would mean that DIds do represent a habitus. This part of the report looks at how all these changes affect the individual, and here the report puts much focus on academics as it explores their DIds.

It has already been established in the report that the issue of access goes deeper than just

having the machines in people's offices as it also involves how well they understand how to use them and for what. This includes the ability to search for and find the right information, as well as making use of that information in ways that are consequential. But there is also the issue of one's use of DTs and how this use has been affected by their habitus. Arguably, the issue of access to the hardware (computers) is fairly advancing. However, even after this, the computers are still gathering dust in the offices. Why is it that even after training, after making sure everyone has a computer that people are still not using them? Having seen the importance of using DTs, and how different factors such as the socio-cultural backgrounds may affect or be affected by their use, it is important for the purposes of this report to look at how all these factors affect or are affected by the formation of academics' DIds. What is it that academics use DTs for, if they do, and which DTs do they use? And what are their dispositions about the use of these technologies as a new way of living?

Research shows that in any society, whether agrarian, colonial or industrial, the issue of identity has always been controversial (Palfrey 2007; Hall 1992, Castells 1999), even more so in the networked or information or knowledge society. There are many definitions and interpretations of identity. According to Buckingham (2008), identity is an ambiguous and slippery term. It has been used - perhaps overused - in many different contexts and for many different purposes, particularly in recent years. "There are some diverse assumptions about what identity is and about its relevance to our understanding of young people's engagements with digital media" (Buckingham, 2008, p. 1). Palfrey (2007) defines identity as the search for the meaning of the individual in relation to the self and to the society. According to Hall (1992), "... the issue if identity relates to the character of change in late-modernity; in particular, to that process of change known as 'globalization' … and its impact on cultural identity. … Modern societies are therefore by definition societies of constant, rapid and

permanent change. This is the principal distinction between 'traditional and 'modern societies'" (Hall, 1992, p. 68). Through the use of DTs, individuals are able to create and manipulate identities; people make claims about who they are and how they relate to one another in the digital world. How, why and for what one uses and interacts (or claim thereof) with DTs defines one's digital identity. How, why and for what Southern African academics use and interact with DTs will define their DIds.

According to Zhao, Grasmuck & Martin (2008), identity is an important part of the self-concept. "Self-concept is the totality of a person's thoughts and feelings in reference to oneself as an object" (Rosenburg, 1986, in Zhao et al, 2008, p. 1829), and identity is that part of the self "by which we are known to others", (Altheide, 2000, in Zhao et al, 2008, p. 1831). So, what then are academics' thoughts about themselves with regards to the DTs? Goode (2010) argues that daily interactions with digital technologies inform and shape how people view themselves as part of a certain community. He also argues that different learning experiences at home and school develop different relationships with technology. In addition, he argues that the consequences of one's technology identity has a powerful influence on the attitudes and decisions people make regarding their academic and life plans (Goode, 2010). This would mean that based on the experiences individuals have with digital technologies, their attitudes toward them will be different. However, there is a need in the digital era for people to incorporate the use of DTs in their habitus as a new mode of communication and a way of life. It was therefore quite interesting to hear what academics say about themselves with regard to digital technologies; which ones they prefer for what purpose and so on. In addition, it is argued that the construction of an identity is a public process that involves the "identity announcement" made by the individual claiming an "identity and an identity placement" made by others who endorse the claimed identity..." (Altheide, 2000, in Zhao et

al, 2008, p. 1818). This definition takes us back to earlier discussions in the report about people in the same circles having the same attributes or dispositions. In the network societies, members define themselves in ways that are acceptable to other members. It is no surprise that when in the community of people who use DTs, all or most members strive to use the same technologies as other members of that community. One is defined by the types of technologies they use in terms of gadgets, how recent, a number of gigabytes they have, how fast they are, as well as the amount of money one has paid for them, factors which may mean nothing to someone who is not within the same circles. It is also not very surprising that these days even when one looks for a house to rent or buy (which also happens online), the first thing they are worried about is whether there is good network coverage in that area.

However, for those who are not in the same community (network society), these factors are not really an issue. They do not possess the same cultural capital as those in these communities, therefore, the use of DTs as a form of objectified cultural capital does not mean much to them. These days almost everyone has a cellular (cell) phone for instance, but what they use them for is a different story altogether. In their 2010 study on the use of cellphones by two students with different backgrounds, Czerniewicz et al found out that depending on the different cultural capitals, people use cellphones for different reasons, and that they identify with them differently. Carmen et al (2013) argues that over an extended time period, continued use of technology becomes habitual, “which means that well-learned action sequences may be activated by the environmental cues and then repeated without conscious intention”, (p, 26)

Furthermore, as has been discussed earlier, unlike in the past few years, we are no longer very worried about lack of resources (such as computers) in many cases as governments are trying

to reach out and buy them even for less fortunate schools, GoL initiative is a good example of this as the government has built computer labs for underprivileged schools (as stated in the *White Paper on e-Education* 2004) and packed them with computers. Even though this is very recent and not much research has been done to see its effectiveness yet, some literature shows that in other countries, teachers do not make effective use of these resources. For instance, Belland (2008) claims that in a series of studies that were conducted in the United States of America many teachers were found to be encouraging learners to use computers for things such as typing and playing games, not for searching and analysing important information. This supports Bourdieu's analysis of the cultural capital; because teachers do not have it in their habitus that DTs are part of a way of life today, they are not able to use them in ways that are intended for them to be used by those who possess this kind of capital. This would mean that for them to have this capital, they need to be institutionalised and get a very extensive training that will get them to build new dispositions and see DTs as a new way of living today. This would also help them have embodied cultural capital that they need in order for them to be able to use DTs.

According to Buchanan & Smith (1999, in Belland, 2008), most teachers attended teacher-directed classrooms where technology was not integrated, so, they enter teacher education programs with teacher-directed folk pedagogies and folk beliefs that technology is not needed to help students learn. This could mean that regardless of the efforts of spending a lot of money on getting all the resources that are required for teachers to be able to make an effective use of DTs, teachers are still not going to use them. Belland (2008) asserts this in saying that these 'folk beliefs' that teachers have are very resistant to change, and may impede the development of dispositions to let students use technology to construct knowledge. This has a lot to do with their habitus, from childhood to where they are today,

and it could take a very long time for educators to finally identify with DTs.

What will it take then, to incorporate this new habitus into the old ones that academics already have had for so long? And, in cases like in this report where people come with different capitals, is it ever possible to reach a common ground as to which DTs to use and how to use them in education as a field? The following part of the report looks at the rationale for research questions that were asked during the conduction of the study.

Overview of the literature

From the above review, it is evident that there is a new emerging habitus which is towards the use of DTs because of the changing economic as well as societal demands. This use of DTs represents a new habitus because it affects ways in which today's societies conduct their everyday life. This being so, it means ordinary social structures have to change and incorporate this new habitus in their old habitus in order to perform in the global economy. Because habitus is resistant to change, there is tension between the new and the old habitus. In order to release this tension, education among other things needs to cater for the needs and demands of the new economy. There is a need for use, deeper understanding and familiarity with DTs, and the starting point is the education system.

However, it is also evident that there are some predicaments that inhibit successful use of the new technologies, which are mainly caused by prevailing socio-cultural, economic inequalities, as well as the habitus created by those acquired in those backgrounds. These issues have prevailed for a long time, especially in less developed countries such as Lesotho and SA in which this study is based. The literature also shows that through the effective use of DTs, there is hope that these predicaments could be overcome. It is also clear that it will

take a lot of time and effort to change the prevailing habitus, or to accommodate the new one.

Nonetheless, there is also an outcry that because of the unequal distribution of resources, there is fear that the use of DTs is reproducing the inequalities within and among societies as it is those who are in much more fortunate positions who have full access to the best technologies. Even to those who do have access, they need skills and strategies to search, find and use the right information, both constructively and effectively. The literature also shows that in higher education, there is a gap in use, understanding and familiarity with DTs between academics and learners as learners are much more familiar with the technologies than their educators due to circumstances that built their habitus.

It has also been discussed that Bourdieu's theory of habitus can help in explaining and understanding the DIds of academics as it looks at different backgrounds as the formation of identities. It also explains why it is that it is difficult for anyone to change dispositions acquired and learned from childhood to adulthood. Even though most critics of the theory of habitus come from the understanding that it does not comprehend change, in this report this is seen as the strength of the theory as it accounts for many of the challenges faced by Southern African education with regard to the integration of DTs. It shows how difficult it is for people to change what they have learned and/or acquired all their lives to accommodate something new, which for the purposes of this report, explains why it is that it could be rather difficult for academics to immediately switch from everything they believed in (teacher-directed methods) to technology integrated methods. In fact, it is the contention in this reports that among others, Prensky's theory of 'digital immigrants' and 'digital natives' could have been understood better if it was analysed in terms of the theory of habitus. It could have better explained why and how it is that the 'digital immigrants' find it hard to use DTs as opposed to

the ‘digital natives’.

One can conclude in this regard by saying that from the literature review, there are many factors that affect academics’ use and/or rejection of DTs; some are social, some cultural, some economic, while some are just personal, which all come to fall under their habitus. It is evident at this point that Bourdieu's theory of habitus can be useful in explaining many of the differences in use and/or association with DTs.

Based on the literature above, it is important to understand the DIds of Southern African academics and the part played by habitus in their formation. Also based on the literature, it is evident that in order to understand the DIds and the role of habitus in their formation, one needs to first understand different categories of habitus; age, gender, class, educational background and so on. Understanding these categories will help in seeing which categories may affect use and/or rejection of DTs, and thus contributing on the formation of DIds. It is also important to understand how these DIds affect ways in which academics integrate DTs in teaching and learning. The questions asked in this report are in line with these issues as they have been pointed out by the literature reviewed in the report.

Chapter 3.

3. Research Questions

3.1. Rationale for the Research

This study uses the theory of habitus and the concept of field to show that social agents develop strategies which are adapted to the needs of the social spaces that they inhabit. Even though there is an economic shift in the 21st century in other professions in terms of production, the extent to which education as a field is embracing the use of digital technologies has not yet been fully established. Available literature in EIT as well as socio-cultural theories (Castells, 1999; 2000; 2001; 2007; Palfrey, 2008; Prensky, 2001; Siemens, 2005; Czerniewicz & Brown, 2005; & others) argues that there are many factors that still need to be addressed in order to achieve an effective use of DTs that will enhance education. In higher education context, it is important to look at ways in which academics use and interact with DTs in their daily activities and how this has been affected by their habitus.

This is because those DIds will have much effect on how academics integrate DTs to their everyday teaching, as well as the extent to which existing habitus that characterises education as a field allow for this to happen. Green (2000:a; cited in Benson et al, 2002) argues that the presence of new digital information and communication technologies continues to grow in higher education campuses, and many students now expect to learn about and learn with digital technologies. This also shows that there is a gap and/or differences in the habitus of the youth, academics and higher education as a field; academics as agents acting in the field of higher education, have already regulated the rules by which the field is operated, and those rules do not necessarily accommodate the new habitus possessed by the youth, and this creates tension between all those affected, as a result, this affects ways in which each reacts toward the use of DTs. This would mean that there is a need to revisit and restructure the

rules of the field, which would mean that it is important for academics to not only understand, but also to know which DTs they use, how they use them, as well as what they use them for.

It is also important to look at this issue from two different backgrounds; rural (disadvantaged) and urban (advantaged). This way, the validity of the extent to which academics' use of DTs is affected by habitus as well as the habitus of education as a field could be fully established; academics might be affected differently as conditions that shaped their habitus might be different. In other words, their habitus might be different, and therefore, so will their reaction towards DTs. Bernson et al, (2002) argue that difference in access to DTs and the Internet among socio-demographic groups is an issue of growing public policy discussion, however, with exceptional few; it has received little empirical attention within the context of teaching and learning in higher education.

More and more countries are working towards the goal of being able to compete in the global economy. In SA (at the time of writing this research report 2011) for instance, the deputy Communications Minister has announced that the Universal Service and Access Agency of South Africa (USAASA) has been asked to establish a 400 ICT access centres in under-serviced areas by 2015 – (Rasool ITWeb, 2011). This initiative is part of efforts to bring the number of connected schools in SA up to 7000 (out of 28 000 schools). There has since been the introduction of GoL, which has raised many debates along the lines of whether the computers are better in the classroom or in the lab for both the learners and the teachers. The problem though is that most educators are still struggling to shift from their old habitus and dispositions they have already developed about teaching and learning, which still leaves the government with a lot of training to provide. It is important to focus on schools since researchers such as Prensky (2001) argue that today's students, due to constant use of DTs,

have more of what Bourdieu calls embodied cultural capital or what Czerniewicz & Brown (2010) call technological habitus, and go to school expecting to learn through them.

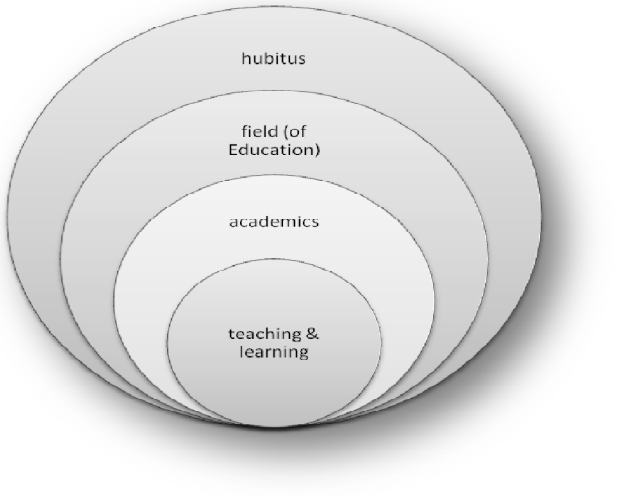
Based on this, it is clear that the socio-cultural structures affect the formation of DIds of academics in higher education. This would also mean that depending on different socio-cultural, as well as economic backgrounds found in different countries, the formation of DIds of academics in higher education would be affected differently. It was therefore interesting to study ways in which academics in Lesotho interact with the new technology, as compared to those in SA which is much more urban and developed, as well as the role played by habitus in shaping those DIds.

The aim of this study therefore, was to discover the DIds of academics in Southern African universities, specifically at the NUL which is a rural university, and Wits, which is urban. It intended to establish how DIds of academics in these universities are similar and/or different, and what part socio-cultural condition played in shaping them, as well as conditions that shape the use of DTs in ways that are consequential for teaching and learning. There has not been any study conducted in both universities on the issue of DIds of academics, and this study was aimed at providing a basis for improving the practice of the governing body.

3.2. Specific Research Questions

"The cognitive structures which social agents implement in their practical knowledge of the social world are internalized, embodied social structures" (Bourdieu, 1984, p. 468). If DIds have to do with ways in which people interact with DTs, it goes without saying that this will also have to do with their habitus. In this report, habitus is also treated as socio-cultural background, and each institution as a field with its own habitus. I have created *Figure 1* below in order to illustrate the interrelationships between habitus, the field, academics, as well as teaching and learning;

Figure 1.



The interrelationship between habitus, field of education, academics as well as teaching and learning.

Habitus encompasses the field of education as there are established unconscious rules by which the field is run. Within this field, there are academics, who act in the field according to the established rules of the field. Then there is teaching and learning operated by academics, based on the rules of the field. All these are governed by the established habitus, that of the field, as well as those operating in the field. This does not necessarily leave room for any new habitus, so making it difficult to change.

As shown in Figure 1, at the core of any higher institute is the process of teaching and

learning. This process is performed by academics within the institution, all these elements; (teaching and learning, academics and the institution (the field)), are affected by and affect one another's habitus. Even though each element has its own established habitus, at one point those elements come together and become the rules by which the field is operated. Anything outside these elements, with its own rules, is likely to class with the ones that have already been established within that particular field.

Through data collected at Wits and the NUL, the report tried to answer the following question;

◆ What role does technological habitus play in the formation of digital identities of academics with regard to teaching and learning?

Below is an account of how sub-questions to answer the main questions were constructed based on the literature;

3.3. Construction of Questions Based on the Literature Review

The purpose of this study was to answer the following question;

What role does technological habitus play in the formation of digital identities of academics with regard to teaching and learning? The report uses findings in the literature on Bourdieu's theory of habitus and the concept of field to form sub-questions that would ultimately assist in answering the main question. Below is the analysis of each sub-question according to literature reviewed in the study.

1) What are the DIds of academics at the NUL and Wits?

As it has been argued in the literature review, it is important to understand how academics identify with DTs in their daily activities including work, home, socializing, as well as in teaching and learning. Literature (Goode, 2010; Carmen et al, 2013 and others) also shows that in order to be part of the globalised economy, there is a need for societies to have a clear and deeper understanding and familiarity with DTs. Understanding how academics use DTs brought light in discovering their DIds, and the use of the theory of habitus brings even much clearer understanding of how their DIds as a society mostly raised in practices that did not necessarily include DTs affect their understanding of DTs as a way of life in the digital era.

1a) What is the level of computer literacy in both universities?

The two universities in the study have different socio-cultural, as well as economic backgrounds. It has been shown in the literature (Czerniewicz et al, 2010; Bain et al, 2006; and others) used in the study that one of the problems regarding use of DTs is lack of understanding due to lack of training as academics do not possess the embodied cultural capital (Bourdieu, 1977) that allows the use of these technologies. Understanding the levels of computer literacy of academics in the two universities helped in discovering whether this theory is true or not. The backgrounds of the universities also clarify the part played by differing socio-cultural as well as economic backgrounds in the use of DTs. This is due to the fact that some of the literature (Prensky, 2001) used in the study argues that the use and/or rejection of DTs results from the digital divide that is the result of persisting inequalities within Southern African societies. Based on this literature, one would expect that because Wits has much more resources than the NUL, the level of computer literacy and training of academics would be higher than that of the NUL.

1b) Which DTs do academics prefer to use in both universities and why?

Understanding the choices of the DTs academics make and why brought an understanding of their DIds. Most of the time when people talk about DTs, they are mostly referring to computers, but there are a lot of other DTs out there including cell phones, cameras, as well as television (TV), all of which could be used in teaching and learning. The literature used in this study also shows that most people prefer to use computers than other DTs. This question was asked in order to get an understanding of which DTs academics have access to, and how their differing backgrounds have affected the availability or lack of these technologies, as well as their perceptions towards different DTs, which in turn would bring light in discovering their DIds.

1c) Which applications do academics use and why?

Even though there are many effective ways of using DTs in the digital era, literature used in this study argues that most people claim to use and understand how to use different applications, while in fact, ways in which they use them are not really as effective as they were intended to be. This is mostly due to lack of the cultural capital necessary for them to be able to effectively use DTs. For instance, literature (Belland, 2008) shows that even those educators who claim to use computers in their teaching; instruct learners to type and/or print their work rather than train them to be able to search for and manipulate information in ways that are productive. In addition, even those who attempt to integrate computers for instance in their teaching, they still conduct teacher-directed classrooms and project the already prepared notes for learners to copy, which is in their habitus since they have been taught that way for a very long time. It is important therefore, to understand the type of applications that academics employ in their teaching and learning

in order to understand their DIds.

2) ***What role does habitus (socio-cultural backgrounds) play in shaping the DIds of academics in both universities?***

The literature (Czerniewicz et al, 2010) in the study shows that habitus has to do with the long-learned and acquired dispositions by people with regard to what goes on around them. This would also include their views and perception (Benson, et al 2007) regarding good education, culture, socializing, as well as ways in which they go about life. In addition, there also seem to be a tension between the old habitus and the new one which is toward the use of DTs (Carmen et al, 2013), this question was intended to discover the extent to which old habitus affects the incorporation of the new one which is all about the use of DTs in the digital era.

2a) What are educational levels of academics in each university?

The purpose of understanding educational levels of academics in this study was discover if educational level has any impact on how academics perceive DTs. In addition, it would also clarify the periods in which academics were schooled, which would identify ways in which they were taught. This is important because as literature shows, people tend to teach the way they are taught, and they perceive this to be how education should be. It has been shown in the literature that as these ways of teaching are part of academics' habitus, they are some of the obstacles that prevent academics from welcoming the existence of DTs as a new practice. It is therefore important to understand if the level of education as a category of habitus each academic has, has any influence or play any part in shaping their DIds.

2b) What are the socio-cultural backgrounds of academics in each university?

In this report, socio-cultural background has been treated as habitus as they both have to do with ways in which people live, as well as how they perceive everything surrounding them. This being said, it would also mean that everything that has been discussed in this section about the questions, could also be explained as part of socio-cultural background or habitus. However, here it has been treated as independent because it looks at all those issues such as educational background, cultural, social, as well as economic background as a larger part of academics' habitus, as well as how they have affected or are affected by the use of DTs as a practice.

2c) How do these backgrounds affect or influence the choices of DTs academics use?

The purpose of this question in the study was to discover academics' choices of DTs and what part habitus plays in those choices. Due to their different educational levels, cultural backgrounds, computer literacy and more, academics might make different choices (Czerniewicz et al, 2010; Benson et al, 2007) when it comes to which DTs to engage with, which all depend on the above considerations. It was therefore important to find out if habitus has anything to do with the choices academics make, which according to the literature in the study, does.

2d) How do these backgrounds affect ways in which academics conduct teaching and learning?

Literature in the study shows that there is a need for academics to understand and use DTs in ways that are consequential to education (Benson et al, 2002) in order for countries to be able to compete in global economy (Casells, 2001; 1999; 1998). However, literature also shows

that it can be difficult for academics (Benson et al, 2007) to embrace new ways of teaching and learning due to the fact that they are not in their habitus. In addition, literature also shows that different socio-cultural backgrounds (Czerniewicz et al, 2010) affect ways in which people perceive their surroundings, teaching and learning included. It was therefore necessary to understand if and how these backgrounds affect ways in which academics make use of DTs in teaching and learning as a new social order.

Chapter 4

4. Research Design

4.1. Introduction

To discover the digital identities of academics, a mixed methods approach (quantitative and qualitative methods) were used, that are informed consistent with the methodologies of Bourdieu's notion of habitus. Mills et al, (2007) argue that for Bourdieu, it is not simply a question of what technique to use and how to use it, but rather why it is used and to what ends. What Bourdieu does hold to, though, is the continuous use of a set of interrelated conceptual metaphors: habitus, capital and field. “These are central to his method and practice, and all other considerations flow from them. They are the pivot on which he constructs his synthesis of subjectivism and objectivism” (Grenfell & James, 1998c; in Mills et al, 2007). As explained above, these are also the mechanisms through which he explores social inequalities.

The research was conducted using a mixed method approach; quantitative method through administered questionnaires, and qualitative method through semi-structured face-to-face interviews. The primary data was collected from the academics from both universities (the NUL and Wits). The focus of the research was the academics' use of DTs, interviewing them helped in establishing their use and informed the study on how their different backgrounds have affected their use and/or rejection of DTs in the formation of their DIds. Maree (2007) argues that mixed methods are helpful in understanding some of the trends and patterns, studying diverse perspectives or understanding relationship between variables. They are “a procedure for collecting, analysing and mixing both quantitative and qualitative data at some stage of the research process within a single study to understand a research problem more completely” (Maree, 2007, p. 261).

4.2. Data Collection

To discover the DIds of Southern African academics, academics from both universities were interviewed through both administered questionnaires and slightly structured interviews. The universities are both situated in Southern Africa and were chosen mainly because of their diverse backgrounds as Wits is much more privileged than the NUL. They were also chosen because of convenience as I am studying at Wits, and apart from being in my home country, the NUL is where I did my first degree, so I have a better understanding of the two universities than any other. Bourdieu argues that when conducting a sociological research, one ought to continually reflect back upon their own habitus, their dispositions learned through long social and institutional training.

The clear understanding of the two institutions also helped in following up on the questionnaires as well as the face-to-face interviews. Even though the faculties were chosen purposively, 30 administered questionnaires were emailed to randomly selected academics in each institution. This was random because I did not know every individual in each department/faculty/division/school. However, I had reservations about a number of questionnaires that would be returned. This was due to the fact that I already had doubts that it is not a very large number of academics who have much interest in answering questionnaires, especially those sent by email, to many, they seem rather impersonal. This would have much to do with the dispositions that academics in both universities had about emails.

In the first round, there was not a single questionnaire completed and returned from either

university, but on the part of Wits, 9% of participants sent emails saying that they were not able to open the questionnaires as their systems are not able to open Microsoft (Ms) Office InfoPath in which the questionnaires were sent. Ms Office InfoPath is a software application for designing, distributing, filling and submitting electronic forms containing structured data. This format was chosen because it can calculate and analyse a percentage of responses accurately which in turn would save time. After changing the format of the questionnaires to Ms Office Excel, I emailed them again to all previously chosen participants, including those who did not reply at all, with a message apologising that I understood that the reason they have not responded was that they could not open the questionnaires.

Even after this, the response rate was not good enough, so I would go from door to door of those I had sent the questionnaires. 55% of academics said they did not get any, and they were so willing that they would open their emails to prove that they did not get them, only to find it in junk emails, or under deleted emails, or in their inboxes, all of them unread. This on its own showed some form of ignorance towards some DTs in the part of academics; every time one sees an email whose subject reads 'Research Questionnaire' they take it straight to their trash bins, or just ignore it, even worse, take it to junk emails. Some would ask me to re-send the questionnaires, and it was only then that they replied. Even though I never intended to print out questionnaires at all, I ended up doing so and delivering from office to office in person. In the end though, all these paid off as the response rate was around 90% as out of 30 respondents 27 replied.

Through all these, what one could learn is that many academics became empathetic and willing to help only when they saw me in person. In addition, the fact that the number of responses from the printed-out questionnaires was way higher than that of emailed ones for Wits participants shows that many academics still prefer pen and paper. There are some who

even after getting the questionnaires through emails, printed them out, completed them, and then gave me a call to come and collect them. This said a lot about academics' DIds.

At this point, it should be clear that I did not receive a single response in the form of email from the NUL participants, so much that even though I was studying at Wits and staying in Johannesburg at the time, I had to go to the NUL to deliver printed questionnaires. Despite the fact that the lecturers were on strike, most of them were very happy to complete the questionnaires and said they did not check their emails, which some said they do not have (email accounts). While going through all these was stressful, time consuming and quite costly, it helped a lot in the purposive selection of participants that I wanted to conduct face-to-face interviews with.

4.2.1. Quantitative Method

Quantitative research method is the systematic investigation of social phenomena via statistical, mathematical or computational techniques. The objective of quantitative research is to develop and employ mathematical models, theories and/or hypotheses pertaining to phenomena. The use of quantitative method in this project was meant to inform the study on a general idea of the academics' use of DTs and factors affecting them. This helped the aim of selecting the participants who represent the different backgrounds and categories of habitus for the semi-structured interviews. The intention was to represent the different categories including; age, education, gender, class, years of experience, as well as views on the use of DTs by academics. Some questions need an in-depth analysis and can only be understood from different perspectives. The data collected from the questionnaires also helped in understanding the differences in the academics' DIds between as well as within the

universities.

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4.2.2. Questionnaires

To have a general understanding of the participants and their use of DTs, for basic information such as age, gender and the level of computer literacy, structured questionnaires were administered to 30 randomly selected academics in the school of education and the Faculty of Humanities at Wits, and in the Faculties of Humanities and Education at the NUL. This was for systematization of data collection and to get insights of which participants I wanted to interact with, for example; age, educational background, social class category and more.

4.2.3. Qualitative Method

Qualitative research approach is the primary method used in the study. McMillan and Schumacher (2006) define qualitative approach as the inquiry in which researchers collect data in face-to-face situations by interacting with selected persons in their settings. It is a method of inquiry employed in many different academic disciplines, traditionally in the social sciences, as it is aimed to gather an in-depth understanding of human behaviour and the reasons that govern such behaviour. This method investigates the why and how of decision making, not just what, where, when. Hence, smaller but focused samples are more often needed than large samples. The aim in this report was to get perceptions, thoughts and views of academics towards their use of DTs, with the goal of understanding their DIds, and issues that shape them.

Participants were interviewed in a semi-structured interview where they were prompt to infer, describe, explain, and define their interaction with DTs and issues surrounding their interactions. Through their responses, behaviours and actions, conclusions were made about their DIds and issues affecting them. Blanche et al, (2006) argue that qualitative methods allow researchers to study selected issues in depth, openness, and details as they identify and attempt to understand categories of information that emerge from the data. The study uses biographical approach to interview selected participants.

- **Biography;**

This is a tool used when trying to understand someone's life history. Robert (2002) argues that biographical research seeks to understand the changing experiences and outlooks of individuals in their daily lives, what they see as important, and how to provide interpretations of the accounts they give of their past, present and future. The use of biography in this study was intended to learn about each individual's life history from childhood to adulthood. From the earlier definitions and/or descriptions of Bourdieu's concept of habitus in the study, we know that habitus is life history; all the acquired and/learned dispositions about life from childhood to adulthood. Through face-to-face interviews, notes were taken about academics' life histories that could have shaped their DIds. During the interviews that were structured in such a way that academics were able to talk about their experiences about life, every conversation was recorded, notes were taken, then transcribed. The information gathered from these transcriptions was then analysed in ways that represent all the issues that were raised both by the literature and the main question of the research.

According to Bourdieu (2000a), the discourse of an interviewee is a process of making oneself the ideologist of one's own life, the autobiographical narrative is motivated by a concern to select significant events from one's own past and to create casual links between them. Interviewees may have an interest in their biographical presentation according to their

social position and trajectories. Bourdieu argues that when interviewees have this interest toward their biographical they try to be more coherent. This process is identified by Bourdieu as 'the artificial creation of meaning' (Bourdieu, 2000, p. 298). This method helped a lot, as well as the familiarity that I have with both worlds that are likely to be found in the two universities, “life history is closer to the official presentation of self” (p. 298).

Furthermore, Bourdieu argues that the interviewer must accompany interviewee's remarks. This is an important feature for participant objectivization; the interviewer can easily recognize the dispositions s/he shares with the interviewee, and the testimony of respondents can reveal the patterns of capital and social space, (p. 42). Bourdieu further argues that the plurality of perspectives is one of the features of human experience; human beings do not have a single, central, dominant point of view, and he insists on the plurality of perspectives and points of view.

4.2.4. Sampling and Data Analysis

As this research used biography as the main methodology, stratification was used as the criteria of comparison between and within the two universities. The focus was on variation: variation in both the perceptions of the phenomenon (DTs) as experienced by the academics. The two universities Wits and the NUL were chosen because of their differing socio-cultural background (habitus) as they are some of the critical issues affecting use, accessibility and perception of DTs. Thirty (30) participants were first randomly chosen from each university, after the completion and return of the questionnaires, twelve (12) participants were selected within each university in such a way that answers the question of the difference in use of DTs

in terms of socio-cultural background, age, computer literacy level, perspectives and beliefs. Then they were interviewed face-to-face in semi-structured interviews. The main reason for this purposive sampling was to gather participants from different categories of habitus including; age, socio-cultural background, gender, educational backgrounds etc.

After all the questionnaires were collected, and face-to-face interviews had been made, coding was used as it is described by Maree as the process of reading carefully through transcribed data, line by line, and dividing it into meaningful analytical units. Through the use of priori and inductive codes, I was able to go through the transcribed data and divide it into meaningful analytical units. The study primarily uses available literature to analyse all the information gathered; sociological theories, literature on DTs, as well as other studies that have been made before. Sampling was made in order to compare the data from both universities.

4.3. Ethical Considerations

The participants in this study were academics at the University of the Witwatersrand School of Education, as well as academics at the National University of Lesotho (Faculty of Education). Permissions to conduct the study in both institutions were obtained from the Dean of Humanities (Wits), and the Registrar (NUL), both in the form of letters. Participants were sent information sheets which assured them that there would be no risk resulting from their participation in the study, and that their privacy would not be compromised as their identities would never be revealed. They were also informed that their participation was voluntary, and that they would not get any form of payment or reward, and that there would be no penalty for their declining to take part in the study. They then signed concerned forms,

which I also signed. The research results are anonymous. Data collected is coded to protect the identity and privacy of participants. The interviews were recorded and notes or scripts gathered from the interview are kept safe and will be destroyed after two or three years. The study is voluntary and participants were given an option to withdraw from the study at any time by contacting the researcher on the contact details provided. All the letters are in the attached in the Appendix section of the report.

4.3.1. Validity of the study

Validity is described as the degree to which a research study measures what it intends to measure Maxwell (1992). To ensure that the study tested what was intended, returned questionnaires were studied, all responses were analysed and categorised according to different aspects that were to be tested. This was done in order to help in deciding which participants were to be interviewed in semi-structured interviews. After this selections was made, interviews were conducted and everything was recorded and noted. The collected data was then transcribed and analysed according to different categories of habitus. Conclusions in the study were based on the data and the actual literature and previously formed hypothesis. Maxwell (1992) argues that theoretical validity is obtained to the degree that a theory or theoretical explanation developed from a research study fits the data and is therefore credible and defensive. The fact that the study uses triangulation guarantees the validity and reliability of the findings. Cohen and Manion (1994) define triangulation as using more than one method for gathering data in a study. More than one approach was used to collect data in this study by using both qualitative and quantitative approaches in order to enhance credibility.

Chapter 5

5. Data Findings and Analysis

5.1. Introduction

It has been shown in the literature review that accumulated research indicates a strong correlated relationship between habitus (socio-cultural backgrounds) and DIds (use of DTs). This report seeks to answer the following question;

◆ What role does technological habitus play in the formation of DIds of academics with regard to teaching and learning? (The questions as well as the sub-questions have been explained in Chapter 3.3 above).

According to Mills et al, (2007) utilizing Bourdieu's theoretical perspective to inform data analysis requires researchers to look at the dynamic interaction between individuals and the surroundings in which they find themselves and situate their accounts within a larger historical, political, economic and symbolic context. Bourdieu (in Bourdieu & Wacquant, 1992) gives a very extensive account of what it means to analyze a field by thinking in terms of three distinct levels that direct the researcher to:

- Analyze the position of the field *vis* the field of power;
- Map out the objective structure of relations between the positions occupied by agents who compete for the legitimate forms of specific authority of which the field is the site; and
- Analyze the habitus of agents; the systems of dispositions they have acquired by internalizing a determinate type of social and economic condition.

In this very real sense, the critical sociologist also occupies a position within the game. The objects of analysis within the field are “the stakes in the game (capital), the strategies, the objectified histories of the agents (their positions and habitus) including, ineluctably, that of the sociologist” (Barnard, 1990, p. 78 in Mills et al).

Findings in this study support the assumption that socio-cultural background affects use and/or rejection of DTs. There is also much fear on the part of the academics that the use of DTs is meant to replace their long-learned teaching, which results as one of the reasons they reject them. This mostly has to do with their habitus as they have learned those ways of teaching throughout their lives. However, the findings refute the assumption that access to DTs hardware promotes use of DTs by academics in their teaching and learning. There are many underlying issues that affect use and/or rejection such as lack of training, and unwillingness to go for such training where it is available. This chapter looks at the findings from the universities, and their analysis.

The participants in this study were selected based on; age, background, gender, point of view towards DTs, as well as experience in teaching as categories of habitus in efforts of trying to discover the relationship between habitus and the formation DIds. These selections were made after getting back the questionnaires as explained above.

5.2. Data Findings

5.2.1. What is the level of computer literacy of the academics in each university?

These were findings from the questionnaires.

Level of computer literacy and training for the NUL participants

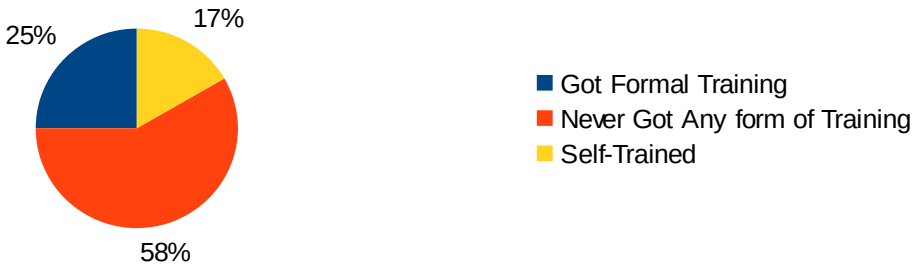

Figure 2(a).

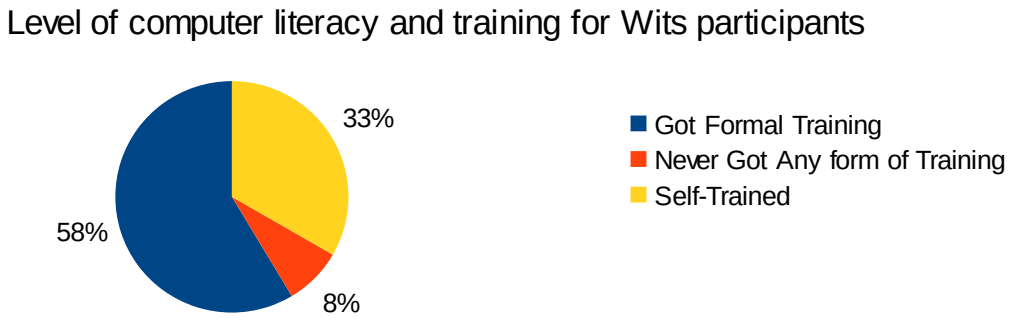

Figure 2(b)

- 58% of the NUL academics who participated in this study did not go for any form of training in computer use, and would like the university to provide and pay for such training, whereas 8% of Wits academics who participated in this study never got any form of training and are not interested for different reasons. Of the 58% of the NUL academics who never got any form of training, 52% of them are above 46 years of age. They blame their lack of training for their rejection of DTs. One participant said he would like to use DTs as he has heard they are really good for use in teaching, especially for larger class sizes as in one class he has over 300 learners, and that it is always hard to reach all the learners in teacher-directed classrooms. The other members in this group insist that they wish the university could provide some form of

training in computer use, and also addressed the issue of large class sizes. There were the same issues for Wits participants in this group, except for the fact that for them, the university does provide such training, but most of them do not see any reason for such training.

- 25% of the NUL academics got formal training outside work, mostly at college, whereas 58% of Wits academics in this study got formal training, 50% of them got it from the university, while others got it from colleges. All of the 25% of the NUL academics who got formal training got it at colleges when they were still learners. The form of training they got was on basic computer applications such as Ms Word, Excel and PowerPoint, which are basically Web 1.0 applications. This group ranges from ages 36-46. This explains why they got training while the other group did not – they studied much recently while colleges offer such courses, while the other group might have studied at the time when those courses were not being offered. 19% of participants in this group do use DTs in their lecture rooms, but all of them use them in teacher-directed methods. They take their laptops with them and use projectors to go over readily prepared notes in the lecture rooms while learners sat, listened and took notes. Like the first group, these academics use these technologies only to cover the large classrooms, and for administration purposes.
- 17% of the NUL academics claim to have trained themselves in their spare time, whereas 33% of Wits academics in this study claim to have self-taught themselves how to use DTs, they also claim they do not need formal training as they understand how they (computers) work. The 17% of academics who claim to have taught themselves how to use computers are the ones who actually use them more than the other two groups. Apart from administration purposes, they do research on the

Internet for their subjects; however, they too make notes and use projectors to elaborate the notes to the learners. The 33% of Wits academics who claim to have self-taught themselves however, actually do use DTs in more ways in their teaching and learning; they use emails to communicate with learners, they also use applications such as Google docs for their learners to find documents.

Analysis

From the above findings, it can be concluded that there is lack of institutional capital among academics, and as a category of habitus computer literacy does play a role in academics' formation of DIds with regard to teaching and learning. Because of its privileged background, Wits is able to provide training in computer use for its academics much more than the NUL. However, the already developed dispositions about teaching and learning as a practice that does not include the deeper use of DTs result in academics reverting to their old ways of teaching even after training, even at Wits. This is evident in the findings as there are academics who still use teacher-directed methods even though they claim to have undergone training. Given the position of Wits, and the fact that the university does provide training, 58% of trained academics is quite low. This again goes back to the habitus of the academics with regard to teaching and learning as a practice; even though the field is trying to change its habitus by providing academics with the needed institutional cultural capital (training) in order to utilize the objectified cultural capital (DTs), it is taking longer to change the embodied cultural capital of academics with regard to teaching and learning.

For the NUL on the other hand, because of its minimal (as opposed to Wits) of economic capital, as well as the lack of same attributes with regards to the use of DTs possessed by capitalist societies of digital economies, the university either cannot afford to provide the academics with training on DTs, or does not see the need to, or both. However, this does not

only have to do with the habitus of the NUL as the field, it also has to do with the habitus of the academics as participants in that field. There are places in the country that offer training of this kind, but the academics do not see the reason why they should go for such. This brings us back to their long-learned dispositions about teaching and learning that does not include the use of DTs; they therefore still see DTs as 'improbable practice'. In addition, given that the university provides training for other issues, it is not surprising that all the participants in this university who claim that they would like to go for such training, also strongly believe that the university should pay for it, not themselves.

After understanding the views of academics from each university on training and literacy, they were asked the following question in order to get to the depth of their understanding;

5.2.2. Which DTs and applications do academics prefer to use and why?

In order to understand the DIds of academics in both universities, I found it important to understand which DTs as well as applications they prefer to use and why. From their views in relation with their choices and preferences, I wanted to discover the levels of understanding the DTs as this would also help in discovering their DIds. As the literature used in this report has shown, there is a strong correlated relationship between habitus and the formation of DIds.

5.2.2.1. Choices of DTs

Academics in both the NUL and Wits were asked if they had the following DTs and how they use them, as well as why they have chosen the technologies they had; cell phones, computers at work, computers at home, digital cameras, and laptops.

5.2.2.2. Cell phones

Cell phones have become one of the most popular modes of communication among communities; even for those who are not yet familiar with other DTs. Arguably almost every learner at tertiary level of education owns a cell phone. The understanding of academics' use of cell phones in this study was important as these phones today have so many functionalities that could be very useful to the field of education. For instance; Smartphones have applications such as Facebook, WhatsApp, Blackberry Messenger (BBM), even emailing that today's learners (or most of them) are already very familiar with, and educators could use these applications as learning platforms. This could reach out even to those learners or institutions that do not have access to other DTs such as computers.

The responses are illustrated below;

Percentages of academics who have cell phones in both the NUL and Wits

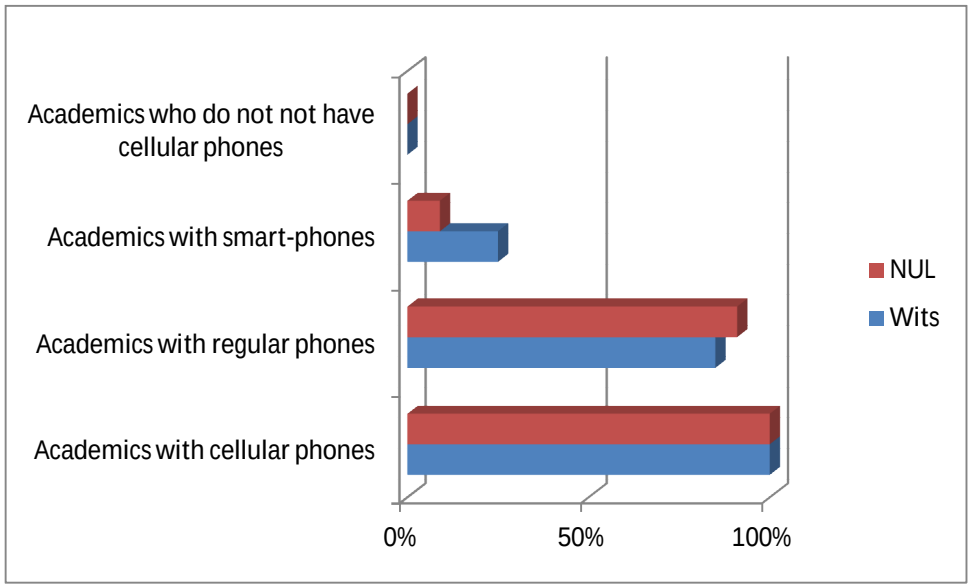

Figure 3.

- 100% of academics in the study in both universities do have cell phones
- 91% of the NUL academics in the study have regular cell phones, while for Wits academics in the study it is 85%
- 9% of the NUL participants have Smartphones, while for Wits participants it is 25%
- None of the academics from either university has no cell phone

Analysis

From these findings, it is clear that at least every academic has a cell phone. What is surprising is the very low number of academics who have Smartphones in both universities. Even more so, those who have Smartphones claim that they do not use applications found in these phones. One academic from the NUL said; *"Which applications are you talking about, I mean I just make calls and I get calls? SMSes, yeah, I hate typing them, I only write them when I don't have enough airtime"*. Two academics from Wits on the other hand complained about the size of the 'font' on the cell phones even though they do have Smartphones. One said; *"Have you ever tried reading an email from this thing? The writing makes my eyes cry; I*

would rather wait until I get to work and read my emails from my computer".

So, even though these academics from both the universities do have cell phones, they still use them only for the same purposes as landlines (even though they carry them wherever they go, unlike landlines). Those who have just regular phones in both the universities can afford to buy Smartphones, but have not really seen the need to spend such a lot of money on them while they could just get regular phones for so much less.

If we look at this from Bourdieu's perspective, we could say that academics from both the universities have used landlines for such a long time that it is in their habitus that a phone is just for making and receiving calls. Even though they now have cell phones, they still have the same dispositions about them as they have of landlines. They identify with landlines more, and this is in their habitus; we have seen that habitus is long-learned/developed dispositions towards agents' surroundings. Due to time spent by these academics using landlines, it has become part of their embodied cultural capital that phones are just for the purposes of making and receiving calls, anything other than that, is seen as an improbable practice. In addition, it is not part of their embodied cultural capital that they can read emails from a 'very small' screen of a cell phone, so much that they do not allow themselves to explore their cell phones more, had they done that, they could have realized that one can in fact 'zoom in' and enlarge whatever text they are reading, and that with some Smartphones, one can actually set a preferred font size. Apart from this, it is not in their habitus that in the digital era, it matters what kind of a cell phone one has. Therefore, while all academics in the study do have cell phones, the extent to which most of them understand their phones is very minimal, and because of their dispositions, this does not really bother them.

5.2.2.3. Computers or laptops connected to the Internet

Second to cell phones, computers have become some of the most used digital technologies in the globalised economy, both at work and home. These days one could hardly get into an office and not see a computer. This is due to the fact that in the globalised economy, more and more businesses happen online with no necessity to go from home to work. This being so, it has been an outcry of educationists that computers have not been received well in education. Particularly so, most teachers have studied during the time when learning was predominantly teacher-directed, and those who studied during that time have acquired those ways of teaching. They have developed dispositions that good teaching has to be the way they were taught. This is problematic in that as it is the demand of today's economy to use computers, it is hard for learners to cope in the work place as they face computers and have to work with them. It is therefore important to understand academics' dispositions towards computers and how they use them if they do.

In an effort to understand academics' DIds, they were asked if they had computers and/or laptops that are connected to the Internet, either at work or home, or both. The results are illustrated in below;

Percentages of academics with computers connected to the Internet both at work and home

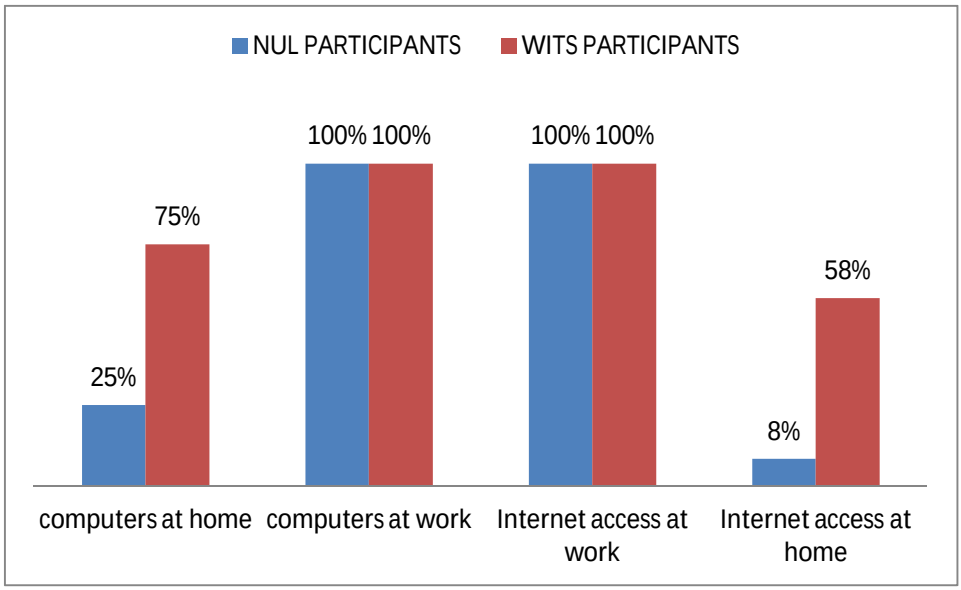

Figure 4.

- All the participants in both universities have computers connected to the Internet at work
- 75% of Wits participants have computers at home, while 25% of the NUL have computers at home
- 58% of Wits participants have Internet access at home, for the NUL it is 8%

Analysis

From the above findings, it is clear that there is an idea within governing bodies in both institutions about DTs being part of the way of life today. Regardless of their differing backgrounds, both institutions do understand that the habitus of the field of education needs to involve the habitus of the global economy (which involves the use of DTs), as all the participants in the study have computers connected to the Internet in their offices. This could be seen as the first step towards changing the rules of the field, or the habitus of the field towards one that involves the use of DTs. However, there is a very big difference in how these computers are being used; some resulting from lack of formal training discussed above,

as well as the bandwidth; this is more evident at the NUL. This takes us back to Bourdieu's *capitals* as it is evident that global economists are transferring their objectified cultural capital in the form of computers to the field of education, but because agents participating in this field do not possess the same embodied cultural capital towards the use of DTs as them (global economists), the objects (computers) do not mean much and are considered unnecessary to the field, as well as the academics.

In addition, there are some challenges that are still faced by both the field and the academics, which mostly result from the habitus (background) of each institution. This habitus still has a major role in shaping academics' DIds. For instance, academics from the NUL complain that their internet is very slow, and that it takes them forever to open anything on their computers. All academics said they were all very delighted when the university got them the computers, but then it took them forever to connect them to the Internet. After getting them all connected, they thought the university would provide them with training, but it never did. Out of 27 questionnaire respondents, 22 said they would like to go for computer literacy training, and all of them said they would like for the university to pay for such training. During the interviews, participants said they would not pay for such training as their salaries are not enough already, and that if the university provides for such training, it would mean that the university would give them time off, and that if they organized the training themselves, they would not get the time off to get the training. As a result of this luck of training, most of these computers are gathering dust in the offices because they are not being used. Even those who use them, it is for very limited purposes that are discussed in the following sections of the report.

For Wits participants however, it is a different story, for instance; there is Computer and

Network Services (CNS) at the School of Education where this research is based. CNS provides technical support and maintenance of DTs. There is also a technician on standby all the time. However, there are also participants who never went for formal training, and as a result, some of them using computers the same way that the NUL participants do. This use of applications is shown in *Chapter 5.2.1.* Due to the prevailing habitus that does not necessarily involve the use of DTs, this group does not see a need to go for training as 'everything is fine', and because of this old habitus, even those who went for training, are still not using the computers in ways that are considered consequential to education.

On their perceptions about the computers in their offices the academics in both universities stated that it was a very good initiative for the universities to get them those computers as they enhance learning. One academic from the NUL said; "*they are good, and they prepare learners for the work place, but we cannot use them effectively because we do not know how. This is a waste; if they don't give us training, how are we supposed to use them? The training is very costly, but the university can afford it"*. Another academic in Languages said; "*I teach Phonetics and Phonology, there is a lot of material on the Internet that can help learners, but the Internet is so slow, now how am I supposed to download anything if it takes forever? We still use the tapes and play them on the radio, but they are very old... there are so many clips on pronunciations on the Internet, but when you play them, they take forever, they always have a problem..."*. A participant in the department of Philosophy however was very adamant that there is no amount of teaching that a computer can do; "*they cannot do what I do, you need to know your learners and plan everything based on that knowledge. You tell me how a computer is going to do that..., finding some materials yes, but teaching, no."*

Due to the scope of this study, I could not get to discover what really goes on in the

departments of Philosophy in general as my attention was drawn to how similar the attitudes of academics in these departments in both institutions were. The fact that this last response is very much similar to the ones in the same department in both institutions may suggest that academics in these departments are the ones to really worry about when it comes to the rejection of DTs. Five academics in Philosophy in both universities (three at Wits and two at NUL) had very similar attitudes and perceptions about computers and the Internet. Even though the question was about their views on the computers in their offices, all the academics wanted to make one thing clear; that the computers cannot replace their teaching. This would have much to do with what and how they were taught in school maybe? Regardless, most of what has been said in this report about habitus is more evident in these departments; academics in both universities, regardless of differing backgrounds and everything, seem to have the same attributes concerning teaching and the use of DTs in the field of education, and they are all against it. I think further research needs to be done to discover this and make a deeper sense of it. It is also worth mentioning that academics in these departments are within the last age group (see *Table 1*) of participants used in the study. This again proves Bourdieu's theory that the longer the time spent acquiring habitus, the longer or the harder it gets to change it. The length of time these agents have spent operating in the field of education has resulted in shaping their DIds in a very negative way towards the use of DTs in teaching and learning.

5.2.3. DTs' Applications and Resources

So far I have tried to show that categories of habitus do have a lot to do in shaping the DIds of academics, as well as implications for teaching and learning. This part of the report findings seeks to find out the types of applications that academics use, as well as what they use them for. In this report, academics were asked about; email accounts and social

networking sites. These were both the findings from questionnaires and interviews. The responses are shown below;

5.2.3.1. Email accounts

Wits and the NUL academics with email accounts

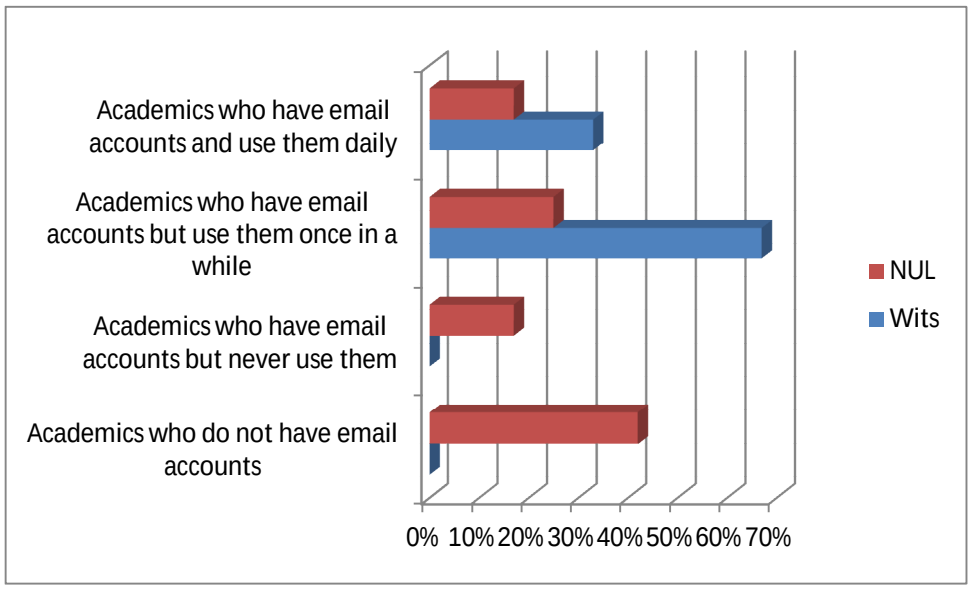

Figure 5.

- 42% of the NUL academics who participated in this study do not have email accounts, whereas 0% of Wits academics who participated in this study were without email accounts
- 17% of the NUL academics do have email accounts but never use them, while for Wits participants it is 0%
- 25% of the NUL academics have email accounts but use them once in a while, while for Wits participants it is 67%
- 17% of the NUL academics have email accounts and use them daily, while for Wits it is 33% of academics in the study who use their email accounts daily

Analysis

Based on these findings, it is clear that Wits has a much higher percentage of use of email accounts than that of the NUL. This would have much to do with the habitus of Wits as a field, as well as the habitus of academics as social agents participating in this field. For instance, the higher percentage of academics who do have email accounts and actually use them results from the fact that much of information and announcements are sent to academics through emails as compared to the NUL as the same information is collected by academics from the reception in the form of flyers and/or on the notice boards. 87% of the participants at the NUL blamed this on the university's very limited access to Internet connection. One participant said; *"the Internet here is not very good, it's always off"*. Another participant said; *"Our connection is really bad, even when it is connected, it is very slow, it takes forever to open or send an email. You really need to have a lot of time and patience to work this thing"*.

It is therefore evident that for Wits academics, the habitus of the field that includes the use of emails to convey information has somehow familiarised academics to the use of this application. However, for the NUL participants, the habitus of the field has affected the use of emails negatively as much of the information is still printed out in the form of flyers and notices. Based on this, it is evident that habitus does have a hand in shaping DIds of academics, negatively or positively.

5.2.3.2. Social networking sites

Social networking sites have also become very popular in the digital era, especially among young learners of today. This is so much that they have become part of the new habitus that involves the use of DTs. Such sites include Facebook, Skype, Twitter, MySpace and many others. There have been writers who believe that because learners of today spend so much time on these sites, and because some of the important aspects of life (including; politics,

economies of the world, as well as just socializing) are being discussed on these sites, it could be a very good idea if these sites could be used as platforms for teaching and learning. Facebook provides features like Fan pages, Group Discussion boards, Chat, as well as Facebook documents which allow educators to share instructional materials (courseware) with their learners. Facebook itself provides guidelines on how to use its platform for teaching and learning. It was therefore important to study how academics use of these sites (if they use them), and how they feel about using them. The responses of academics are illustrated in below;

The percentages of academics on social networking sites

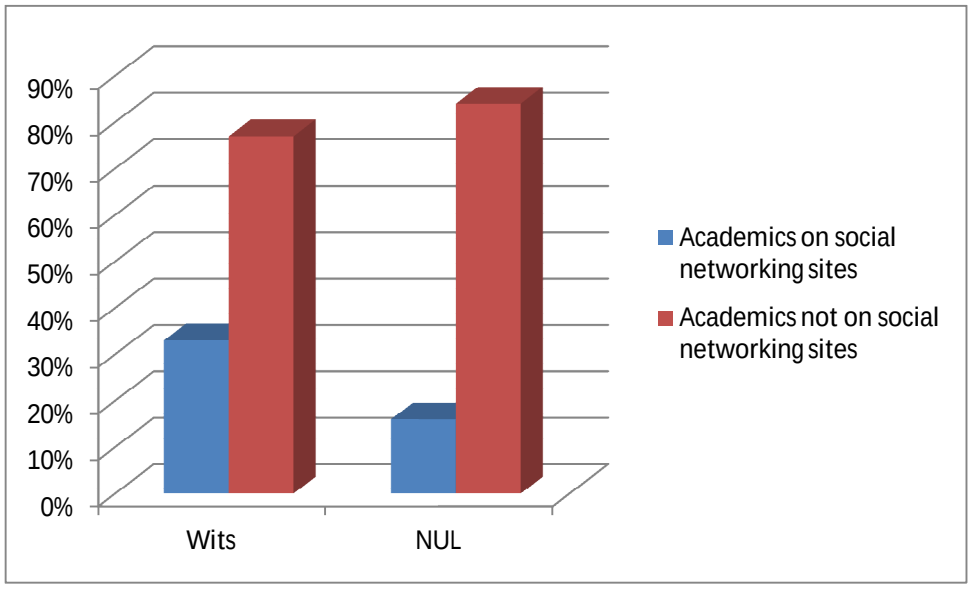

Figure 6.

- 16% of the NUL academics who participated in the study are on social networking sites; while for Wits academics who participated in the study it is 33%
- 84% of the NUL academics who participated in the study are not on social networking sites, while 77% of Wits academics who participated in the study are not.

Analysis

As it is illustrated in *Figure 6*, it is evident that the percentages at which academics from both institutions on social networking sides are very low. This could be explained in terms of habitus that is found in both institutions; even though the percentage of Wits academics is a bit higher than that of the NUL due to their differing backgrounds, 33% is still very low, which is the result of the sites being part of the new habitus. These sites are said to be some of the cheapest, yet very effective ways of communicating, especially in the digital era. However, because they were never part of the old habitus, the reaction is very low and most academics are still uncertain about their safety and privacy.

Of the 16% of the NUL academics who are on social networking sites, one said she is on Facebook and Twitter, and that she socializes with family and friends. She also said there is no one from work among her friends on this site. She however said she does not socialize with her learners on the sites as she wants to keep her private life that way. In addition, she does not think there can be any form of learning on these sites; *"I don't think there is any learning that can take place on Facebook. Do you know how many of these kids are on Facebook? Once you tell them to learn on Facebook, they are going to press their phones all the time and pretend to be learning... Gosh! They will even switch their phones on in the classroom..."* She checks and updates her profile daily as she wants to keep up with her friends, but they never discuss anything work-related except for how long their day was or how unhappy they are with their jobs. The others in this group said pretty much the same thing, except for that they only check and update their profiles once in a while. One of them said she does not have many friends on Facebook as most of her friends are teachers and teachers do not normally have that much access to computers, or the luxury of spending time on them. All the people in this group are between the ages of 36 and 45 (see *Table 1*), which is the youngest group of the participants.

The 33% of Wits participants in this group are also on Facebook, Twitter, and some are on Skype. They are also under the same age ranges with the NUL participants in this group. However, most of them use Skype to communicate with family and friends overseas as they are from countries other than SA. While they too socialize with friends and family, they also socialize with people from work. However, like the NUL participants in the same group, they do not socialize with learners on these sites, and while some of them think there could be some form of learning and collaboration on some of these sites, they say it needs a lot of time and supervision as learners can easily go astray on these sites. This again goes back to the

issue of habitus; because the use of these sites has never been part of their everyday lives, their old habitus holds them back from exploring them further, otherwise they would know that there is a way in which they could use these sites for educational purposes, yet they could still keep their private lives from their learners.

The 84% and 77% of academics from the NUL and Wits who are not on social networking sites say they never felt a need to be on these sites. Some say these sites are full of youth who are full of nonsense, and that if they need to communicate to their family and friends, a phone call is always easier, precise and quicker. What is even more interesting about this group is that they all fall under the same age ranges (46-56+), and even though they are from different institutions and countries, with different socio-cultural backgrounds, they all have the same reasoning when it comes to most things, especially as to why they are not interested in joining the sites. Most of them also claim that no one their age is on those sites, and that if they risk it, they might end up being friends to the youths with whom they have nothing in common. Another point of concern in this group about the sites is that they do not see why they should put up their rather private lives on public eye like that. Some of them are even concerned about putting their full names public for strangers to see as there is so much crime that happens in 'those machines' (referring to computers and the Internet). In addition, these are the same participants who do not use other applications such as emails, and who do not see how a computer can do any better job than them when it comes to teaching and learning. They are also the ones with the longest years of service as educators, which also means that due to the length of time they have spent in the field of education, they have developed dispositions about teaching and learning that does not involve the use of DTs and see them as ‘improbable practice’.

One participant from Wits said; *"I used to be on Facebook but I've deleted my account. I didn't have many friends anyway..."* This participant said he did not put his real name because he is very cautious about whom he gives his personal information to. He said he opened the account just to 'check it out'. The question is; if you do not put up your real name on a site that is meant mostly for connecting with people you know, how is anyone going to recognize you? There could be people who would have been friends with him had he put up his real identity, and for the same reasons that he has about caution, most people on these sites do not just be-friend someone they do not even know. Furthermore, in order for one to have a meaningful social life on these sites, one needs to be very active on them; read friends' updates and comment on them, and put their own statuses so that friends could comment on them and have some discussions, otherwise becomes meaningless as people respond to those who respond to them. It is not too farfetched to say that relationships on Facebook and other sites are not very different from Castells' explanation of what it means to be part of the networked society; one needs to participate and stay active in the networked society, otherwise they get switched-off, which also strengthens Bourdieu's point that the closer the agents, the more similar their attributes.

What can be said here is that; based on this group's age ranges, what Bourdieu's theory of habitus says is true; academics have developed long-learned dispositions about teaching and learning, as well as a way of life that does not include the use of DTs, it is therefore hard, and almost impossible for them to switch to the new habitus. This is also strengthened by some of the literature used in the study that it is within the oldest groups of people that one finds the least interested when it comes to the use of DTs. It could also be said that Bourdieu's theory of habitus plays major role here in explaining the dispositions that academics have of social networking sites; for these academics when growing up, it was not in their habitus that

sometimes you just have to put yourself out there for the world to see you. They grew up around communities where the intimate modes of socialization were prevalent. They did not acquire this from childhood, rather, they grew up where people protected their identities, they have already developed these dispositions about their identities, and as the theory says, it is not easy to accommodate this new habitus that is prevalent in the digital era. In order to understand these perceptions and behaviours of academics towards DTs and their applications, it is important to look at socio-cultural backgrounds and the role they have played in the formation of these dispositions. The following part looks at the socio-cultural backgrounds of academics.

5.2.4. What role do socio-cultural backgrounds play in shaping the DIds?

As literature shows, there is a very strong correlated relationship between socio-cultural backgrounds (habitus) and identity. Bourdieu argues that everything that surrounds us from childhood shapes our dispositions about life, even as adults. It is important therefore, to see where the attitudes and thought of academics about DTs came from, and factors that have shaped them. To do this, the report uses Bourdieu's forms of capital; cultural, social and economic capitals as these are some of the most important aspects of who people are, and could be found in any society. Academics who participated in this study come from diverse socio-cultural backgrounds, in fact, within each university, academics have differing backgrounds, and the two universities put together, they become even more diverse.

5.2.4.1. The cultural Background

To answer the question of cultural background, the participants were asked about; age, gender, and educational background.

5.2.4.1.1. What role does gender play in the formation of DIds?

Gender plays a very big role in African societies as there are still some communities where there is a very distinctive line drawn between what males do and what females do. Primitive as this maybe, there are still people in the professional world who came from these kinds of societies, and they still view certain things as entitled to certain gender. The purpose of looking at gender in this report was to see if academics have dispositions toward DTs that it is only a certain gender which is more entitled to use them (DTs) than is the other gender. However, from the respondents on the questionnaires, there is no significant difference in both males' and females' use of DTs.

The number of males and females interviewed in the study

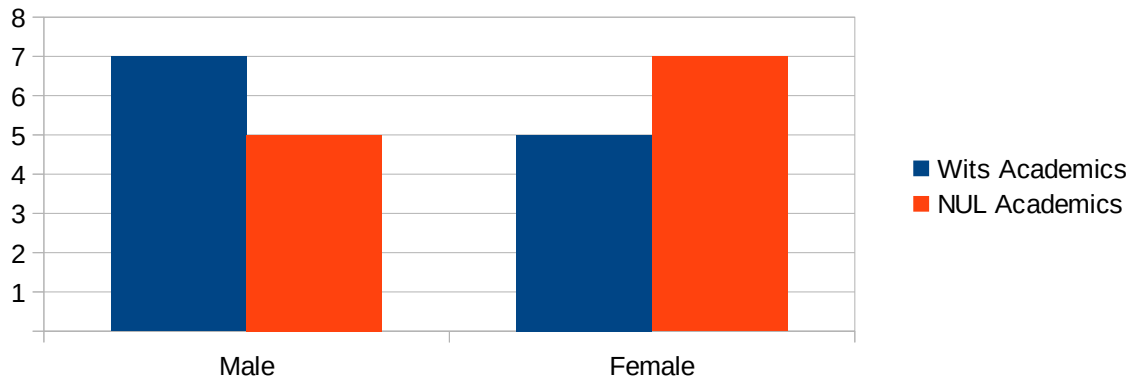

Figure 7.

- Wits: 7 males and 5 females
- NUL: 5 males and 7 females

In this study, there is no significant difference between males and females when it comes to

their use of DTs as both males and females in each university use and or/reject DTs the same way, regardless of gender. However, the differences in use are more distinctive in other aspects of culture as shown below.

5.2.4.1.2. What role does age play in academics' use and/rejection of DTs?

Different ages of the academics used in the study in both the universities

Age Ranges of Academics	Wits Participants	NUL Participants
25-35	1	0
36-45	4	3
46-55	4	3
56 & above	3	6
Total	12	12

Table 1.

Analysis

The purpose of choosing participants with these varying ages was to see if age as a category of habitus plays any role in shaping academics' use and/or rejection of DTs as well as dispositions they have towards them. As it has been seen in *Chapter 3*, there are researchers who claim that age does play role in who uses and appreciates DTs, this has also been evident in the previous part of the analysis in the report. Bourdieu's concept of habitus also implies that this is be possible; it argues that the long-learned/acquired dispositions are hard to get rid of, and that it is hard for individuals to make way for new dispositions. Bourdieu also argues that the longer the time spent in the acquisition of these dispositions, the harder it is to get rid of them. If it takes time to acquire these dispositions, it would mean that it is the younger participants who are likely to use DTs as they have not spent as much time acquiring the

dispositions shared by the older participants as the older participants.

Indeed the findings in this report do qualify these claims to quite a larger extent as out of the 12 participants at Wits, 5 participants whose ages range between 25 and 45 are the only ones who claim to have the most recent DTs (such as Smart-phones) and use them accordingly. Participants over the age of 45 however, claim to have regular phones, and that they do not see any reason to carry 'fancy phones' while all they do is to make and receive calls and SMSes. Even those participants who do have Smartphones and are over the age of 45 still use these phones for the same purposes of making and receiving calls. In the previous parts of the analysis, the participants who were reluctant to use ICTs and their applications are the ones under the last age group. This strengthens Bourdieu's argument that the long-learned dispositions are hard to get rid of, or even just to make way for new ones. As a result, this ends up creating a tension between the old and the new habitus. Therefore, even though the governing bodies in both institutions are trying to change the rules of the field to make way for the use of DTs, the length of time that participants in this age group have spent operating the field does not make it easy for them to welcome this change in the field.

It is therefore evident that age as a category of habitus does play a role in shaping academics' DIds, and this has implications on teaching and learning, both negative and positive. Depending on the time (which is mostly determined by age) spent by agents in the field, agents will either reject or embrace the use of DTs.

5.2.4.1.3. Educational Background

The purpose of looking at academics' educational background was to see their levels of education, as well as their views on the methods of teaching that were employed when they

were taught and how those methods have impacted on their own teaching. Literature in the report has shown that most teachers find it difficult to employ new methods of teaching required by the digital era because most of them still believe in, and teach the way they were taught. The reason for this being they had been taught that way for a very long time and have developed dispositions that they should teach the way they taught, it has been in their habitus for so long and as we have seen from the literature, it is difficult to change someone's habitus, mostly because it is part of who they are. Below is an illustration of the highest levels of educational degrees that academics from both universities have (gathered from the questionnaire, these were the participants who were selected for face-to-face interviews;

The highest levels of education the academics have

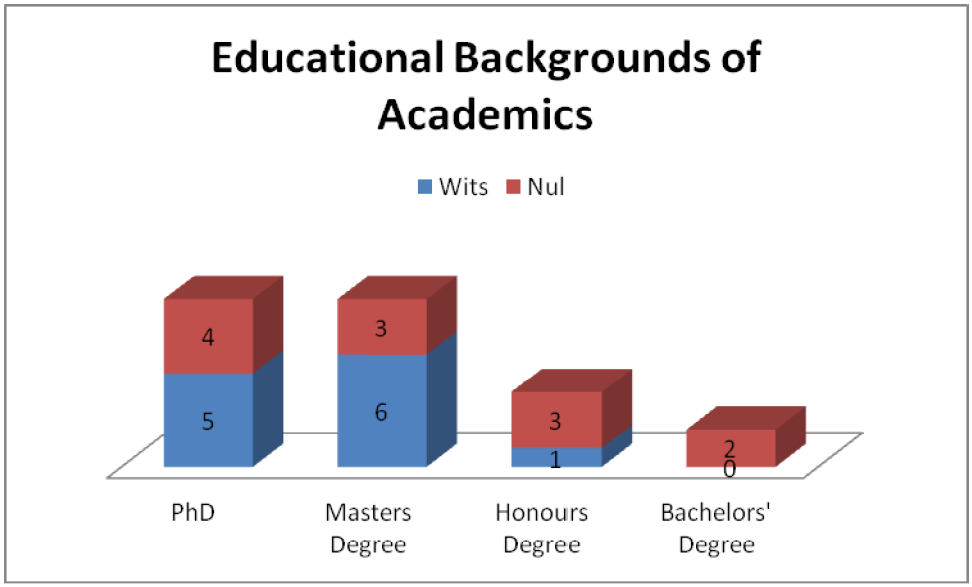

Figure 7.

- 5 Wits academics in the study have PhDs, while for the NUL it is 4
- 6 Wits academics in the study have Masters Degrees, while for the NUL it is 3
- 1 Wits academic in the study has Honours Degree, while for the NUL it is 3
- 2 NUL academics have Bachelor's Degrees

Analysis

Regardless of the locations of the two universities, there is no much difference in the academics' levels of education. During the interviews with the academics, it was found out that educational background and experience do play a role in the shaping of academics' DIds. However, this was not in a positive way at all. For instance, the higher the qualification, the more the academics are resistant to DTs. Out of 9 academics with PhDs in this study, only 1(from Wits) said she uses DTs in her teaching, this is not necessarily in a very consequential way towards education as she just uses Ms PowerPoint to cover large class sizes (see *Chapter 5.4*). Another 1(from the NUL) said he could give it a try and believes they can produce better results as they could cover all learners in large class sizes, but complained about lack of resources such as projectors in the classrooms. The remaining 7, interviewed at different

times and places, argued strongly against the technologies bringing better educational results. Some academics in this group (PhD) argued that DTs will never replace his teaching, another said DTs were built by people, so there is no way in which they could perform a better job than a person, especially in teaching and learning. Some argued that teachers are becoming lazy as they expect computers to do their jobs for them, but he has never tried them. These were varied responses that were found in the two universities, and most of them were in the departments of Philosophy as discussed above.

There were mixed opinions among the academics with Masters Degrees and below regarding the effectiveness of DTs as some argued that they could be really effective if they were implemented correctly. For the NUL academics in this group as well as other groups, they argued that there is no training provided by the university on how to integrate DTs in their teaching. However, for Wits participants the general feedback was that they do use them if and when necessary such as for emailing work to learners, or giving assignments to learners to do research on the Internet.

All the participants with PhDs in the study were in the eldest group of all the participants, and most of them studied in the 1960s where there were no computers in schools, and they were all taught in teacher-directed classrooms where there was not much collaboration and participation in the part of learners. They listened and took notes from their teachers, so they find it easier to employ such methods as their teachers' in their own teaching. They did not have any form of training on computer use and have no idea what some of the applications are in a computer. One participant from the NUL in this group exclaimed; '*sometimes you could swear there is no x* (referring to the letter 'X') *on the keyboard! you look and look, then you see it's actually here…'* this again shows the level of even some basic understanding of

computers within some of the academics. In the end, even though the universities have provided the hardware, they have failed to address other issues of access discussed earlier in the report. It has been argued in the report that access is not just about having computers connected to the Internet, it is also about having the knowledge of how to use them effectively; looking for the right information and the ability to analyse it in a meaningful way. This training is necessary if academics' old habitus about teaching and learning is to be changed. In addition, since these academics have spent most of their professional lives acquiring dispositions about teaching and learning that did not include the use of DTs, they need an on-going training that would help them acquire new attributes about teaching and learning that involves the use of DTs in the digital era. Even the younger participants in the study who claim to use computers, they still do not use them in ways that they were meant to be. None of the participants in the study has been in a computer integrated classroom, so even for them as well; it is hard to get away from ways in which they were taught. In the end, they are reproducing a generation of teachers who are still going to teach the way they were taught, which does not address the demands of the new economy.

From the above considerations, it is evident that educational qualifications as a category of habitus, depending on when they were obtained, do affect academics' formation of DIds. It is also evident that ways in which academics were taught do have an impact on how academics conduct their own teaching and learning as professionals. Moreover, because of ways in which these academics were taught, they do not possess the embodied cultural capital about teaching and learning that involves the use of DTs, and this calls for an in-depth institutional capital that includes the use of DTs in teaching and learning.

5.2.4.1.4. Social background

In order to get a clearer view on academics' background, they were asked to explain the kind of communities in which they were born, raised and educated. This was then categorised into different social classes found in every community; working class, middle class, and upper middle class. The findings from academics in each university were as follows;

Academics' social capital

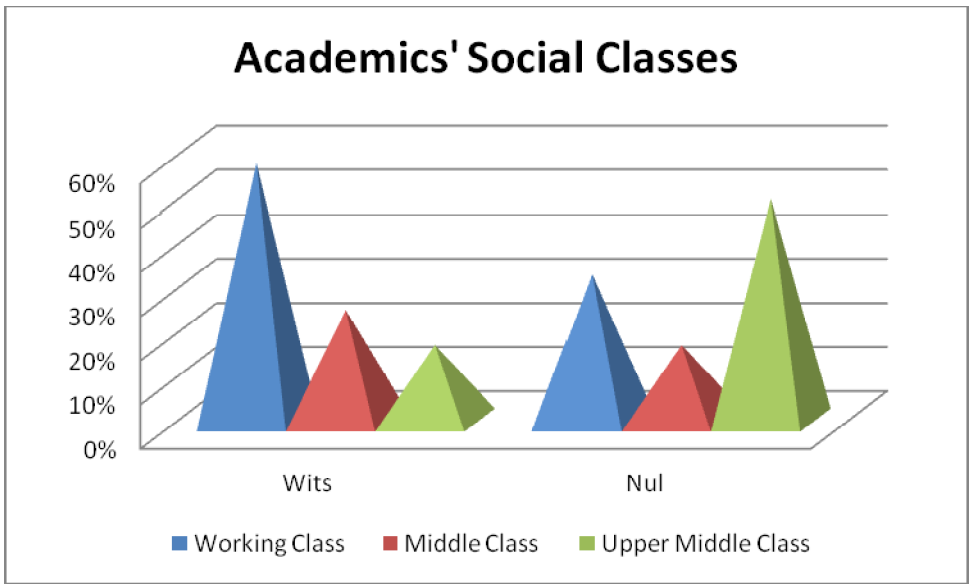

Figure 8.

Analysis

The reason for looking at social backgrounds was to see situations and circumstances in which academics were brought up, and to see if these have anything to do with their views and attitudes towards DTs. 58% of Wits academics who participated in this study were born, raised and educated in working class families, surrounded by working class communities. Some of these academics claim that their parents worked in factories within and around Johannesburg, while some parents worked as domestic workers for middle and upper class families around their home-towns. Some of these parents were adamant about their kids' (now academics) education. The reason being they wanted a better life for them than those they themselves had. One academic whose parents were working for a family in

Johannesburg claims that the family was so good to them that they paid for his education as well as for his four siblings'.

From these findings, it is evident that a very high percentage of Wits participants came from working class families. This being so, it would mean that their habitus revolved around the working class communities who did not have much of objectified, as well as embodied cultural capital that included DTs. One could also assume that based on the communities in which they were raised, the kind of primary as well as higher primary education they got was not in line with the one that those raised in the middle and upper middle classes got. It is also logical that they did not have as richer social capitals as those in other classes, which most of them say it is the reason why they ended up as educators because their teachers were the only role-models they knew.

The 25% and 17% of academics who were brought up in middle and upper-middle class families have better stories to tell as they went to better well-to-do schools, surrounded by the communities of the same calibre. Their parents either worked in offices or owned companies. In their societies they claim, there was no need to stress the importance of education as it was something like a norm to go to school, do well and get a good job. They knew the rules of the game. This is in line with Bourdieu's theory of habitus; Bourdieu (1979; in Belland, 2008), argues that the totality of life conditions influence one's habitus, and that people who share in common many life experiences tend to have similar habitus. It is not surprising that people from same communities have similar attributes. What is even more interesting about this group as compared to the working class one is that academics in this group chose to be educators because they wanted to be, they had other choices as they did well and had more informed social capital, but still chose to be educators, and are happy they did.

Even though academics at Wits come from three extreme backgrounds, this did not seem to have much to do with their use and/or rejection of DTs in their teaching and/or everyday lives. Most of them, even though they went to different schools with different standards, were taught in traditional or teacher-directed teaching methods. This seems to have impacted on their attitudes than their economic and societal differences as all of them claim to have never been taught in DTs based systems. Regardless of these academics' economic privileges when growing up, because they were not socialized into being taught in DT integrated education, they are not able to easily run away from that and start something new, as they are comfortable with old ways of living. Even those who venture into using DTs, as soon as they encounter difficulties, they switch right back to the old habits.

The findings in the two universities were quite surprising as the socio-cultural backgrounds in the universities were not what was anticipated before conducting the study. For instance; 50% of academics from the NUL come from upper middle-class families as opposed to the 17% of Wits academics. This also goes back to Bourdieu's theory of habitus; the higher number of the NUL academics from upper middle-class families as opposed to the working class, shows that it was those who had economic capital in the country who actually had any chance of success. They were from well informed families, and as a result were able to go all the way. However, given the economic differences of the two countries, I expected the findings to be the other way around when it comes to academics in both institutions. But then again, there is a certain habitus within middle to upper-class communities that teaching is not 'a good enough' profession, as a result, children from well-to-do families choose other careers.

The 50% of the NUL academics from upper middle-class communities claim that their

parents had better jobs, most of them working outside the country, while some headed international companies. However, at the time they grew up, teaching was considered one of the best and respectable professions in the country, and this was part of the habitus within and among these communities. Their parents were very strict and adamant about their education. They went to better schools with better results. They also claim that they were raised in very competitive communities where parents took pride in their kids' education. The 17% who grew up in middle class families had quite similar stories on issues surrounding their living and educational histories. However, the 33% of academics who grew up in working class families have differing stories all together, so much that it would seem as if they were not in the same country as the other two groups. Their fathers worked in SA mines and came home once in a while, while they stayed with their mothers who mostly had no education and were housewives and stay-home mothers. Some fathers worked as farmers who grew crops and reared cattle and sheep as their full-time jobs. Talking to this group, most of them claim that their parents stressed the importance of looking after their flocks and working on the fields. One of them said he changed days with his younger brother; he went to school three times a week, and looked after the flocks and the fields two times a week. However, he did so well at school that his then school principal had go to his home and talked to his parents about letting him attend school full-time. They listened, which was bad news for the younger brother who was not doing so well because he had to drop out of school and do the farming full-time while the older brother went on and now has a Ph.D.

However, in both the universities, these aspects of social and cultural background do not seem to have impacted as much on their use and/or rejection of DTs as other factors. What seems to have had much impact is the fact that regardless of their upbringing, DTs were not used much in their time, especially in their learning, which for some this poses much

difficulty in using these technologies. This issue of teaching and learning is explored in the following part of the report.

5.2.5. How do these identities influence and/or affect ways in which the academics conduct their teaching, and learning?

As the findings in the report show, academics have different views as to which DTs they have and what they use them for on daily basis, which is their DIds. This part of the report shows findings on how the DIds influence and/or affect ways in which academics conduct their teaching, and learning. According Belland (2009), teachers' practices have also been explained by their habitus as they represent what pre-service and in-service teachers unconsciously "know" about teaching from years of experience as students and teachers. The 12 academics in each university were asked if they used any DTs in their delivery of instruction. This is illustrated in below;

The percentages of academics who use DTS in teaching and learning in each university.

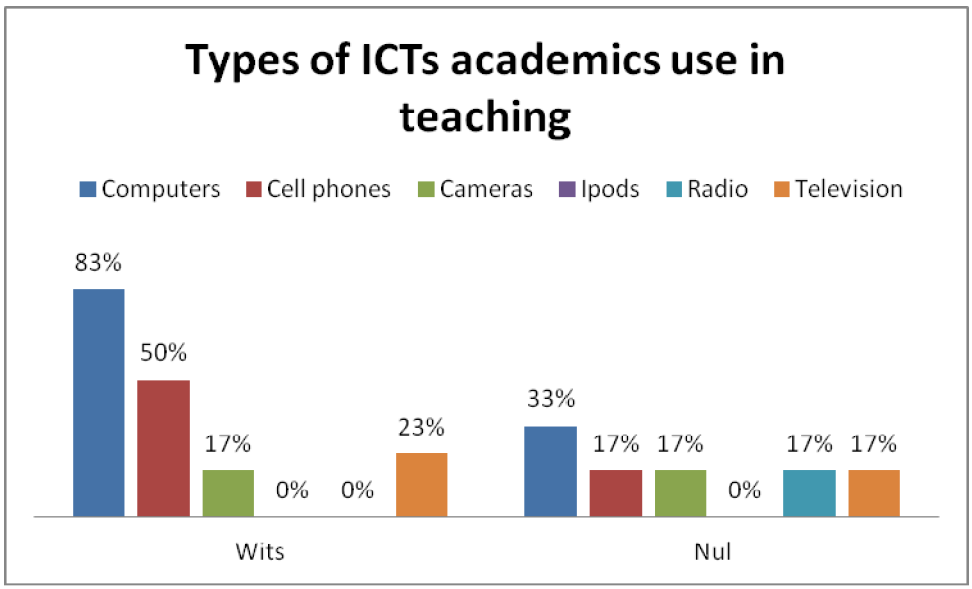

Figure 9.

- 83% of Wits academics in the study use computers, while for the NUL it is 33%
- 50% of Wits academics in the study use cell phones, while it is 17% for the NUL
- 17% of Wits academics in the study use cameras, and it is also 17% for the NUL
- 0% of Wits academics in the study use radios, while it is 17% for the NUL
- 23% of Wits academics in the study use television, while it is 17% for the NUL
- None of the academics in the study uses iPods in both universities

Analysis

From these findings, even though it is clear that Wits academics use computers much more

than the NUL academics in teaching and learning, it is evident that the DTs used most in both universities is computer. The similarity in the use by academics for both the universities is the use of PowerPoint application. Academics from both universities argued that they use PowerPoint to reach every learner as some have learners numbering over 300; they therefore use this application to cover these learners. The other application that is used by most academics if not all is Ms Word. The academics say they use this application to type notes that are then given to learners to study. In addition, most academics from both universities in this group also use Ms Excel to keep records of the learners. However, Wits participants use emailing to their learners much more than those at the NUL. They use this application to send work to learners, as well as feedback and important information.

Based on these considerations, it is evident that even though academics have been provided with the computers as a form of objectified cultural capital, they lack embodied cultural capital necessary for them to be able to use these objects effectively, which takes us back to the lack of institutional capital (training). It is also worth noting that because of their educational habitus; even those who have been trained still use these facilities in teacher-directed methods which is evident in their use of PowerPoint to present notes for learners to copy for instance.

Furthermore, 50% of Wits academics in this study use cell phones to communicate to their learners. As they claim, they sometimes send SMSes or call learners about meetings and important announcements. However, all these academics are teaching postgraduate students and are supervising most of them in the learners' projects. When asked why they use this service, they said it is faster, and enables them to convey a precise message they intent to.

The 23% of Wits participants who use television said they play educational videos for learners on some topics of their courses. Some of these academics are in languages, and they sometimes have videos that learners need to see. Some said they ask their learners to watch some programmes on television (such as the ones in which there are some debates). They say this increases learners' communication skills, as well as development and support of their arguments when they are writing.

The 17% of the NUL academics who use radios said they use tapes for learners to listen to. These academics are also in languages, and they say learners need to listen to speech production tapes. They claim these are quite useful as their learners specialize in production of speech sounds. However, as they claim, these tapes are outdated and would like to have contemporary ones, but they are normally very costly, and most of them need learners to have their own computers, which is not the case at the university. Because of the slow Internet, these academics are not able to find so many resources that could be helpful in the subject of languages. For instance, there are so many videos on YouTube on speech production that both learners and academics could download and listen to. However, because of the unreliable Internet connection, they are not able to.

From the above findings, one can conclude that habitus of the field, as well as habitus of academics in each institution, has affected ways in which academics view and relate to DTs, as well as how they use them in teaching and learning. In addition, even though there are variations, regardless of different backgrounds, both universities have been mostly affected by ways in which they have been taught, and this affects their DIds.

Chapter 6

6. Conclusions and Discussions

Through the use of Bourdieu's theory of habitus, this study was intended to discover how technological habitus affects formation of academics' DIds with regard to teaching and learning. Even though the study is small and in no way suggests that the findings are representatives of all Southern African academics, or all the academics in the universities involved, the findings do bring to light some of factors that are claimed to shape the DIds of academics. Based on the findings above, it was concluded in the study that the following categories of habitus do play a considerable part in the formation of academics' DIds and ways in which they conduct their teaching and learning.

6.1. What are the DIds of academics?

Computer Literacy and Training

The findings in the study strongly suggest that computer literacy and training play a major role in shaping the DIds of academics. This is more evident at the NUL where most of the academics did not get adequate training in computer use. Even though Wits academics do have some form of formal training, ways in which they use DTs suggest that perhaps the training provided by the university does not address some important issues pertaining academics' use such as their individual socio-cultural backgrounds. This results in academics who still use DTs in teacher-directed ways regardless of the provided training. Even though all academics in both universities do have computers in their offices, because of lack of training these computers are not being used, even those that are used are not used to their full potential.

6.2. Choices of DTs and Applications

Resulting from lack of training and understanding of DTs, even though some academics do have the latest DTs, they do not use most of the applications in them. This could be seen in academics in the study who own Smartphones but have no idea what some of the applications in them are for. This could also be seen in academics who never use their Smartphones for any other purpose than making and receiving calls. In this study, computers and cell phones have been the most favourable DTs of choice for all the academics from both universities. One would assume that this is due to these DTs being easily available to the academics.

However, due to the habitus of the field, and the habitus of those operating within it, academics at Wits have been found to be using DTs more than the NUL academics. This is more evident in the use of applications such as email accounts. Being one of the most regularly used applications in the world, it is alarming to see that almost none of the NUL academics in the study uses email accounts. This is evident in many ways including the fact that during the questionnaire stage, I was advised to go to the NUL in person to deliver the questionnaire, and even in the interviews, most academics claimed not to have or use email accounts. This results from the habitus of the field; even the university itself prints out information in the form of flyers and or board notices rather than emailing it to the academics which would help them to see urgency to check their emails regularly. Another application that seems to be favourable for academics is Microsoft (Word, PowerPoint and Excel). All academics who claim to use ICTs in both universities also said they use these applications. They use Ms Word for typing notes for their learners, which they print out and give to learners or use PowerPoint to present the notes and cover large class sizes. Academics do also claim to use Microsoft Excel to keep learners' records.

From these choices of DTs and applications, it is clear that even though academics do have and use some of them; they are in no way close to using these applications in ways that are consequential to education. There is no participation in the part of the learner, which means they are just receiving what is being given to them as if they are not capable of discovering this themselves. We do not see from these findings, learners who are being encouraged to finding and processing information on their own through the use of DTs, as a result, they are going to continue even as educators themselves, to teach the way they were taught. In the end, the lack of understanding in the part of academics, as well as their habitus, has affected the formation of their DIds as well as how they use DTs in teaching and learning.

6.3. What role does habitus (socio-cultural backgrounds) play in shaping the digital identities in both universities?

Age, Social class, and Educational levels

It has been argued in the study that age, social class and levels of education represent habitus, and that these factors also have influence on each other, as well as on the DIds. Findings in this study strengthen theories that age for instance, has much impact on academics' use of DTs. This is more evident in the number of academics in the last category of age (see *Table 1*) who have the lowest percentages of academics who are reluctant to use DTs. These academics do not see a need to learn and work with DTs as well as integrating them in their teaching and learning. They are also the ones with the highest levels of academic qualifications (PhD). In addition, the academics in these categories also come from the working class families and communities. These different categories of habitus seem to have had much influence in shaping the academics' DIds in both universities regardless of their differing locations. This is also in line with Bourdieu's theory of habitus as the academics' lasting durable dispositions about education as a field do not include the use of DTs. The time

that they have spent in the field has had much impact in how the field is operated, as well as everyday life that does not include the use of DTs, and so shaping the DIds that are negative towards this integration in teaching and learning.

Findings in the study also raise a concern that there is difference in use as well as in attitudes within different divisions in the field of education toward the use of DTs. This is particularly so in the divisions of Philosophy in both universities; it is not a coincidence that academics from both universities, interviewed in different times and at locations in these divisions are all against the use of DTs. These academics also have the lowest levels of training (on DTs) if any at all. It is definitely a conclusion that different categories of habitus including age, social class, time at which academics studied, as well as levels of computer literacy have shaped the DIds of academics in this category negatively, as well as their integration in teaching and learning.

It is also evident from the findings that even though it is still in very low numbers, it is academics in the younger groups (see *Table 1*) who use DTs more, and also have the latest technologies. However, the low numbers of academics who actually have and use these technologies also suggest that the way they have been taught had the most influence on how they use these technologies in teaching and learning than their ages as they still use them in teacher-directed classrooms. Apart from this, it is also evident that academics at Wits, because of the location of their field and the communities by which it is surrounded use and understand these technologies more than the NUL academics. However, there is still a lot to be done in both universities if DTs are to be consequential to the field of education.

To conclude, academics are still reluctant towards the use of DTs in education. Different categories of habitus including age, educational level, social class, as well other

considerations of habitus do have much influence in the formation of academics' DIds, as well as their integration in teaching and learning. Even though the habitus of the field does have impact on the formation of DIds, findings in this study show that different categories of socio-cultural background in which academics grew up and studied have had even more influence in shaping their DIds. In addition, even though there is access to DTs in the form of computers and cell phones, the lack of indepth training on their use result in them being used in ways that are not consequential to education.

Based on the findings of this study therefore, the digital identities of Southern African academics are that they use computers for typing notes using Microsoft Word and print them for their learners. They also use Microsoft PowerPoint for preparation of slides to present to learners in teacher-directed classrooms, as well as Excel to keep the records of their learners. Some academics depending on the culture of their field use emails to send work and feedback to learners. Cell phones are also a digital technology of choice for most academics for making and receiving calls, some for SMSes. However, they do not particularly use them for teaching and learning, which results from their habitus as well as the habitus of the field of education that does not include calling learners. Habitus therefore has influence on academics' DIds which also affect their integration in teaching and learning, and in this study, teaching and learning has been affected negatively.

6.4. Recommendations and Further Research

Findings in this study show that the use of DTs by academics is very minimal in the field of education. It is recommendation resulting from the above findings that;

- There is a serious need for training in DTs in higher education. This training should

also include the use of DTs in ways that will benefit education.

- There is also a need for each institution to examine academics' individual socio-cultural backgrounds in order for this training to be able to be tailored in such a way that it will take into consideration each academic's needs in order to change their dispositions about teaching and learning.
- It is also important for governing bodies to provide this training as an ongoing practice so that academics will spent longer time engaging in activities that involve the use of DTs in teaching and learning, this way it will be incorporated in their habitus.
- Further research needs to be done that includes understanding of different divisions in higher education, as well as ways in which each academic's existing dispositions about teaching and learning in the efforts of helping them develop new ones that include the use of DTs in education.

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Appendix

A. PARTICIPANT CONSENT FORM FOR ACADEMICS

I _____, understand that participation of members of my staff in the faculty of Humanities at the University of the Witwatersrand in the study conducted by Mary M. Sekhohola, a student at the University of the Witwatersrand involves no risks associated with their taking part in it. Consent to participate is their willingness to answer questionnaire. Their identity will be kept anonymous and confidential, and any references to data obtained from them will be reported using a pseudonym. I understand that my staff's participation in this study is completely voluntary; they have a right to withdraw at any time from participating without any form of penalty. I also understand that data collected up to the point of withdrawal will be used within the study. Any information collected from this project will remain confidential and will be stored safely and will be destroyed after three years.

Signature of the Dean of Humanities _____

Signature of the research student _____

Date _____

B.

University of the Witwatersrand
School of Education
Division of Educational Information Technologies
Parktown
Johannesburg 2000
South Africa

09 July 2011

Ministry of Education and Training
P.O. Box 47
Maseru 100
Lesotho

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH FOR M-ED

Dear Sir/Madam

My name is Mary M. Sekhohola. I am a registered M-Ed student (327034) at the University of the Witwatersrand, in the Division of Educational Information Technologies.

As a requirement for completion of my degree I am required to complete a Research Project. I wish to conduct my research at the National University of Lesotho in the Faculties of Humanities and Education. My research topic is; "The digital identities of African academics - a comparison between the University of the Witwatersrand and the National University of Lesotho." I wish to interview academics in your institution in those Faculties in order to establish their perspectives, familiarity and use of digital technologies.

In order to get permission from WITS Ethics Committee, I need a letter of permission from your Ministry. I have already requested and received the relevant permission from the National University of Lesotho.

I kindly request your permission for me to conduct this research.

Thank you for your consideration.

Sincerely;

Mary Mamokoena Sekhohola (Ms)

Contact details;
Email - msekhohola@hotmail.com

C.

P.O. Box 3880
Randburg
2125

09 July 2011

Professor Tawana Kupe
Dean- Faculty of Humanities
University of the Witwatersrand
27 St Andrews Road
Parktown
2193

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH FOR M-ED

Dear Prof. Kupe

My name is Mary M. Sekhohola. I am a registered M-Ed student (327034) at the University of the Witwatersrand.

As a requirement for completion of my degree I am required to complete a Research Project. I wish to conduct my research at your institution in the Faculty of Humanities. My research topic is; "The digital identities of African academics- a comparison between the University of the Witwatersrand (urban) and the National University of Lesotho (rural)." I wish to interview academics in your Faculty in order to establish their perspectives, familiarity and use of ICTs.

I kindly request your permission for me to conduct this research.

Thank you for your consideration.

Sincerely;

Mary Mamokoena Sekhohola (Ms)

Contact details;
email- msekhohola@hotmail.com

D.

University of the Witwatersrand
School of Education
Parktown
Johannesburg
2000

5th July 2011

Registrar
The National University of Lesotho
P.O. Roma 180
Lesotho

Dear Sir/Madam

Re: Application for Data Collection at the National University of Lesotho

My name is Mamokoena Mary Sekhohola. I am a registered full time Masters student at the University of the Witwatersrand in the School of Education in the Department of Educational Technology (M-Ed Program).

As a requirement for the completion of my Masters degree, I need to write a Research Report and I wish to collect data from The National University of Lesotho in the faculties of Education and Humanities. My research topic is; Digital Identities of African Academics- a Comparison Between The University of the Witwatersrand and The National University of Lesotho.

I wish to interview academics in both universities to establish what academics use digital technologies for in their daily lives as this will help me get an idea of how and why academics use digital technologies in their teaching and/or learning.

In order to be granted a permission from Ethics Clearance Committee at The University of the Witwatersrand to go ahead with the collection of data I need a letter of permission from your institution specifying that you understand what I wish to do and thereby grant me a permission.

I would really appreciate your help and kindness in the matter. Please find the attached letter from the University of the Witwatersrand.

Thank You.

Sincerely;
Mamokoena Mary Sekhohola
Student #: 327034

E.

Participant Information Sheet for NUL & Wits academics

Dear Participant

My name is Mary M. Sekhohola. I am a registered M-Ed student at the University of the Witwatersrand in the Division of Educational Information Technology. As a requirement for completion of my degree, I am requested to to write a Research Report. My research topic is : “The digital Identities of Southern African academics – A comparison between the University of the Witwatersrand and the National University of Lesotho.” In this study, I wish to establish academics' perspectives, familiarity and general use of digital technologies.

I wish to invite you to take part in my study as a participant. First there will be a random questionnaire, followed by purposeful semi-structured interviews. I also wish to assure you that your participation is voluntary, you may withdraw from participating at any point without any form of penalty, you will not receive any form of payment for participating. I guarantee that anonymity will be used in the study and that information gathered from you will not be linked to you in any way as pseudonyms will be used. In addition, the study is only for the purposes of the degree and the final result will be submitted to Wits School of Education. The raw data will be kept in a safe place and will be destroyed after 3 years by shredding.

With your permission, I wish to send you a questionnaire and interview you in a semi-structured interview. The interviews will take place during November/December 2011. I will really appreciate your involvement in the study.

Thank you for your consideration.

Sincerely
Mary M. Sekhohola
msekhohola@hotmail.com

F.

"The Digital identities of Southern African academics - a comparison between the University of the Witwatersrand and the National University of Lesotho"

Questionnaire for NUL participants

Please note;

1 – Please type an 'X' in front of the answer(s) applicable to you

2 – You can choose more than one answer(s) if applicable

- What is your age group?

  a) 25-35 ( )
  b) 35-45 ( )
  c) 45-55 ( )
  d) 55+ ( )

What is your highest qualification?

Ph.D.	
Masters Degree	
Honours Degree	
Bachelor Degree	
Diploma	
Certificate	
Other (please specify)	

- For how long have you been teaching?

  a) 0-5 years ( )
  b) 5-10 years ( )
  c) 10-15 years ( )
  d) 15-20 years ( )
  e) 20+ years ( )

- For how long have you been with NUL?

  a) 0-5 years ( )
  b) 5-10 years ( )
  c) 10-15 years ( )
  d) 15-20 years ( )
  e) 20+ years ( )

Which year(s) of study do you teach?

a) First Year ( )
b) Second Year ( )
c) Third Year ( )
d) Fourth Year ( )
e) Postgraduate ( )
f) Other (please specify)_____

How many learners do you have in each lecture room?
(Please type-in the number)

a) First Year ( )
b) Second Year ( )
c) Third Year ( )
d) Fourth Year ( )
e) Postgraduate ( )

Do you prefer a particular teaching method?

Yes ( ) No ( )

1. If yes, specify
   _____
2. If no, explain
   _____

Do you have a cell phone?

Yes ( ) No ( )

1. If yes, what kind of a cell phone is it?
   a) Just a regular phone ( )
   b) A Smart Phone ( )
2. What do you use it for?
   a) Making calls ( )
   b) Receiving calls ( )
   c) Messaging ( )
   d) Surfing the Internet( )
   e) Other
   specify_____
   _____
3. If no, please explain why;
   _____

Do you have a computer at home?
Yes ( ) No ( )

ii) If (yes), what do you use it for?

Emails	
Information & Research	
News	
Networking	
Other (please specify)	

◆Do you have access to a computer at work?
Yes ( ) No ( )

- If (yes), what do you use it for?

Emails	
Information & Research	
News	
Networking	
Teaching	
Administration	
Other (please specify)	

- Where do you get support for things you do not particularly understand on a computer?

IT support at work	
Colleagues	
Friends	
Home	
Learners	
I do not ask	
I understand everything	
Other (please specify)	

- Have you had any form of training on computer use?
  Yes ( ) No ( )

  - If (yes), where did you get the training?
    a) At college ( )
    b) At work ( )
    c) Outside work ( )

  - If (no), would you like to go for such training?
    Yes ( ) No ( )

  - Why?
    _____

_____

  - If (yes), who should be responsible (organizing and paying) for such training?
    a) Myself ( )
    b) My employers ( )

  - When would you go for such training?
    a) After work ( )
    b) Weekends ( )
    c) During school holidays ( )
    d) Other (please specify)_____.

- Do you have access to Internet?

	Yes	No
At home		
At work		
Other (please specify)		

◆Are you on social networking sites?

	Yes	No
Facebook		
Twitter		
YouTube		
MySpace		
Skype		
Other (please specify)		

i) If you are on social networking sites, who do you socialize with?
   a) People at work ( )

b) People at home ( )
c) Ex school friends ( )
d) Anyone who invites me ( )
e) Learners ( )
e) Anyone who accept my invite ( )
f) Other (please specify)

_____

ii) Which mode(s) of communication would you prefer most?
a) Post Office services ( )
b) Telegram ( )
c) Telephone call ( )
d) SMS ( )
e) MMS ( )
f) Email ( )
g) Other (please specify)

_____

iii) Do you use any digital technologies in your classroom?
Yes ( ) No ( )

1. Why?

_____

_____

_____

Thank you for your time

G.

"The Digital identities of Southern African academics - a comparison between the University of the Witwatersrand and the National University of Lesotho"

Questionnaire for WITS participants

Please note;

1 – Please type an 'X' in front of the answer(s) applicable to you

2 – You can choose more than one answer(s) if applicable

- What is your age group?

a) 25-35 ( )
b) 35-45 ( )
c) 45-55 ( )
d) 55+ ( )

What is your highest qualification?

Ph.D.	

Masters Degree	
Honours Degree	
Bachelor Degree	
Diploma	
Certificate	
Other (please specify)	

- For how long have you been teaching?

  a) 0-5 years ( )
  b) 5-10 years ( )
  c) 10-15 years ( )
  d) 15-20 years ( )
  e) 20+ years ( )

- For how long have you been with WITS?

  a) 0-5 years ( )
  b) 5-10 years ( )
  c) 10-15 years ( )
  d) 15-20 years ( )
  e) 20+ years ( )

Which year(s) of study do you teach?

a) First Year ( )
b) Second Year ( )
c) Third Year ( )
d) Fourth Year ( )
e) Postgraduate ( )
f) Other (please specify)_____

How many learners do you have in each lecture room?
(Please type-in the number)

a) First Year ( )
b) Second Year ( )
c) Third Year ( )
d) Fourth Year ( )
e) Postgraduate ( )

Do you prefer a particular teaching method?

Yes ( ) No ( )

1. If yes, specify _____

2. If no, explain _____

Do you have a cell phone?

Yes ( ) No ( )

1. If yes, what kind of a cell phone is it?
   a) Just a regular phone ( )
   b) A Smart Phone ( )

2. What do you use it for?
   a) Making calls ( )
   b) Receiving calls ( )
   c) Messaging ( )
   d) Surfing the Internet( )
   e) Other

   specify_____

   _____

3. If no, please explain why;

   _____

   _____

Do you have a computer at home?

Yes ( ) No ( )

iii) If (yes), what do you use it for?

Emails	
Information & Research	
News	
Networking	
Other (please specify)	

◆Do you have access to a computer at work?

Yes ( ) No ( )

- If (yes), what do you use it for?

Emails	

Information & Research	
News	
Networking	
Teaching	
Administration	
Other (please specify)	

- Where do you get support for things you do not particularly understand on a computer?

IT support at work	
Colleagues	
Friends	
Home	
Learners	
I do not ask	
I understand everything	
Other (please specify)	

- Have you had any form of training on computer use?
  Yes ( ) No ( )

- If (yes), where did you get the training?
  a) At college ( )
  b) At work ( )
  c) Outside work ( )

- If (no), would you like to go for such training?
  Yes ( ) No ( )

- Why?
  _____
_____

- If (yes), who should be responsible (organizing and paying) for such training?
  a) Myself ( )
  b) My employers ( )

- When would you go for such training?
  a) After work ( )

b) Weekends ( )
c) During school holidays ( )
d) Other (please specify)_____.

- Do you have access to Internet?

	Yes	No
At home		
At work		
Other (please specify)		

◆Are you on social networking sites?

	Yes	No
Facebook		
Twitter		
YouTube		
MySpace		
Skype		
Other (please specify)		

iv) If you are on social networking sites, who do you socialize with?
a) People at work ( )
b) People at home ( )
c) Ex school friends ( )
d) Anyone who invites me ( )
e) Learners ( )
e) Anyone who accept my invite ( )
f) Other (please specify)

_____

v) Which mode(s) of communication would you prefer most?
a) Post Office services ( )
b) Telegram ( )
c) Telephone call ( )
d) SMS ( )
e) MMS ( )
f) Email ( )
g) Other (please specify)

_____

vi) Do you use any digital technologies in your classroom?
Yes ( ) No ( )

1. Why?

_____

_____

_____

Thank you for your time.