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An investigation of the attitudes of a group of lecturers at the University of the Witwatersrand towards the academic use of Facebook and the integration of other information and communications technologies.

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An investigation of the attitudes of a group of lecturers at the University of the Witwatersrand towards the academic use of Facebook and the integration of other Information and Communications Technologies

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A research report submitted to the Faculty of Humanities, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Education in Educational Technology

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ABSTRACT

As technology has become a part of our everyday lives, including our educational institutions, it will definitely have an impact on the teaching and learning. The premise is that the use of ICTs has the ability to transform teaching and learning effectively if it is implemented constructively. The research is to ascertain whether Facebook is used for academic purposes as well as the integration of other Information and Communications Technologies. The study was conducted with a group of lecturers at the University of the Witwatersrand. Data was collected by conducting semi-structured interviews. The interviews were audio-recorded and transcribed at a later stage. Common themes were identified. Positivity about the implementation of ICTs as well as institutional support is imperative for lecturers to continue their commitment to the process.

DECLARATION

I, Kathy Gwendoline Cannell, declare that this research report is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Education in Educational Technology in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Signed at ……

On the …….. day of …… 2013

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TABLE OF CONTENTS

ABSTRACT ..... **II**

DECLARATION ..... **III**

ACKNOWLEDGEMENTS ..... **IIV**

CHAPTER 1: INTRODUCTION **1**

1.1 PURPOSE OF THE STUDY 1

1.2 CONTEXT OF THE STUDY 1

1.3 PROBLEM STATEMENT 4

1.3.1 MAIN PROBLEM 4

1.3.2 SUB-PROBLEMS 5

1.4 SIGNIFICANCE OF THE STUDY 5

1.5 DELIMITATIONS OF THE STUDY 5

1.6 DEFINITION OF TERMS 5

1.7 ASSUMPTIONS 6

CHAPTER 2:LITERATURE REVIEW **7**

2.1 INTRODUCTION 7

2.2 DEFINITION OF TOPIC OR BACKGROUND DISCUSSION 7

2.2.1 ATTITUDES OF LECTURERS TOWARDS INTEGRATING TECHNOLOGY 9

2.2.2 TYPES OF TECHNOLOGY IMPLEMENTED 10

2.2.3 SUPPORT OFFERED BY THE INSTITUTION TO LECTURERS IN IMPLEMENTING ICTS 14

2.2.4 THEORETICAL FRAMEWORK 16

2.3 CONCLUSION OF LITERATURE REVIEW 19

CHAPTER 3: RESEARCH METHODOLOGY **22**

3.1 RESEARCH METHODOLOGY PARADIGM 22

3.2 RESEARCH DESIGN 23

3.3 POPULATION AND SAMPLE 24

3.4 THE RESEARCH INSTRUMENT 24

3.5 PROCEDURE FOR DATA COLLECTION 25

3.6 DATA ANALYIS AND INTERPRETATION 25
3.7 LIMITATIONS OF THE STUDY 25

CHAPTER 4: PRESENTATION OF RESULTS 27

4.1 INTRODUCTION 27
4.2 DESCRIPTION OF THE RESPONDENTS 27
4.3 RESULTS 28
4.3.1 REASONS FOR USING VARIOUS ICTS 30
4.3.2 REASONS FOR NOT USING FACEBOOK OR NEGATIVE OUTCOMES OF USING FACEBOOK 34
4.3.3 IMPACT ON STUDENT PARTICIPATION 36
4.3.4 LECTURERS' VIEWS AND EXPERIENCES OF IMPLEMENTING ICTS 40
4.4 SUMMARY OF THE RESULTS 42

CHAPTER 5: DISCUSSION OF THE RESULTS 45

5.1 INTRODUCTION 45
5.2 DEMOGRAPHIC PROFILE OF RESPONDENTS 45
5.3 DISCUSSION PERTAINING TO THE USE OF FACEBOOK FOR ACADEMIC PURPOSES AND OTHER ICTS USED 45
5.4 REASONS FOR IMPLEMENTING VARIOUS ICTS 46
5.5 OUTCOMES 49
5.6 IMPORTANT FINDINGS OF STUDY 50
5.7 CONCLUSION 51

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS 52

6.1 INTRODUCTION 52
6.2 CONCLUSIONS OF THE STUDY 52
6.3 RECOMMENDATIONS 53
6.4 SUGGESTIONS FOR FURTHER RESEARCH 53

REFERENCES 54

APPENDIX A 59

APPENDIX B 60

APPENDIX C.....61

APPENDIX D.....62

APPENDIX E.....63

APPENDIX F 64

APPENDIX G.....65

APPENDIX H.....67

CHAPTER 1: INTRODUCTION

1.1 Purpose of the study

The purpose of this research is to investigate personal attitudes towards the educational use of Facebook and other Information and Communication Technologies (ICTs) as displayed by a group of lecturers at the University of the Witwatersrand.

1.2 Context of the study

This is the Information Age. Uys, Nleya and Molelu (2004:68) state that transformational initiatives are demanded by the Information Age and "the pursuit of technological transformation in higher education has become widespread in Africa with the extensive pervasiveness of global networks like the Internet." As technology has become a part of our everyday lives, including our educational institutions, it will definitely have an impact on teaching and learning. The premise is that the use of ICTs has the ability to transform teaching and learning effectively if it is implemented constructively. Supplying educational institutions with ICTs is the first step towards transforming education. However, the implementation is dependent on the educators – their attitudes will determine whether or how they will use it in their teaching. Their adoption of it and how they adapt to the changes is imperative. It is against this background that this research was undertaken – to investigate the attitudes of academic staff in higher education towards the implementation of ICTs. Carol (2007) in Evans (2008) suggests that "we have moved beyond the Information Age, to the Age of Networks and therefore Networked Learning, where the Internet is changing the way we learn because of its network qualities." This process of changing the way we learn can only be enhanced if it is facilitated by educators who are willing to be a part of the process. Czerniewicz, Ravjee and Mlitwa (2006) point out that "for many, working at the interface of technology

and teaching and learning, it is accepted that technology is a prerequisite for the enhancement of teaching and learning, research, and communication and access to information." Furthermore, Laurillard (2004) contends that learning which is supported by information and communications technologies, is classified as e-learning.

Technology has most definitely infiltrated all areas of our lives including the educational sphere. Students thrive on it to such an extent that they seem to have developed a dependency on it - similar to an addiction, especially with the social networking sites. Social networking sites (SNSs) have become increasingly popular especially amongst adolescents and therefore, university students. boyd and Ellison (2007) define social network sites as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system." Users register on a site by completing the required information. A profile with the identity of the user is created and a 'connection' is made with other users. Students form online communities through various social networking sites. "Since their introduction, social network sites (SNSs) such as MySpace, Facebook, Cyworld, and Bebo have attracted millions of users, many of whom have integrated these sites into their daily practices" (boyd & Ellison, 2007). Brodkin (2010) affirms the growing popularity of Facebook and Twitter as "the two leaders" in social networking.

Facebook is a social networking service which was founded by Mark Zuckerberg and launched in February 2004 as a service for students to get to know each other better. It started off as a service exclusively to students registered at Harvard University but eventually expanded to include everyone (Cassidy, 2006 in boyd & Ellison, 2007). "Facebook users create a profile with personal details and communicate with other users by posting messages on their 'walls'. Registered users can view profiles of others on condition that they have permission to do so" (boyd & Ellison 2004). In order to create a network, users send a 'friend request'. (boyd, 2006a) in boyd & Ellison (2007) sheds light on the term 'friends' used on Facebook and states that "the term 'Friends' can

be misleading, because the connection does not necessarily mean friendship in the everyday vernacular sense, and the reasons people connect are varied." A 'like' feature on Facebook enables users to 'like' a comment by clicking on it. A fan page can be created for a group with a specific interest or focus or an organisation and users sign up as fans on those pages. Ellison, Steinfield and Lampe (2007) in boyd and Ellison (2007) "suggest that Facebook is used to maintain existing offline relationships or solidify offline connections, as opposed to meeting new people. These relationships may be weak ties, but typically there is some common offline element among individuals who friend one another, such as a shared class at school."

With reference to the 'addiction' to SNSs mentioned previously, "Peele (1985) argues that addictive behaviour stems from three primary motives: escape (a perceived means of diminishing awareness, tension and pain); ritual (association with an experience that has immediacy, simplicity and predictability); and compensation (elevated sense of control, power and self)" Perry & Lee (2007). They 'escape' as they shut out their immediate surroundings and become engrossed in the action of communicating which occurs frequently and they also take control of the situation. It is not surprising that the younger generation is enthralled by the technology as it allows them to connect with others. Bosch (2009) found that students use the term 'addicted' in their discussions about the use of Facebook. They exhibit dependency behaviours. They seem incapable of functioning without the use of Facebook.

Although it is said that a change is as good as a holiday, this is not necessarily always the case. It is quite a common phenomenon for people to be apprehensive about change and to resist it. The challenges faced by lecturers to integrate ICTs for e-learning purposes cannot be overlooked. According to Sife, Lwoga and Sanga (2007) "E-learning refers to the use of ICTs to enhance and support teaching and learning processes". Various technologies are incorporated to complement the traditional mode of face-to-face teaching. Appropriate training for academic staff is required for the integration process to take place. Technical support is also important. The role of the educator is changing as students need to be prepared for the knowledge economy.

Czerniewicz, Ravjee and Mlitwa (2006:22) give an account of the National Plan for higher education's role in developing a knowledge society in South Africa:

> Higher education has a critical and central role to play in contributing to the development of an information society in South Africa both in terms of skills development and research. In fact, as Manuel Castells, the noted social theorist of the information revolution as argued, "if knowledge is the electricity of the new informational international economy, the institutions of higher education are the power sources on which a new development process must rely" (1997:2).

ICTs enable instant as well as increased access to information. Universities are tasked with preparing graduates who are able to effectively use technology and therefore become skilled and competent in society. Innovative lecturers have taken the initiative to implement different ICTs in their teaching and learning. "In Africa, there is a growing awareness and commitment to prepare students for effective participation in the emerging global knowledge economy. eLearning can be used in this regard to assist students to acquire skills and familiarity with the tools of the knowledge economy while studying." (Uys *et al.* 2004:68)

1.3 Problem statement

1.3.1 *Main problem*

At present, it is not clear whether ICTs are integrated at the University of the Witwatersrand by lecturers and if so, to what extent. The research is to ascertain which ICTs are being used with a special focus on Facebook, how it is being used, why it is being used and what are the advantages and disadvantages.

1.3.2 *Sub-problems*

The first sub-problem is to identify whether (i) Facebook is used for teaching and learning and (ii) which other ICTs are integrated.

The second sub-problem is to assess the reasons for using or not using Facebook.

The third sub-problem is to evaluate positive or negative outcomes.

1.4 Significance of the study

The study fills a gap in that it aims to produce a useful finding about whether there is a role for social networking tools in the teaching and learning at the University of the Witwatersrand.

The outcome of this study can be used by the eLSI Unit of the University to provide guidance as to the type of support they can offer to academics. In addition, academic members of staff will be able to establish what their colleagues are implementing in their lectures and whether they will be able to benefit using same.

1.5 Delimitations of the study

The research is confined to one higher education institution namely, the University of the Witwatersrand and therefore only lecturers appointed at said institution were interviewed. There was no preference for any one of the five faculties in which the academics are appointed. The students taught by the lecturers comprised of undergraduate as well as postgraduate students.

1.6 Definition of terms

ICTs – Information and Communications Technologies

Wits – University of the Witwatersrand, Johannesburg

SNSs – social network services

e-learning – electronic learning, used to refer to computer based learning

eLSI Unit – e-Learning Support and Innovation Unit

1.7 Assumptions

The following assumptions have been made regarding the study:

a. the respondents understood the nature of the research given they have read and clearly understood the information contained in the participant information sheet

b. they would be able to share openly and extensively their experiences of using ICTs in their teaching and learning

c. respondents understood that the interviews conducted was for research purposes only

d. the respondents understood that participation was voluntary and they were free to withdraw at any point

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

In this section, a literature review on the key concepts of the research will be discussed.

2.2. Definition of topic or background discussion.

Our world is permeated by technology. Technology is dominating all spheres as undoubtedly, we live in a technological era. “Web applications are increasingly embedded in the daily routines of everyday life, particularly for young people in many places and a variety of different social settings.” (Hargittai 2007; Kim and Yun 2007; Lange 2007; Leander and McKim 2003; Tufekci 2008 in Madge 2009:142). Today’s students are exposed to a myriad of technological applications and therefore computer games, the Internet and cellular phones have become an important part of their daily lives. Students feel the need to network and connect with each other on a daily basis and they do so using their mobile phones or computers. While this can at times be a source of frustration to parents and teachers, if we accept that we are dealing with ‘Digital Natives’, then we can eliminate the source of frustration by constructively using it as a source to enhance the teaching and learning.

Prensky (2001) has coined the term “Digital Natives” to refer to today’s students who have grown up with this new technology. He claims that they “are all ‘native speakers’ of the digital language of computers, video games and the Internet.” In comparison to the Digital Natives, the rest of us have been termed “Digital Immigrants” as we have been exposed to this new technology and have “adopted many or most of the new technology” (Prensky 2001). Digital Immigrants have had to learn to adapt to this new environment in contrast to Digital Natives who demonstrate an ease of using technology. It is important to have an understanding of this classification as it affects educational objectives. Digital Natives require a new way of learning. We cannot rely solely on our

traditional teaching methodologies as it is perceived as outdated by the digital generation. Chimbwanda (no date) professes that “in tertiary institutions the power of the internet makes an infinite amount of information available to the lecturer and student.” Information is also easier to access as it is literally at one’s fingertips. Technology should be used in view of the educational outcomes expected. The type of technology should be relevant for the content presented. The integration of ICTs in the education context requires that educators review their teaching strategies and adapt new ones. We need to understand to what extent it will affect our teaching methodologies. Guri-Rosenblit (2005:18) stated that

> The range of uses for advanced technologies and their application are enormous. They are applied in a variety of domains for information retrieval, course design, simulations and multi-media presentations, communication with instructors in and after classroom sessions, communications among students, practicing exercises and tests, reading notice boards, classroom administration, etc.

Broadley (2007) proposed that “with technology evolving at such a rapid rate, it is imperative that educational institutions equip students with technological skills that are essential for coping in the wider community.” Higher education institutions need to equip students with skills for the workplace. While we expect technology to revolutionise education, we need to understand that this will not happen instantaneously and that several issues come into play. However, it can have a positive outcome if it is implemented constructively by the significant stakeholders who include lecturers (others: policy makers, management of the institution, students). Consensus can be reached that effective integration of technology in education entail learning outcomes that would be beneficial to the students as well as the lecturers. The stance of the Department of Education as stated in the Government Gazette is that by “enriching the learning environment through the use of ICTs is a continuum; it is a process that takes learners and teachers through learning about ICTs (exploring what can be done with ICTs), and learning through the use of ICTs (using ICTs to support new ways of teaching and learning), supporting and enriching each other at the same time” (2004:19).

2.2.1 Attitudes of lecturers towards integrating technology

Integrating technology into the teaching and learning in higher education warrants buy-in from the academic staff as they would be tasked or involved in setting up processes. Becta (2004) cited in Bingimlas (2009:238) claims that "one key area of teachers' attitudes towards the use of technologies is their understanding of how these technologies will benefit their teaching and their students' learning." Comprehending these benefits would foster a positive attitude towards integrating ICTs in their teaching. They would have to present their courses using a different approach to teaching but if they are aware of the relevance and the benefits to the learning outcomes, they would be encouraged to use it. A small percentage of lecturers are creative in their use of technology and are seen to be pro-active. Uys *et al*. (2004) makes reference to academic staff taking "ownership of the technological transformation." Staff who are informed about the processes and benefits of using technology and trained to acquire the skills and competencies required to use ICTs, will be more inclined to participate in transformation. Czerniewicz *et al.* 2006:9 testified that "there are numerous examples of ICTs being introduced into higher education by key individuals. Sometimes, they are located in pockets of group activity; at other times, they are largely isolated."

Higher education institutions have to take responsibility for staff development in terms of using ICT for teaching and learning purposes. By becoming familiar with the types of ICTs that can be integrated in teaching and learning and understanding how these can be integrated in a meaningful way, will motivate lecturers and serve as a confidence-booster to make use of the technology. "It is clear that academic staff are overburdened and (in most cases) lack the skills to implement e-learning without support. E-learning often involves significant changes in the work patterns of academics and they need to be assisted through the process of making those changes." (ICTs and Higher Education in Africa: South Africa p. 97) It is incumbent on academic staff to make strides in research and having to focus on integrating ICTs into their teaching as well, can be over-bearing even with the support by a dedicated unit.

The twenty-first century requires new skills and new knowledge and therefore the learning needs of students have changed. It is therefore expected that lecturers would assist with effecting this change by integrating twenty-first century technology into their teaching. Staff need to be empowered. Laurillard (2004) contends that

> All academics, therefore, need to cover the full range of professional skills of both research and teaching. They will differ in proportion, of course, but there is no easy exit from the responsibility of every university to offer its students access to expert teaching informed by current research, to give them the capabilities they need for their own professional lives.

In as much as a new professionalism is sought from lecturers, it is subsequently sought from university graduates.

2.2.2 Types of technology implemented

Shambare and Mvula (2011) regard technology as the

> media through which information and knowledge content can be delivered to learners. It includes multimedia representation to accommodate different types of interactions, teaching and learning styles. This component is a dynamic one seeking up-to-date technologies (whether asynchronous or synchronous) and use of a variety of innovative technologies to accomplish the system's goals and objectives.

The implementation of ICTs results in interaction between students and lecturers and the mode of interaction are dependent on the type of educational technology used.

"There are two main modes of lecturer-student interaction in e-learning, namely synchronous and asynchronous learning" (Walter Sisulu University, p. 8). Synchronous learning is interaction that takes place instantly or in real time. Lecturers and students communicate simultaneously as they are online at the same time. Asynchronous learning is interaction that does not occur at the

same time. These are activities that use technologies such as blogs, wikis, and discussion boards. The idea behind this is that participants may engage in the exchange of ideas or information without the presence of other participants online" (Chimbwanda, p.11). Students would have time to reflect on work before responding or commenting. Damoense (2003) finds that an asynchronous environment is beneficial especially since students have different earning styles and this will enable them to work at their own pace at any proper location. Van Niekerk (2006) identifies weblogs as "online tools that may also be used as a reflection tool." Reflection is an important process of learning.

The implementation of e-learning varies across higher education institutions. Learning Management Systems (LMS) is software that has been put in place by higher education institutions for the use of internet-based courses. WebCT and Blackboard are LMS tools which are used by lecturers to develop and present their course material (Kinuthia & Dagada 2008). Laurillard (2004) acknowledges that

> students on many courses in many universities now find they have web access to the lecture notes and selected digital resources in support of their study, they have personalised web environments in which they can join discussion forums with their class or group, and this new kind of access gives them much greater flexibility of study.

The traditional face-to-face mode of teaching is complemented with the use of various ICTs. The aim is not to replace the existing teaching practices but instead to offer support.

> In addition to managing the administrative functions of online learning, some systems helps create, reuse, locate, deliver, manage and improve learning content. These systems are called Learning Content Management Systems (LCMS) (Rengarajan, 2001). LCMS actually provide tools to deliver instructor-led synchronous and asynchronous online training. (Sife, Lwoga and Sanga, 2007)
>
> Students have improved access to course material and have more time to reflect. Some universities have found that using WebCT has assisted

> in dealing with large class groups (ICTs and Higher Education in Africa: South Africa).

Mobile phones have afforded adolescents a sense of self-control in contrast to parental control. Taylor and Harper (2001) in Harley, *et al.* (2007:229) enunciate the fact that "mobile phones have therefore become heavily implicated in the negotiation of social networks for young people." Globally there has been a surge in the use of social networking sites (SNSs) amongst adolescents. The most popular of these sites is Facebook. Statistics reveal that membership for Facebook doubles every 6 months and that 2 billion users would have registered at the end of 2011 (Shambare & Mvula, 2011). Social networks allow users to express themselves on issues that they would not confront in person. It is precisely as a result of this freedom of expression, that Shambare & Mvula (2011) views it as an opportunity to expand Facebook into education. The role of educators is to transmit knowledge to students and guide them as they acquire this new knowledge and develop an understanding of it. This is an ongoing process and therefore learning is an ongoing process (Shambare & Mvula, 2011) As a result of this continuous interaction, "Facebook's ability is to promote the interchange of information among students on the one hand, and between students and lecturers on the other, potentially makes it a vital educational tool" (Sabry and AlShawi, 2008 in Shambare & Mvula, 2011). Besides sharing of information, Solvie and Kloek (2007) in Shambare & Mvula (2011), consider the use of Facebook as a platform for communication, support and clarification of course content. Bosch (2009) warns that we cannot ignore Facebook as "a potential educational tool. Indeed, Facebook may be just the tool we need to stimulate collaborative student-led learning." It is an opportunity to engage with students on a platform with which they are familiar and comfortable with and which they use on a daily basis. Mazer *et al.* (2007) recognise that

> A teacher's use of Facebook is an attempt to communicate with students outside of that controlled environment where teachers can meet students in their territory. All teachers will enter the face-to-face classroom and

> talk to their students, but only some teachers may choose to enter a virtual social network.

It is only natural to expect some lecturers to have reservations about communicating with their students on a social networking site as it could be perceived as improper behaviour. Even though it could result in positive networking with students as an indication of an affinity that lecturers share with students, it is advisable that boundaries be set in terms of communication. Other academics regard it as an opportunity to form links with students. Bosch (2009:190,191) reports that

> During a qualitative study at Yale (Duboff 2007), faculty members reflected that their posts on Facebook indicated to students that they were part of the same academic community, and that it helped break down barriers between themselves and students. In a similar study (Matthews 2006), a faculty member highlighted Facebook as an opportunity to directly reach over 75 per cent of his target audience.

Students perceive lecturers to be more approachable and less formidable.

Barnes (2007) in Bosch (2009) makes reference to a professor at the University of Pennsylvania who uses Facebook "to teach concepts of social networking and to foster critical thinking, having students investigate the connections among their peers." Facebook can be integrated constructively into a university course. Kosik (2007) cited in Bosch (2009) discovered that students make use of Facebook to get information from their classmates on assignments, therefore using it for academic purposes. Their preference for Facebook over the university education software is that it elicits immediate responses. Madge *et al.* (2009) proclaim that students' use of Facebook has extended from a social network to an 'informal educational network'. They seek assistance from their peers for feedback on coursework and use it for communication purposes to contact others in relation to seminar groups. Selwyn (2009) reports on research conducted with students on the use of Facebook and shares an account of two final-year students who successfully recruited a sample of respondents for their dissertation research projects. Selwyn (2009:171) concludes "that *Facebook is*

an important learning technology of twenty-first century higher education." (original emphasis)

Anderson (2007) cited in Sife, *et al* (2007) explains that "the usage of web technologies in e-learning are further enhanced with the web 2.0, which is a set of economic, social, and technology trends that facilitate a more socially connected Web where everyone is able to add and edit the information space. These include blogs, wikis, multimedia sharing services, content syndication, podcasting and content tagging services." Laurillard (2004) refers to blogging as marking "the beginning of a more successful form of personal creative activity." Authors create a weblog to raise a particular topic and share information and readers respond by posting comments.

Laurillard (2004) identified that

> e-learning has been used very effectively in university teaching for enhancing the traditional forms of teaching and administration. Students on many courses in many universities now find they have web access to the lecture notes and selected digital resources in support of their study, they have personalised web environments in which they can join discussion forums with their class or group, and this new kind of access gives them much greater flexibility of study.

This is a tremendous benefit for part-time students as they have easier access to the course and therefore their participation is increased.

2.2.3 Support offered by the institution to lecturers in implementing ICTs

The content of course material is provided by lecturers using traditional learning technologies. However, with the advent of technology, it is now an expectation that because higher education professionals work in an ICT rich environment, they should integrate technology into their teaching. Cross (n.d) indicates that

> The institutional landscape has changed with the expansion of ICT use. In some cases, old units or divisions that were involved with staff in ICT staff competencies or professional development were restructured or extended to accommodate the demands of e-learning, whereas in other cases new units were established to nurture the new developments. Viewed from another angle, the introduction of new learning technologies was to a certain extent dominated by chores attached to the managing and use of a Learning Management System (LMS).

Higher education institutions have recognised the need to establish units dedicated to assist lecturers as "academics are specialists in their own particular discipline and do not necessarily embrace upcoming technologies to enhance and expand their teaching practice." (Fresen, p. 87) These units will comprise of e-learning specialists, Instructional Designers and graphic designers. At the University of the Witwatersrand, a unit dedicated to the support of e-learning has been established to assist academic staff and students at the institution to make innovative use of ICTs in their teaching and learning. The eLSI (e-Learning Support and Innovation) unit comprising of e-learning specialists such as Instructional Designers, Content Developers, Software Developers and Researchers have been tasked to aid and enrich the use of technology by lecturers. A Google Group has been registered so that members are updated on information pertaining to the use of ICTs at the university.

It is not expected that lecturers will become fundis in the use of technology but naturally some will display an affinity to using technology and will excel in their use of it. Broadley (2007) points out that "practical issues such as hardware (accessibility to computers), connectivity (hosted data centre environment) and networking (access to the Internet) will often influence a teacher's decision to use ICT resources in their teaching and learning practices." Higher education institutions should avoid frustrating lecturers by eliminating or minimising such stumbling blocks and aim to foster a positive attitude towards implementing technology. Adam 2003:197 explains that

> In most education circles, ICTs are regarded as a solution for the problem of having to do more with less, providing access to increasingly diverse demography of students and faculty and improving both the quality and quantity of educational content. Students and faculty are not only expected to participate in the conventional "chalk 'n talk" teaching and learning process but are also required to be part of the virtual knowledge enterprise.

In terms of staff development, Bates (1997) cited in Sife *et al.* (2007) asserts that "faculty staff require training not just in choice and use of appropriate technologies, but more fundamentally in how people learn and in instructional design." The focus should be on the choice of ICT used in conjunction with learning methodologies.

2.2.4 Theoretical Framework

It is widely documented (Lautenbach 2005, Kinuthia and Dagada 2008, Bathaeian 2009) that with the advent of ICTs in education, the role and teaching style of the lecturer will change. Cross concurs with Czerniewicz that "students who have 'grown up digital' actually think and learn differently. For lecturers and students, it calls for appropriate responses to additional aspects of student diversity and the need to come to grips with the pressures and implications of the new communication order." Lecturers have to take on the role of facilitators by enabling students to be more active in the learning process. In contrast to traditional pedagogical practices, the use of ICTs in education fosters a constructivist framework. "In a constructivist learning environment the role of the lecturer shifts from being a source of knowledge to facilitating learning. Khine (2003) argued that students should not be left to explore alone, rather lecturers should provide support, coaching and modelling to the students to make certain learning takes place" (Ng'ambi & Johnston 2006: 246). Learning is a collaborative process.

Constructivism is associated with Jean Piaget's and Lev Vygotsky's theories of learning. Their theories emphasise the student as an active participant in the

learning and development process. A collaboration of the learning process exists between student and teacher. “Piaget’s cognitive theories have been used as the foundation for discovery learning models in which the teacher plays a limited role. In Vygotsky’s theories both teachers and older or more experienced children play very important roles in learning” (Social Constructivist Theories). Vygotsky’s emphasis for learning is on the social context. “Adults such as parents and teachers are conduits for the tools of the culture, including language. The tools the culture provides a child include cultural history, social context, and language. Today they also include electronic forms of information access” (ibid.). Learning is a social interaction activity encouraged by the community through language and culture. “Teachers thus facilitate growth and learning as do peers and other members of the child’s community” (ibid.).

A social constructivist environment is created in the classroom by using technology for various goals.

> Telecommunications tools such as e-mail and the Internet provide a means for dialogue, discussion, and debate – interactivity that leads to the social construction of meaning. Students can talk with other students, teachers, and professionals in communities far from their classroom. Telecommunications tools can also provide students access to many different types of information resources that help them understand both their culture and the culture of others. (Social Constructivist Theories)

Geographical boundaries are transcended and information sought from other sources. The Internet provides a network for social interaction and consequently for development.

It should be noted that as both teacher and student are involved in the learning process, the role of the teacher as facilitator is crucial. Becta (2004) cited in Bingimlas (2009:238) claims that the attitudes of teachers towards the use of ICTs in education will be influenced by their understanding of how students’ learning will benefit from the use thereof. The task of higher education institutions is to promote life-long learning to students which is enabled through

lectures by the academic staff. This goal can be facilitated by the effective use of ICTs.

> The role of schools, colleges and universities is to assist their students to develop their learning styles, to construct knowledge relevant for their lives, and to cope with values and norms in a changing world by providing them with adequate tools. Accessible information does not turn automatically into meaningful knowledge without the assistance of a teacher or an expert. Novices, particularly at the undergraduate level, have great need of ongoing support and guidance of expert teachers. The boundless information available on the Internet might enrich the learning/teaching process in class. By no manner of means can it replace them (Guri-Rosenblit 2005: 17).

Higher education institutions are tasked with providing students with learning and skills relevant and essential for our continuously evolving society. Even though the Internet can provide access to endless information the role of the lecturer has by no means become redundant. “According to Newhouse (2002), teachers need training in technology education (focusing on the study of technologies themselves) and educational technology (support for teaching in the classroom).” (Bingimlas 2009: 240) Training and support will have positive spin-offs in the use of ICTs. Raturi, Hogan and Thaman (2011) concur that professional development is considered necessary to keep in touch with current developments.

Chowdhury (2009) indicates that: “Constructivists have argued that instructional technologies can be useful to help learners find their own meaning. For instance, the Internet can be used to search for information, facilitate social interactions over great distances, or support discovery and collaborative learning.” Internet access enables students to search for relevant information which encourages self-learning as opposed to being recipients of facts from lecturers. The learner is not passive in the process but is enabled to find meaning and construct new knowledge. Duffy and Cunningham (1996:171) in Laurillard (2002:67) sums constructivism up as follows:

"(1) learning is an active process of constructing rather than acquiring knowledge, and
(2) instruction is a process of supporting that construction rather than communicating knowledge."

Instruction and support takes place through the continuous interaction between students and lecturers which is made possible by the new technologies (Guri-Rosenbilt 2005). Osborne & Collins (2000) in Bingimlas (2009) presuppose that student motivation will be increased with the use of ICTs and Newton & Rogers (2003) contend that clearer thinking will be facilitated and interpretation skills with data will be developed. With reference to our current era, Bingimlas (2009:35) articulates that "the use of ICT in the classroom is very important for providing opportunities for students to learn to operate in an information age." Students have to acquire the skills to optimise learning as well as applying their skills in future in the workplace and in society. At the University of Botswana, they have the aim of e-learning in their vision and mission statements, clarifying that "eLearning is targeted towards the facilitation of more student-oriented, active, open and life-long learning approaches based on constructivism." (Uys *et al*. 2004:69)

2.3. Conclusion of Literature Review

ICTs are indispensable to prepare students for future employment in the knowledge economy. Bingimlas (2009:235) testifies to this and explains that "the use of ICT in the classroom is very important for providing opportunities for students to learn to operate in an information age." Prensky (2001) enlightens us that the "thinking patterns" of students have changed as they were born in a digital world. They are used to receiving information almost instantaneously in the form of surfing the Internet and downloading material as well as messaging each other.

With access to ICTs, students can acquire more detailed information on topics discussed in their curriculum and gain a better understanding of concepts for which several explanations are provided on the Internet. They enjoy the benefits that technology offers. An awareness of ICTs has reformed higher education as Adam (2003) points out "particularly to applications in education management and administration and access to knowledge in support of teaching, research, and lifelong learning." Bingimlas(2009) notes that ICTs support the development of students to be functional in the Information Age.

Chimbwanda (p.31) professes that "learning requires two types of interaction. The first type is interaction with the course content and the second is online interaction with people, which are lecturers as well as other students." Interaction between students and lecturers as well as students with other students, is a valuable process as it contributes to knowledge sharing. The participation of students to online discussions, will promote critical thinking. Students are afforded the opportunity to post comments or questions or engage in debates. This is indicative of a constructivist approach where students construct meaning and share responsibility with the lecturer for their learning by means of a guiding role.

The adoption of SNSs amongst adolescents has accelerated tremendously.

> The implication for education, in particular teaching and learning can only be good, as learners stand a better chance of interacting with (1) peers, (2) instructors and (3) content. Given the widespread adoption of SNSs by students, educators, in particular, need to develop strategies to tap into this trend (Shambare & Mvula, 2011).

Social networking is an activity that students engage in on a daily basis. It is imperative that educators take heed of this and become innovative by recognising the possibilities that this platform offers in terms of educational objectives. Broadley (2007) shares the findings of her studies and states that it has been established that "successful implementation of an e-learning environment was dependent on four key factors of ICT infrastructure, ICT leadership, the ICT capacity of teachers and the support and training initiatives

implemented. These four factors are not hierarchical in nature, but are all equally important.”

CHAPTER 3: RESEARCH METHODOLOGY

This chapter describes the methodology followed to address the research. The researcher will discuss the choice of research design, how the data was collected as well as the research instrument used.

3.1 Research methodology /paradigm

Paradigms or research methodologies make reference to setting a knowledge claim. This means that researchers "start a project with certain assumptions about how they will learn and what they will learn during their enquiry." (Creswell, p.6) Qualitative research design was used for this study to assess how a group of lecturers at the University of the Witwatersrand are using Facebook for academic purposes as well as how other ICTs are integrated.

> Qualitative research designs use methods that are distinct from those used in quantitative designs. To be sure, qualitative designs are just as systematic as quantitative designs, but they emphasise gathering data on naturally occurring phenomena. Most of these data are in the form of words rather than numbers, and in general, the researcher must search and explore with a variety of methods until a deep understanding is achieved. (McMillan and Schumacher 2010:23)

A qualitative research design is appropriate for this research as the investigation was not focused on quantifiable aspects of types of ICTs used but instead drawing on respondents' experiences of how they are integrating the use of Facebook and other ICTs in their teaching and thus specifically drawing on their thoughts and feelings. This type of research methodology aims to explore events experienced as well as the outcome of the events. As the theoretical framework is based on a constructivist approach, "the goal of the research, then, is to rely as much as possible on the participants' view of the situation being studied." (Creswell, p.9)

3.2 Research Design

The study used a case study that investigated the experiences of lecturers towards the use of Facebook for academic purposes and the integration of other ICTs by noting individual perceptions. Eisenhardt (1989) specifies that "case studies typically combine data collection methods such as archives, interviews, questionnaires and observations. The evidence may be qualitative (e.g., words), quantitative (e.g., numbers), or both." This view is supported by McMillan and Schumacher (2010), who further clarify that the focus of case study is about "an in-depth analysis of a phenomenon and not the number of people sampled." In this study, eight participants took part in this case study.

The study was conducted in the privacy of the lecturers' offices in the form of semi-structured individual interviews to ascertain their experiences of integrating ICTs. It was anticipated that lecturers would share their experiences openly and honestly about the use of ICTs as well as the interaction with their students. Interviews were audio-recorded to ensure that all information would be captured and transcribed at a later stage. Recordings also provide accurate and relatively complete information.

This method was deemed appropriate for the research as respondents were given an opportunity to elaborate on their experiences and share their knowledge. It also entailed a specific period of time which lecturers had to set aside resulting in absolute certainty that the data would be collected on condition that appointments were honoured. Interviews did not exceed thirty minutes and that was made clear beforehand to the interviewees so that participation in the research would not be a laborious process and therefore increase the possibility of volunteering to participate.

The advantage of the semi-structured interview for this research was that although a few questions were posed to the respondents and the expectation was for them to answer those specific questions and express their own views, they would also be in a position to offer any other relevant information pertaining to the study. Each lecturer signed a consent form to being interviewed and a separate consent form for being audio-recorded. They were

not obliged to divulge their names and instead were encouraged to use pseudonyms in order to protect their identities.

3.3 Population and sample

Convenience sampling was the method used to select participants who were selected from the academic staff component at the University of the Witwatersrand, the requirement being that these lecturers integrate ICTs in their teaching and learning methodologies. According to the definition in McMillan and Schumacher (2010), convenience sampling is “a nonprobability method of selecting subjects who are accessible or available.” As the focus of this research is the use of Facebook and other ICTs, it makes sense that participants were selected on that basis.

3.4 The research instrument

One-on-one interviews were scheduled with lecturers at a time convenient for them. There were four structured questions but as the interview progressed, a few follow-up questions were asked on elaboration of their responses. Eight lecturers across different faculties were interviewed and audio-recorded after the researcher obtained consent by means of signed forms from the participants requesting permission from them to be interviewed as well as audio-recorded and informing them of their rights to participate and withdraw at any stage. The participants understood that they were not coerced into completing the interview should they at any point have felt discomfort at the questions posed to them. For this study, the data was represented by qualitative evidence from the interviews. Yin (1994) in Darke, Shanks and Broadbent (1998) notes that “interviews are essential sources of information for case study research “ as it is by this means that researchers are informed of participants’ viewpoints and perceptions of events. Audio-recording of the interviews is recommended to give a complete account of the discussion (Darke *et al.,* 1998). Eight lecturers

were interviewed individually and a single appointment for each respondent was secured. No follow-up interviews were deemed necessary.

3.5 Procedure for data collection

A list of lecturers who integrate ICTs in their teaching was obtained from the eLSI Unit. I emailed the lecturers and attached the participant information sheet giving the background for the intended research and ensuring that they understood the purpose of the study. Although they did not receive the set of questions beforehand, it was anticipated that they would have a fair idea of the content of the interview. Permission was requested to conduct interviews and on confirmation of positive responses, appointments were set up and lecturers were met individually at their offices. Permission was also sought from the Head of School of Education and was duly granted.

3.6 Data analysis and interpretation

Data obtained from the individual audio-recorded interviews were transcribed. Common themes were identified as the researcher interpreted the data obtained from the participants. The research questions posed to the participants as well as the additional information volunteered by them, served as a guideline to analyse and interpret the data. A spread sheet was drawn up to compare and contrast data using specific categories. The aim was to compare feedback from participants and to determine their similarities as well as differences in views and attitudes. General themes were obtained during this process.

3.7 Limitations of the study

Only a few lecturers could be interviewed as it is a limited number who use Facebook for academic purposes and therefore this study does not aim to generalise the findings to experiences of all lecturers employed at the University of the Witwatersrand.

It was quite difficult to be able to secure appointments with lecturers as more than eight were contacted, however not all who were contacted, were able to meet with the researcher as a result of other commitments and appointments, as well as the fact that they do not use Facebook for academic purposes.

The results will be presented in chapter 4.

CHAPTER 4: PRESENTATION OF RESULTS

Introduction

This chapter is a presentation of the results of the study. Firstly, the data collection method will be reported followed by a description of the participants. The respondents' reasons for using various ICTs are provided as well as their account of the impact on student participation. The chapter concludes with a summary of the results.

4.1 Data Collection

The eLSI unit assisted in presenting a list of lecturers who used Facebook and/or other ICTs in their presentation of course material. Potential participants were contacted and informed about the background to the study and permission was requested for individual interviews. Consequently, appointments were confirmed via email as well as telephonically. Lecturers were interviewed at their respective offices. It was envisaged that a target of ten (10) lecturers would be interviewed and audio-recorded, however a total of eight (8) lecturers were interviewed. Unfortunately, one of the interviews did not record successfully, and the data presented and analysed, is an account of seven (7) recordings.

4.2 Description of the respondents

All participants were full-time lecturers, 4 males and 3 females, employed by the University of the Witwatersrand. At the time that the study was conducted, the institution offered academic courses/degrees across five faculties, namely (1) Commerce, Law and Management, (2) Humanities, (3) Science, (4) Engineering and the Built Environment and (5) Health Sciences. The seven lecturers

represented three of the faculties and they lectured undergraduate as well as postgraduate studies.

4.3 Results

The following ICTs had been identified by the respondents in their implementation of e-learning. Various ICTs included WebCT, PowerPoint, Skype, Twitter, Facebook, own website, Weblog (blogspot), Prezzie (alternative to PowerPoint), YouTube, Podcast, textbook plus online companion, LinkedIn, Open Source Software.

Table 1 is an illustration of the faculties represented by the respondents as well as the level of students taught:

Respondents	Faculty	Undergraduate/ Postgraduate
A	Commerce, Law & Management	Postgraduate students
B	Health Sciences	Undergraduate students
C	Humanities	Undergraduate students
D	Humanities	Undergraduate students

E	Humanities	Undergraduate students
F	Humanities	Undergraduate and Postgraduate students
G	Commerce, Law & Management	Postgraduate students

Question 1 addressed the issue of the use of Facebook. Respondents were asked whether they do make use of Facebook. They were also asked to indicate which other ICTs were implemented.

Table 2 is an illustration of the types of ICTs used by the respondents:

Respondents	ICT used	Use Facebook?
A	• Skype • LinkedIn • Own website	Yes
B	• WebCT • Twitter	Yes
C	• Blogspot with links to YouTube • Prezzie (alternative to PowerPoint)	No (but plans to use Facebook in future)
D	• WebCT • Textbook plus online companion with access to videos, podcasts, international Newsfeeds. • Open Source Software	No

E	• Textbook plus online companion • YouTube • PowerPoint • Podcasts	No (but plans to use Twitter in future)
F	• PowerPoint	No (but plans to use Facebook in future)
G	• Twitter	Yes

Three respondents out of the seven used Facebook and two indicated that they will make use of Facebook in future. More than one type of ICT was implemented by most of the respondents. Although it is almost expected that lecturers would make use of WebCT as this is a platform supported by the University, this was not the case.

4.3.1 Reasons for using various ICTs

(i) Administrative purposes

The use of the Internet or the World Wide Web provides academic staff and students with access to unlimited resources. Lecturers are able to upload course material which students can download and print and it also gives students an opportunity to reflect on course content before attending a lecture. Respondent A gave an account:

> *My course pack and my course materials are displayed on my own website…*

He elaborated on the advantages

> *The real good one is my website with the course pack. They (students) can have access to courses in Australia, in UK, in the USA, in Perth at the same time. That will enhance their learning.*

The students were able to access the course content on the website created by the lecturer as well as being able to access courses from other locations internationally. The availability of the course material online eliminated the administrative processes of handing out course material during class sessions.

Respondent D was intrigued when she discovered that

> *the library has the ability to create your own webpage or your own library page for your course where you can put up all your readings and suitable happenings to different sites and different readings to what you want your students to go and access.*

She had been informed by the librarian at Health Sciences that

> *they've basically moved away from putting all their readings into mini-packs and put them all online, especially because they can buy certain segments because they don't use necessarily the whole of a medical textbook. So to buy a whole medical textbook for a chapter is kind of stupid but what they can do, they can buy the chapter and put it on whatever discipline's webpage you have and access it and they can have access to it outside the library and anytime of the day and they're finding that that really helps them. And the Health Sciences librarians spend a good amount of time walking students through all the sorts of e-learning facilities that the library has.*

Textbooks are quite costly and very often students become exasperated that they spend a huge amount of money on a textbook in order to find that only one chapter from the book is required for the course. By making reading available online, Faculties are able to eliminate the unnecessary costly exercise for students.

Respondent C had opted to use a blog spot as a resource for course material and substantiated it by saying:

> *I prefer to use it because it allows me to go beyond my course and I can include links to things that I find interesting but might not have to incorporate*

in the course so like YouTube videos and pieces of research articles that I find interesting … it's turned out to primarily be a resource platform for students. I like it. I prefer putting everything on the blog and they can take a look and get it off and work in their own time.

Basically, issuing of all course material doesn't have to be done during class time and students have an opportunity to work at their own pace. They also have access to additional information via the links which may not be possible to incorporate during the lecture due to time constraints.

(ii) Extra channel of communication

By integrating ICTs into their teaching methodologies, lecturers have opened an extra channel of communication between lecturers and students and students with students. Respondent A described Facebook as a "forum" where

…you are going to have a good range of ideas inside. Obviously not all ideas are good. But the point is you are going to find different perspectives which is going to enrich me also, my research and my teaching approach.

Respondent G concurred that further research done by him, was prompted by discussions with his students on Facebook. The topic centred around Mobile Commerce/Banking and he conceded that he had learned a great deal from his students:

So to me it was a big lesson. And I actually started to research the topic. I went to each of the four banks in South Africa and they confirmed the fact that we are leaders in mobile banking. But I wouldn't have done that research had my students not provoked me, through social media. I've actually written a report, I think it should be about eighty pages, around the topic. But if it was not those Facebook discussions, we wouldn't have done that.

Respondent A viewed SNSs as an effective way to have asynchronous (as well as synchronous) communication and learning

> *You break time, you break geographical location, and you break all barriers of communication that is not possible to be in the same room. So it's good. Geography is no longer an issue. Time is no longer an issue. We can't always be on the same page. Obviously, they will access the Facebook at different times but the point is, we don't have to move to have something.*

Lecturers and students no longer have to be in the same physical space at the same time to communicate effectively.

Respondent D pointed out that the use of Twitter was an effective channel of communication especially with larger numbers of students:

> *…our students and lecturers will tweet between themselves you know to ask for clarification… I think it's a very effective way of mentioning queries and stuff especially in big classes.*

Respondent G supported Respondent D's view about support offered by SNSs to facilitate participation from students in classes with large student numbers. He said:

> *And I've noted in classes you have those few students who are very shy. For some reason they don't want to talk. Other than that one of our biggest problems at Wits on Main Campus, we have huge classes. And I'm serious about this – we want technology to help us to manage what we call huge class pedagogy for example, you do have, and I'm not exaggerating, one class that will have seven hundred students. Now what happens is you'll never get full participation of students so we think technology, and social media in particular, could encourage those students who could not participate could have their voice which is very important*

Respondent E was resistant at first to use Twitter but was amazed at the positive results of using Twitter.

> *But then I realised students during class were actually tweeting each other questions or comments or things like that and it also just opened my eyes to this world of different media in which to engage with the students but also a way for them to engage with me.*

(iii) Assessment platform

The traditional form of assessing students is done in class in the presence of the lecturer. However, using ICTs presented an alternative way of assessing the performance of students in the form of online assessments. Multiple-choice questions exercises could be completed online, at a time suitable for the students. Respondent E explains:

> *It was also a great way to get the students to read their required text 'cause the multiple-choice quizzes were on specific chapters, so that was very helpful. We could at least ensure they were reading some basic level of the textbook, which is good.*

Based on this feedback, lecturers felt confident that students were encouraged to read their prescribed text instead of relying on getting the information from the lecturer during a class session.

4.3.2 Reasons for not using Facebook or negative outcomes of using Facebook

(i) Accessibility

Access to social networking sites was restricted on campus by the University between specific times during the day. This was problematic for students as it hampered getting their assignments done. Although academics have fulltime access, students do not. Respondent C attested to this fact:

But it's access on campus which I found the most problematic and that's why I chose to end up going for a blog spot. On campus the students can't access Facebook before 5pm so it's restricted access as is YouTube and all the other kind of heavy bandwidth. The academics have kind of full access but the student access is restricted until 5pm. So it's one of the biggest hampering factors is the fact that the varsity blocks it as opposed to the use of it by the lecturers kind-of-thing.

As lecturers do not have control over Facebook, it sets itself up for abuse. People use fake identification or inaccurate identification or they use nicknames to hide their true identities. As a result of this, they are able to air their views without the risk of being identified, and these views are not necessarily constructive to the discussion. Lecturers found this ease of accessibility to the site problematic at times when 'uninvited people' join the discussion. 'Uninvited' as a result of not being part of the class group, but being able to join the forum as a result of having a connection with one of the group members. Respondent A related

Because you don't know those people, those people can jeopardise the real efficient use of the Facebook most of the time.

Concern was expressed over the ethical issues with the use of Facebook – about allowing students access to lecturers' personal Facebook accounts. On the other hand, senior lecturers reported that students have complained to them about intrusive communication from lecturers. Respondent D bore witness to the students' complaints:

"… I think ethically there's a lot of problems letting students access your personal private Facebook account. And I know that there is a lot of problems, from my students who have talked to me about joining lectures of Facebook accounts and find that they are being hit on by lecturers… I think if the University is going to encourage lecturers to use Facebook, then I think with lecturers there need to be very clear parameters between what is acceptable behaviour and what is acceptable use of Facebook and what is not."

(ii) Increase in workload

Having to manage online discussions can be cumbersome. Besides their lecture times, academics have to set aside time to follow up on discussions on the web. Respondent G explained

> "*I thought Facebook took a lot of my time as facilitator. I think it did enhance you know, it kept my students up to date on issues that were happening but it put a burden on me."*

Time-constraints were experienced by the respondents.

Respondent F added another dimension to the increase in workload:

> *… there's a resistance to investing your time into designing a curriculum. So now engaging with technology means you're going to update the curriculum to new things and you know that the pressure is on us to publish and not to teach. So I had a senior colleague yesterday who was "why you're wasting your time with this? I can't believe you're doing this! You should be publishing." And I think that's a huge reason as well why we're not engaging with other kind of pedagogical interventions… And there's some time required if you want to be responding on Facebook. It's an additional layer to your class. So I think that comes into it as well.*

Lecturers are pressurised for time in their use of Facebook and other ICTs as they struggle to manage the increase in workload in addition to the demands imposed on them with regard to publishing.

4.3.3 Impact on student participation

The researcher needs to clarify that students were not interviewed for this study and therefore the information presented is the behaviour or reaction which academics observed from their students with the implementation of ICTs and

therefore emotions described such as enthusiasm from the students, could be a perception from the academics or from feedback from the students to them.

The lecturers reported that they experienced positive responses from the students. This could be attributed to the fact that the students responded to online discussions, forums were established and students added their own links for further discussions and clarity on concepts. It should be noted that most discussions were supported by fulltime students - undergraduate and postgraduate – and in the younger age group. Respondent G observed that

> *when it's the fulltime students, there's more enthusiasm, they're participating. With part-time students, the participation was very low, actually all of them didn't even join the fan page, the Facebook itself and they wanted to know if there were really marks that they would get out of that.*

From this account it appears that part-time students, and in most cases these students belong to the older generation as well, require an incentive to join SNSs even for academic purposes. The point made is that younger people were more comfortable using technology. However, even though the younger generation is referred to as the Digital Natives (Prensky, 2001), inappropriate behaviour was observed when a group of medical students were introduced to Twitter in a pilot project. With the novelty of using social media for the first time for academic purposes, some students displayed playful behaviour. Fortunately in subsequent use of that particular ICT, behaviours changed and discussions proceeded.

When students had access to information online, it appeared to affect lecture attendance. The assumption is that the content downloaded from the web by the students, is deemed to be sufficient and that attending the lecture would be a duplication of the content. The concern expressed by the academic is that the students miss out on important discussions as those discussions are not covered by the material which was downloaded. Respondent C found this to be

problematic from a learning perspective because most of what is on the slide is one line, but I can speak about that one line for like twenty minutes.

Although no formal research had been done by lecturers to assess the impact of using ICTs on student performance, lecturers pre-suppose that there is a link and that implementing ICTs definitely enhanced student results. This was based on statistics compared from previous years' results and current results, where no ICTs were implemented previously. Respondent E

It's always hard to draw an absolute and empirical relationship between student outcomes and teaching methods. There's a correlation – absolutely. So this year we had a pass rate of 89% which is enormous. Last year we had a pass rate of 64%. So I'd like to believe there's a correlation 'cause there were similar things that we did last year that we also did this year… So still 64% pass rate last year versus 89% this year and we're still using the same methods – the only difference was that we had this companion website, we had access to the internet in the rooms so we could integrate YouTube and all that stuff into the actual lecture component, so that made a huge difference… So yes, I think it works really well and I think it facilitates positive learning…

Respondent A expressed his optimism that implementing ICTs will have improved results but emphasised the fact that no comparative studies have been done:

… should it enhance the learning, hopefully it will enhance the result but it's not proven because we did not do the comparative with the technology and without the technology and compare the two.

One of the aims of integrating ICTs in teaching and learning would be to engage with students in discussions. A further aim would be to arouse their interest in the learning of the course content. Respondent E acknowledged that in most lectures, it is basically the

lecturer communicating information across to students as opposed to this sort of learning process between both parties.

As a result, in collaboration with his colleague, they wanted to change that. They were curious to see

if ICTs could be used to change that dynamic, to not have it be that didactic approach, to instil a type of interactive atmosphere. So that was the premise with which we engaged ICTs in our class. Was always looking to see how to promote student engagement, how to facilitate a sort of deep level of student learning as opposed to the service level which sort of seems to be constant in the literature.

Respondent C verbalised his intention of using the blog:

For one, the idea was to have the notes up on the blog so that when they came to class all they had to do was listen and engage and not trying to take down a million notes. The intention was not only to facilitate online communication but also to use the classroom more as a platform for engaging as opposed to 'here's a slide, write down the notes' kind of thing. And I found that it's helped

By having the lecture notes beforehand, students had been encouraged to pay more attention to the lecture and to participate.

Respondent A reminded us that our current students are from a different generation. He said

they are new generations – tapping and using technology in everything they do… Look at the 'Did you know'-page on my website. And you will see there, they screamed in all universities that we use the wrong approach to teach them. They are not interested. University is boring. That's what students say. There is no excitement.

There is an appeal from students to have a more interesting and innovative learning experience.

Respondent D enthused about her positive experience about integrating ICTs:

> *I think that it is a great way of engaging students. It's also a great way of managing classes and you could so much more with technology than you could do before.*

Research has indicated that ICTs can be used to manage large class sizes. "One reason for the University of Johannesburg (UJ) adopting the WebCT LMS was to deal with large classes." (ICTs and Higher Education in Africa: South Africa, p. 92)

4.3.4 Lecturers' views and experiences of implementing ICTs

Positive as well as negative experiences were reported by the group of lecturers interviewed.

(i) Positive views and experiences

Academics appreciated the speed and ease at which information is spread via the web as information is instantly accessible and available. Respondent A shared his experience:

> *It's very easy to share and it's on time. There is lots of sharing. It's very easy to discuss on Facebook, it's very easy to post the most recent research and views and perspective on Facebook. Sometimes there are views and perspectives on Facebook that have not been empirically researched but it's better to do it on Facebook because immediately you get feedback, you share and make it happen.*

He felt that the learning experienced was enriched by the interaction.

Respondent B appreciated the versatility offered by Facebook for her purposes. She declared of her experience:

> *So I use that to communicate and to post things for students and on my page, my front page, they are free to talk to each other and supporting*

each other for exams or making queries about what's in the assignment or when is the exam due, or this thing and the other…it's been a positive experience and I started using it this year only…

She had not experienced any stumbling blocks since introducing the use of Facebook with her students.

Lecturers felt that by using ICTs, there was increased interaction between students and lecturers and amongst the students. Communicating about the same concept in different ways reinforced learning. Another positive spin-off included lecturers following up on links posted by students and consequently doing further research.

The use of ICTs is cost effective as vast amounts of monies are spent on copyright. However, by adding hyperlinks to the course content on the web, students are able to navigate to those sources themselves and save departments the effort and the cost of having the content printed.

Lecturers found that by integrating ICTs, the format of the lecture changed. Respondent E was in favour of this concept:

… *the use of ICTs and access to the internet, downloading a YouTube clip or access to the BBC website and all these sorts of things was very helpful in terms of that 'cause we could provide the context. We could project it on the screen and students could have a tangible connection with it. YouTube clips were equally helpful in communicating ideas across.*

His observation has been that students enjoy this type of learning experience.

In line with the Constructivist Theory, respondent E's response was that by implementing ICTs, it

instills an interactive atmosphere which promotes student engagement.

(ii) Stumbling blocks or negative experiences

The current LMS WebCT, which is supported by the University, did not appear to satisfy the requirements of the lecturers. Respondent B expressed her dissatisfaction:

> *… it doesn't have a lot of features that I would say makes that kind of a system really user-friendly and make it easier to communicate with students for example, you can't send them an email. If you put a presentation up, it has videos attached – it doesn't work. You know the videos don't play when they open the presentation… But because of those lacks in the WebCT system, I was finding it difficult.*

Respondent C attempted to use WebCT but became despondent:

> *I did right at the beginning and I was put off from the start in terms of just the control over it. The fact that students names had to be registered and if there were problems I couldn't sort it out. I had to keep on going through a third person and I didn't kind of find it user-friendly. The usability component of it wasn't straightforward in some sense…You'd actually have to know what's going on in WEBCT to be able to use it to its full degree.*

Lecturers looked forward to the new LMS, SAKAI, as an improvement to WebCT. Respondent G mentioned one of its features:

> …*SAKAI, the new learning management system that we are implementing now, indirectly encourages academics to do that – to use social media.*

4.4 Summary of the results

1. As a resource platform, implementing ICTs enabled access to further resources. Links were provided to encourage students to do further research on concepts covered in the lecture. These links assisted in offering further explanations in order to clarify concepts. Students were able to access videos, YouTube clips, podcasts, international newspapers and Newsfeeds to enhance their learning experience

and it offered an opportunity for them to be informed about current events. Websites were used to complement textbook content. The didactic part of the lecture was supported by a visual format.

2. The respondents found that Facebook was the most accessible platform to communicate with students and alumni. Time as well as geographical boundaries were transcended. Various ideas were shared and although some were not as informative, nevertheless an opportunity was provided to share.
3. Other forms of ICTs also assisted lecturers in posting information to students. Announcements were made in connection with due dates for assignments. Surveys were posted for students to complete.
4. Besides communicating with the lecturer, students also communicated amongst themselves. They offered support to each other and made enquiries about several issues for example, clarification on concepts or assignment dates, etcetera. Discussions and debates were promoted.
5. The use of Twitter enabled the tweeting of questions or comments amongst the students, and was useful particularly with large groups of students.
6. Although numerous positive experiences were reported, lecturers also felt that ICTs were not being used efficiently. Respondents looked forward to the new learning management system as an improvement on the existing one which would be phased out. They valued the interaction with their students provided by the use of ICTs. Lecturers are faced with a challenge of having to publish their research and with learning about new technologies and how to integrate it in their teaching.
7. One of the key stumbling blocks was restricted access to social media, which is a restriction imposed on by the University. Restricted access posed a challenge and had proved to be frustrating to lecturers and students.
8. Respondents were also faced with etiquette of engaging with social media and ethical concerns about using the net. The integration of

ICTs appeared to have a positive impact on student interaction and learning.

Summaries presented in tables are attached as Appendices.

A discussion of the results is presented in chapter 5.

CHAPTER 5: DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter discusses the findings of the study as presented in chapter 4.

5.2 Demographic profile of respondents

The respondents were not questioned about their age and therefore the researcher cannot accurately account for the age group. However, it can be said that the respondents are not at all extremely young – the researcher would dare to surmise that the average age of the respondents is 45 years. The reason for mentioning this is that one would expect the older generation to have an apprehension to integrate ICTs in their teaching and the results of the research has proven that this is not the case for this study. The researcher could detect a yearning from the respondents 'to do more' than what they are presently doing.

5.3 Discussion pertaining to the use of Facebook for academic purposes and other ICTs used

As a result of advances in technology and with the changing policies in education, lecturers are faced with having to integrate ICTs in teaching and learning, with the aim of improved learning outcomes. From the interviews conducted, it has been found that a few of the respondents do use Facebook for academic purposes and that others indicated their plans to utilise it in future. The lecturers have come to the realisation that this is the way forward to communicate with students 'on their territory'. With the aid of smartphones students access social networking sites using their mobile phones. This is an activity that they engage in constantly as it connects them to their own network of friends. It is natural for them. Lecturers have realised that students prefer to

log onto Facebook even before accessing their emails. In fact, one of the respondents believes that students actually think Facebook *is* the Internet. Another reason for using Facebook is that the information posted is available immediately and students' response is almost instantaneous. They feel comfortable responding to comments on Facebook. One particular concern is that not everybody registered on Facebook, registers with their true identities. Some use pseudonyms and nicknames. Concealing identities could be detrimental to discussions as derogatory or abusive statements can be made without fear of reprisal from the perpetrator. It goes without saying that this would not add value to the discussions and the learning process.

The exchange of information and ideas between the different parties enhances learning. Students are encouraged to think critically about issues raised by having the opportunity to reflect on course content. Deeper thoughts are therefore encouraged. Debates and ongoing discussions ensue as different viewpoints are put forward. Indeed, a forum is created. It is precisely this interaction that is sought after by academics from students.

Interacting on Facebook creates a micro-community. Students use it as a platform to encourage each other academically and to share their views and experiences about their courses. Students message each other for support and enquire about assignments or examinations such as due dates or the specific task, etcetera.

There is an indication that the older, part-time students are more reluctant to access social networking sites. The enthusiasm is primarily from the younger, fulltime students. This aligns with Prensky's definitions of Digital Natives and Digital Immigrants. This does not mean, however that only the younger students log onto social networking sites but it is indicative that a larger percentage of younger people are more inclined to do so as they are more familiar with technology.

5.4 Reasons for implementing various ICTs

There are various functions to the implementation of ICTs in the educational context.

Administrative purposes

There is no doubt that using ICTs will facilitate the administrative functions which include not only making course material available to students but other resources as well. Lecturers are able to upload course content electronically via a website which eliminates the need to physically hand out hard copies in class. Students absent from a lecture for various reasons would be in possession of the course material which avoids the issue of having to 'track down' the lecturer in order to get a copy of the material. Consequently, the lecturer would be 'freed' from having to deal with these types of issues. The administrative load in that respect would be lessened.

In order to enhance the learning process, the availability of additional resources is advantageous as students are exposed to additional explanations or illustrations of concepts. Course content is more accessible. Traditionally, the only source of information for students at higher institutions was the lecturer. Transference of information and knowledge was exclusively the role of the lecturer. This in itself is not a bad thing as lecturers are specialists in their fields, however it is beneficial for the learning process that students be exposed to and receive input from other specialists as well. It also displays a keenness and commitment on the part of the lecturer to have the students engaged in the content of the course by finding meaning from other sources. My opinion is that it is an indication that the lecturer has confidence in their knowledge and is willing to confirm their expertise by referring students to additional sources. It is reinforcing what they are trying to bring across to the students. The students in turn, will realise that the lecturer is an expert in their field in that would create trust in the abilities of the lecturer.

Assessment is valuable and important in any learning process. Clearly, lecturers desire a diversity of assessment strategies. With the advent of ICTs, lecturers are able to provide online assessments in the form of quizzes which is precisely what respondents D and E presented. Respondent D relates "*And therefore they did all their assessments (online)"* and respondent E concurs "*We also had like 3 multiple-choice quizzes that we ran through the website. So we used ICTs as part of the assessment process as well."* The advantage of online assessments is the immediacy in feedback that it provides. Instead of students waiting in anticipation of their results, it is available immediately upon

completion of the test online. It is an efficient process and assists in decreasing the workload of lecturers – to an extent. Online assessments save lecturers the time in having to mark tests. By incorporating online assessments, lecturers make allowances for students to complete it in their own space and time thus presenting flexibility for the students. It should be noted that the assessment should meet the educational objectives set for the particular course. Assignments submitted electronically can be reviewed by using track changes which means that the absence of hard copies lessens the physical load of carting paperwork.

Extra channel of communication

Students are renowned for needing constant reminders and for not always reading instructions. They often claim that they were not aware of an instruction to perform a particular task or unaware of due dates for assignments. Bearing this in mind, the respondents have indicated that using various forms of ICTs for communication purposes serves as a "*double reminder".* There is a sense that students are pampered by technology – pampered as there is no need to remember every announcement or instruction by lecturers as they can easily connect online or with their friends to get the required information.

The two types of communication and learning enforced by ICTs are synchronous and asynchronous. As explained previously, synchronous communication allows for immediate responses whereas asynchronous communication makes provision for delayed responses. The advantages are that students and lecturers are not obligated to share the same physical space or the same time-frames. Information and course content or discussions can be retrieved at a time and place suitable for the students.

The flexibility that ICTs provide can however also impose a burden on lecturers. Their 'office hours' become extended. The expectation is created that lecturers are available around the clock to manage online discussions and to respond to queries. This is not always fair on the lecturers.

5.5 Outcomes

Impact on student participation

"The use of information technologies is making possible new student-centred environments where students are guided to acquire the available information they can search by themselves in different sources" (Burkle, n.d.). Students desire new ways of teaching and learning as the traditional teaching methodologies tend to bore them. These Digital Natives want to learn with the aid of ICTs. Lecturers aspire to engage students in discussions and by posting notes on a website or blog spot, they eliminate the need for students to take down notes in class. Participation and interaction is heightened. Respondent C shares his notion

> *the idea was to have the notes up on the blog so that when they came to class all they had to do was listen and engage and not trying to take down a million notes*

There is a concern raised that by students having access to course notes and slides could have a negative impact on lecture attendance. Students are under the impression that they have the option to absent themselves from class as they are in possession of the notes. The problem lies with the fact that they miss out on important discussions and lecturers would elaborate on slide presentations. Students have to be made aware of the consequences of their actions and lecturers would need to encourage attendance by eradicating misconceptions as to why the content is available online.

Another concern is that students still expect to receive hand-outs as is implied by respondent D who says:

> *But the students are still pretty attached to the paper form of things*

Online discussions can assist with deliberation of sensitive topics as well as affording shy students the opportunity to contribute to discussions. Some students feel uncomfortable to voice their opinion publicly in a lecture but would feel more encouraged to do so electronically.

Even though respondents have not done a comparative study with regard to the impact of ICTs on student performance, they have affirmed to encountering more positive results. This is encouraging especially since it is becoming

mandatory for lecturers to integrate ICTs into their teaching to prepare their students for the knowledge economy.

5.6 Important findings of the study

Although it is evident that the academics are willing to implement ICTs, it is imperative that they are assisted by the eLSI unit for their expertise in developing the course. The lecturers will provide course content but Instructional Designers will develop courses electronically.

It is gratifying to discover that lecturers are willing to learn from their students. Learning becomes a reciprocal process as lecturers encourage students to add interesting links to discussions. In this way they learn from their students. This is important as lecturers do not regard themselves as the alpha and omega of the learning process and are receptive to the notion of being assisted in an area that they are possibly not totally comfortable with – this is with reference to the use of ICTs. On the other hand, they are also amenable to discussing relevant topics and consider meaningful constructive input from the students which emphasise their roles as facilitators. Lecturers do not simply provide students with learning content and information. These mutually beneficial relationships has spurred one respondent on to do further research and subsequently will be publishing a report on the research conducted.

The respondents have displayed positive attitudes about the use of ICTs. Even where stumbling blocks or obstacles were encountered, there was no indication of giving up. Instead they see it as a challenge to be more creative in order to circumvent the problems arising. This is encouraging as their tenacity would support their ongoing commitment to integrate ICTs in their teaching.

The respondents have expressed a gratitude to the eLSI Unit at the University of the Witwatersrand for their support and training which is indicative of the fact that continuous training and support is required in order for the successful implementation of ICTs. The Head of the eLSI Unit in turn has admitted that the staff of the unit need to create a greater awareness of the potential benefits of implementing ICTs to lecturers so that the uptake could be greater. They are aware that some lecturers have taken the legad themselves. There is an

indication that the new learning management system that will be introduced will encourage the use of social media.

Improvement of the infrastructure is also in the process.

The availability of resources has been investigated and students are now able to have access to mobile computers by means of a contract which the University has entered into with a service provider because what the institution currently offers is inadequate.

Despite the fact that some lecturers are willing to focus more on integrating ICTs in their teaching, they are faced with a dilemma of being pressurised to focus more on research. This is a situation which the University needs to take into account and explore avenues on how to overcome this. If teaching styles need to change in order to accommodate new ways of learning, then lecturers would require support from the institution in terms of their time.

5.7 Conclusion

The respondents interviewed are pre-disposed to implementing technology and are fully committed to continue the use of ICTs, even though some stumbling blocks have been experienced, but instead of becoming despondent and giving up, they have instead found other means to bypass their frustrations. As an African higher institution the University of the Witwatersrand's lecturers are making great strides towards integrating ICTs for academic purposes. ICTs are being utilised for administrative purposes, for teaching practices as well as communicating more effectively with students. Lecturers are taking ownership of e-learning activities at the institution.

Lecturers are taking cognisance of the fact that students are actively engaged in social networking and based on this knowledge there is an increased effort to use that platform constructively for academic purposes.

There is awareness from lecturers that implementing ICTs in teaching and learning is the way forward in education.

Despite the limitations associated with the research methodology, the findings of this research should be of interest to other researchers and lecturers.

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter provides a summary of the findings with reference to the context of the study and to provide recommendations.

6.2 Conclusions of the study

Technology dictates the way we in which we live and learn. The face of education has changed from the traditional 'talk and chalk' methodologies, to advances such as the use of overhead projectors with transparencies, followed by the use of PowerPoint presentations with the advent of the computer and currently the integration of social networking sites for academic purposes.

This study set out to investigate the attitudes of a group of academic staff in higher education towards the implementation of ICTs with a special focus on the social networking site, Facebook. The research design implemented was that of a case study as it was important to gain in-depth perspectives and to guage the views and opinions and experiences. Differences and similarities were recorded. Various ICTs were identified. Although there is some apprehension from academic staff to the changes taking place in education by the use of technology, it is overcome by attitudes of embracing change and being up for the challenge in implementing ICTs. There is positivity about transforming teaching and learning by using technology effectively. There is a realisation that learning through networking on the Internet is an effective method for reinforcing learning and that the increased access to information, is beneficial for academic purposes. One of the core challenges that higher education institutions face, is the throughput rate of students. The use of ICTs is not a guarantee that learning will take place but it should be noted that it can assist with the acquisition of knowledge. Lecturers should realise that their teaching styles would need to change and their roles would become that of facilitator.

Institutional support can assist towards positive attitudes in the implementation of ICTs. It is envisaged that an increase in academic support will increase the student throughput rate (Ng'ambi & Johnston, 2006).

6.3 Recommendations

The eLSI Unit has an important function in the University. It is recommended that the results of this research be utilised by the staff employed in this unit in order to identify shortcomings and the type of support needed by academic staff. Other academics should also have access to the results to have an awareness of what their colleagues are doing in order to feel less intimidated by ICTs or otherwise to feel a connection as they are doing likewise.

6.4 Suggestions for further research

The following suggestions should be considered:

i. since the sample size was relatively small, further research is recommended;
ii. the study should be expanded to include students as the assumption cannot be made that all students prefer the use of ICTs in teaching and learning;
iii. although relatively difficult, a comparative investigation should be considered to assess whether the use of ICTs will improve students' results;
iv. as technology is constantly evolving, continuous research will be required to assess whether educational outcomes are met;
v. the inclusion of other faculties should be considered especially as there is a perception that the Science and Engineering Faculties would be more competent with technology;
vi. the study did not look at policy regarding the implementation of ICTs and therefore further research could be conducted to establish firstly, whether a policy exists at the institution and secondly, if so, to assess to what extent it is implemented.

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APPENDIX A

Participant Information Sheet

Protocol number: 2011ECE147**C**

I, Kathy Cannell, a registered M.Ed: Educational Technology student with the University of the Witwatersrand, hereby request permission to conduct an interview.

My research focuses on the integration of ICTs (Information and Communications Technology) by Wits Lecturers and specifically on the use of Facebook, a social networking site, for academic purposes. The goal is to investigate the experiences by the Lecturers and to examine the advantages and disadvantages of using Facebook.

A brief interview is requested which I anticipate should not exceed 30 minutes. A few structured questions will be asked but it is envisaged that participants will elaborate on their experiences. Interviewees will be audio-recorded. The recordings will be stored for a period of 3-5 years and thereafter the recordings will be erased/destroyed. Participation is voluntary and interviewees have the right to request that the interview/recording be stopped at any point.

Complete anonymity is guaranteed by means of pseudonyms and there is no risk of job loss or intimidation in any form. The sole purpose of the study is for research.

I thank you in anticipation of assisting me.

I may be contacted on 082 805 2261 or kathy.cannell@wits.ac.za

APPENDIX B

Consent Form for interview

Protocol number: 2011ECE147**C**

Student: Kathy Cannell

Degree: M.Ed: Educational Technology

Title of research: The integration of ICts by Wits Lecturers

Participants to be interviewed: Wits Lecturers

I hereby voluntarily consent to being interviewed. I understand that the interview will be for research purposes only and that complete anonymity is guaranteed. I also understand that I can withdraw from the interview and request that the interview be stopped should I feel the need to do so.

Name of Lecturer: (please use a pseudonym) ……..

Date: ……

APPENDIX C

Consent form for audio-recording

Protocol number: 2011ECE147**C**

Student: Kathy Cannell

Degree: M.Ed: Educational Technology

Title of research: The integration of ICTs by Wits Lecturers

Participants to be interviewed: Wits Lecturers

I hereby voluntarily consent to being interviewed. I hereby grant permission to be audio-recorded. I understand that I can request that the recording be stopped at any point. I also understand that the interview will be for research purposes only and that complete anonymity is guaranteed.

Name of Lecturer: (please use pseudonym) ……..

Date: ……

APPENDIX D

Interview Questions

Research title: The integration of ICTs by Wits Lecturers

Student: Kathy Cannell

Degree: M.Ed: Educational Technology

(The interview will be semi-structured, with interviewees elaborating on their responses)

1. Why do you make use of Facebook in your teaching?

2. How do you use it?

3. How often do you make use of it i.e. frequency of use?

4. How do you access Facebook i.e. via Computer or your mobile phone?

5. Are there benefits to using Facebook for you in your teaching?

6. Are there any disadvantages or challenges that you have experienced in using Facebook for academic purposes?

APPENDIX E

Table 3 represents the reasons by respondents for integrating ICTs:

Respondents	Reasons (Constructive/positive outcomes)
A	• Most accessible • Easy to share current thinkings • Various ideas/ some good, some not so good • Break geographical barriers, time
B	• To communicate and post information • Students talk to each other; support; make enquiries • Announcements; due dates; surveys; links
C	• Blogspot: intention was for communication platform but turned out to be resource platform for students. Links to YouTube and articles • Lecturer in control of blogspot, do add-ons, send to other destinations on web
D	• E-web companion offers videos, podcasts, access to international newspapers and Newsfeeds. • Online assessments
E	• Instills interactive atmosphere which promotes student engagement • Textbook with online presence, podcasts and news clips. Follow up current events in newspapers. • Multiple-choice quizzes on website. Assessment process. Students compelled to read course material. • Visual • Using Twitter enables tweeting of questions or comments
F	• Anticipation for future use of Facebook – students excited and motivated. It is current. It is where students are at.
G	• Appears that fulltime students are more enthusiastic in participating • Fan page on Facebook is linked to Twitter • Younger students more committed to using Facebook • Promotes debates and discussions

APPENDIX F

Table 4 is a presentation of the respondents' reasons for not using Facebook and for those who have used Facebook, an indication of negative experiences:

Respondents	Reasons for not using Facebook or Negative outcome of using Facebook
A	• Risk of abuse because people are not afraid to go onto Facebook and air their views. • Some people use nicknames and hide their true identity. • Facebook is too exposed and therefore too vulnerable. • No control over Facebook.
B	• No negative experience. Students very polite.
C	• Access on campus is problematic and is restricted before 17h00.
D	• Ethical issues about letting students access lecturers' personal Facebook account. • Students 'get hit on' by lecturers. • Will only use Facebook if a page is set up separately for the course.
F	• Going to use Facebook in future. • The negative might be that the students are more adept at using Facebook but the respondent is willing to learn from the students.
G	• Respondent struggled to manage discussions as it took up a lot of time. • Writing language would be problematic at times as students would use SMS language which the respondent found difficult to understand.

APPENDIX G

Table 5 is a representation of the responses that respondents observed from their students about the use of ICTs:

Respondents	Students' motivation/responses
A	• Good response from students. • Good discussions. Forum. • Range of people from different backgrounds/sectors so range of different ideas, although different perspectives are not always good/constructive. • On respondent's own website, students have access to courses overseas and access to gurus in specific fields. The aim is to enhance learning and ultimately results.
B	• With first experience of using Twitter, students behaved inappropriately by making silly comments and being playful. They were not serious. • With the second experience of Twitter, it was used for the purpose of the discussion. • On the Facebook page, the students message and support each other.
C	• Using the blog spot probably affects lecture attendance negatively because students get the work/slides off the blog. • Students use it as a substitute for learning rather than an addition. • Prezzie is more visually stimulating than PowerPoint. • YouTube videos are interesting and it's a platform that the students are used to.
D	• Sometimes access is problematic. • Literacy is problematic.
E	• Students have tangible connection with the use of ICTs. • Students love 'things' like YouTube. • Students don't mind tweeting a question but could feel intimidated in a large group to raise their hand and ask a question. • ICTs are used to advance concepts and have discussions. • There is definitely a correlation between student outcomes and teaching methods. The pass rate in the course has improved tremendously since using ICTs. • Respondent supports use of cellular phones and laptops

	in the lecture as students can verify information at the same time that lecture is taking place.
G	• Fulltime students are more academically loyal. • It is natural for young people to use social media and respondent believes that age does matter when it concerns social media. • Current students were born in technological era. • Older/part-time students are more sceptical about using social media. They want to clarify whether it is for marks. • Students are kept up to date with issues but students lose interest in a topic very quickly. • Students also add links to topics which they find interesting. It has actually spurred the respondent to write a report on a particular topic.

APPENDIX H

Table 6 represents the respondents' experiences of integrating ICTs:

Respondents	Lecturers' view/experience of ICTs
A	• Facebook is fast – a quick way to spread information or share information. • Different perspectives enrich individuals and the research and teaching approach. • Technology is not properly and efficiently used in today's education. • Some lecturers fear that they are too old to learn to use new technologies. • We need to tap into technology because our students are from a different generation. Students want more excitement in teaching.
B	• WebCT has shortcomings. It is not really user-friendly and one cannot send emails. • SAKAI promises to be more effective and efficient. • Facebook page is very versatile and works well. • Students communicate quite broadly. • Unsure about University's policy on ICTs.
C	• Respondent would prefer using Facebook but restricted access is a hampering factor. Will try to use Facebook in future though. • Likes using the blog site. • Didn't experience WEBCT as user-friendly. • Prezzie is quite useful and more interactive than PowerPoint. • Using ICTs is interesting for students and it also serves to keep the respondent's interest. • Intention was to facilitate online communication and use the classroom for more engaging of course content.
D	• Using technology is a great way of engaging students. • It is a great way to manage classes. • It is a saving on astronomical fees for copyright as hyperlinks can be added to course content. • Setting up of courses takes time initially but then it will just require tweaking once it is set up. So, initially it will be time-consuming but subsequently it will save time.
E	• Using ICTs is a nice way to break up a lecture where the lecturer is the centre of focus. • It's a different way of communicating the same concept; to reinforce the lecture. • Respondent uses ICTs to further student engagement

	and learning. • Supportive of students using cellular phones and laptops in class. • Using ICTs facilitates positive learning. • Respondent feels that we have to meet the needs of students and give them space to learn in a way that makes them comfortable.
F	• It is quite nice. • One reason for not engaging with other kinds of pedagogical interventions is that lecturers are pressured to publish. Another reason is apprehension about using technology. • Respondent is prepared to learn and appreciates the support from the eLSI Unit.
G	• Facebook discussions encouraged respondent to do research on comments and topics posted by students and consequently wrote a report. • Using ICTs has good spin-offs. • Social media constitutes a huge chunk of learning so we encourage that. • There is a need to sensitise academics to the use of ICTs. • We need lighthouses – more people who can show the benefits of using ICTs. • We need technology to manage huge class pedagogy. • The information is current. • There needs to be an agreement on etiquette before using social media.