

# **SOCIAL MEDIA USE AMONG NMMU STUDENTS**

**By**

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**DECLARATION**

I, Hassan Mohamed 20423461, hereby declare that this dissertation entitled *Social Media use among NMMU students* is my own work, that all sources used or quoted have been indicated and acknowledged by means of complete references, and that it has not previously been submitted for assessment or completion of any postgraduate qualification to another University or for another qualification.

.....

Signature

**HASSAN MOHAMED**

.....

Date

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## EXECUTIVE SUMMARY

This research provides insight into the use of social networks and social media by students at the Nelson Mandela Metropolitan University. The primary purpose of this research is to investigate student social media practices at NMMU to establish the reasons for students engaging in social media.

A growing number of educators acknowledge the potential of social networking to (re)engage learners with their studies, while others fear that such practices compromise and disrupt student engagement with *traditional* education provision (Selwyn, 2009). This study, therefore, aims to identify how and for what reasons students use social networks and social media.

This study attempts to provide answers to the following research questions:

- For which social networking sites do students register and actively engage in?
- What is the most popular social networking site for students?
- How often do students engage in social media practices?
- What is the main purpose for students engaging in social media practices?
- How do students gain access to social media?
- For what educational purposes can social media be used?
- For which business purposes can social media be used?
- Do students use social media to collaborate with peers and lecturers?
- Do students use social media to make buying decisions?

The literature overview was conducted on social media and social networks from journals and books published between the periods 2003 to 2011 as the popularity of social media came to the forefront during this period. Topics researched included social networks and libraries, educational and business uses of social networking and social media. A quantitative study was considered to be most appropriate to conduct the research for this study; and non-probability sampling was the most appropriate given the size of the population and the nature of this research.

Students were invited to participate in the research by completing and submitting a survey questionnaire at the conclusion of their lectures in the second semester during the month of September. The data collected was then analysed using descriptive and inferential statistics to provide insight into student use of social media. The results would determine if relationships exist between the independent variables from the questionnaire, namely, age, gender, campus and course enrolment and the dependent factors, namely, usage, information exchange and security. This relationship would be determined for both the perceptions of social networking in general and the perceptions of NMMU social networking. These results are then used to identify further areas of research in the future.

The majority of the population sample was between the ages of 17 and 21 and primarily females. The sample typically became aware of social media by means of word-of-mouth and accesses their social networking site/s more than five times a day. The main reason for registering and joining social networking sites was for social purposes. Furthermore, the sample used social networking sites for entertainment, social involvement, meeting new friends and maintaining relationships. The sample agreed that social networking makes information searching easier. The majority of the sample indicated that they were not registered on any NMMU Social Networking sites of the university or any faculty, department or unit social networking sites at the NMMU. However, it was clear that the majority of students was registered on social networking sites of some sort and would continue to use social networking and social media.

The results from the study indicated that the mean value for the perceptions of social media in general were greater than that of the perceptions of NMMU social media in terms of usage. Likewise, the mean value for the perceptions of social networking in general was also greater than that of the perceptions of NMMU Social Networking for information exchange but the difference were very small. However, the mean value for the perceptions of NMMU Social Networking showed a greater mean value than that of the perceptions of social networking in general in terms of security. This means that respondents used social networking in general more than NMMU Social Networking.

However, the respondents perceived NMMU Social Networking sites to be more secure than social networking sites in general.

The results of this study could provide Higher Education Institutions in South Africa with the impetus to use social networks and social media to enhance students' learning experiences.



## **CHAPTER ONE**

### **INTRODUCTION AND BACKGROUND TO THE STUDY**

#### **1.1 INTRODUCTION**

Generation Y students are born into a highly digital world and come into higher education with vast experience in social media. Dawley (2009) states that 55% of teens and 82% of undergraduate's use social networking. In addition, businesses and other organisations also require future employees who are proficient in this technology. Innovative businesses are beginning to use Web 2.0 technologies as a way to enhance communication, information sharing and collaboration allowing them to implement many innovative business practices (Burrus, 2010).

Social media consists of rating and review sites, video and content sharing sites, blogs, specialty groups and social networks such as Facebook, MySpace, Twitter, YouTube and LinkedIn. These collaborative platforms are known as Web 2.0 technologies and are characterised by high levels of interactivity (Selwyn, 2007), and through social networking have created new ways to communicate and share information. Social networking services are used on a regular basis by millions of people on a daily basis and it seems social networking will become an ongoing part of everyday life (Dwyer, 2007).

It is important to understand these social media trends as they relate to incoming university students, and their use of social networking as a communication mechanism. Students are now learning through technology which has a causal relationship with the development of knowledge (Dawley, 2009).

This study investigates how students use social media and what the main purpose is for their engagement in social media.

## 1.2 BACKGROUND TO THE STUDY

A social networking site is an online site where a user can create a profile and build a personal network that connects him or her to other users for a variety of professional or personal reasons (Dawley, 2009). Examples of social networking tools include:

- Social sites: MySpace, Facebook, Twitter
- Photo sharing: Flickr, PhotoBucket
- Video sharing: YouTube
- Professional networking sites: LinkedIn, Ning
- Blogs: Blogger.com, Wordpress
- Wikis: Wetpaint, PBWiki
- Content tagging: MERLOT, SLoog
- Virtual worlds: SL, Active Worlds, There, Whyville, Club Penguin, HiPiHi

Associations of students with social media occur voluntarily without universities doing anything intentionally except providing a place where the students can connect and gather around similar interests at the institution. With all the necessary hardware and software requirements available as well as access to the applicable software, all that is then required is the setting up of Web 2.0 platforms needed for the students to engage.

Lavrusik (2009) lists ways universities share information using social media:

- **Gathering and sharing information**

Universities and educational institutions use social media to highlight their expertise and resources they make available to the public. The idea is to educate and provide glimpses of what the institution is like.

- **Displaying student and faculty work**

Exceptional work or achievements from faculties or students can be displayed in the form of text, audio and video, which can be shared on multiple social media sites.

- **Providing a platform to broadcast events**

Instead of just promoting an event, universities can use these tools for students to engage and actively participate in the events as it happens.

- **Emergency notification**

As students check their Facebook or Twitter more often than their school email accounts, announcements concerning cancellation of classes can be made. It is also found to be easier and quicker to spread news during an emergency using social media posts.

- **Connecting people**

Students have the opportunity to connect with one another as well as with their lecturers.

- **Creating a dialogue and communicating to students**

As social media provides two-way dialogue and allows for discussions between multiple audiences, universities use social media to engage with the public.

- **Getting connected via mobile**

iPhone applications can be created that allow students to register for classes and access campus maps. For students who do not own or have access to an iPhone, a mobile web client can be created to allow students to access their mail and check their calendars using a mobile device.

Students are customers themselves and will in this manner be involved in business. However, students will also soon enter the world of work where their knowledge on social networks will assist them to adapt to business. There are various social networks that can be used in the business environment, and Burrus (2010) lists various personal tools with business applicability, namely:

- **Facebook**

Organisations can connect all of their employees, or members, with Facebook. Some businesses are already using internal, secure versions of Facebook, which has helped organisations increase their internal networking and collaboration.

- **Twitter**

Instead of answering the question “what are you doing”, businesses could change that question to “what problem are you trying to solve?”. For example, a number of companies have used Twitter as a fast way to solve problems. Hotels, airlines and airports are using it to advertise services, travel updates and respond to travellers’ needs.

- **Wikipedia**

A large manufacturing company with engineers in locations around the world has increased problem solving and collaboration by creating an internal, secure version of Wikipedia for sharing information on parts and service offerings as well as repair and maintenance instructions. Retailers and suppliers could create a version of Wikipedia to foster education and training as well as enhanced information sharing.

- **YouTube**

Businesses are posting humorous commercial videos to generate interest in their products which have been successful as the more entertaining the videos are, the more people watch them. Business partners could create a YouTube-like channel for the purpose of educating and training.

Burrus (2010) further states that Business 2.0 tools include:

- **Wiki**

A collaborative web page or collection web pages designed to enable anyone to create a quick web page that allows visitors to search the Wiki's content and edit the content in real time, as well as view updates since their last visit. Wikis are often used to create collaborative Web sites and to power community websites. Additional features include calendar sharing, live AV conferencing and Really Simple Syndication (RSS) feeds.

- **LinkedIn**

LinkedIn is a business-oriented professional networking website for exchanging information, ideas and opportunities. Large insurance companies use LinkedIn to foster networking with their independent sales representatives, therefore, HR professionals from all over the world could use LinkedIn to share best practices.

Considering the ways in which universities can share information with students and the public use of social media, it is evident that social media can enhance and make students learning experiences easier and convenient. Businesses can also use social media, with which graduates are familiar, to make their first-time working experiences more collaborative and informed. This study, therefore, investigates how students use social media and the main purpose for its use. The intention is to provide information to various role players such as universities and future employers (business) about the social media practices of students.

### **1.3 LITERATURE OVERVIEW**

In this section, a brief literature review of the study is provided including social media concept definitions, the history of social media and social networking platforms, the significance of social media and social networking, social media and library services and educational uses of social media.

### **1.3.1 Definitions of study concepts**

#### **a) *Social media***

Social media are primarily Internet- and mobile-based tools for sharing and discussing information. The term most often refers to activities that integrate technology, telecommunications and social interaction, as well as the construction of words, pictures, videos and audio (Social Media Online, 2011).

#### **b) *Social networking***

Social networking includes web-based services that allow users to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system (Boyd & Ellison, 2007).

#### **c) *Hardware and software***

Hardware refers to the physical components of a computer, including a hard drive, monitor, memory chip or CPU. Therefore, hardware is equipment that can be touched.

Software refers to something intangible. Although often of great value, software cannot be picked up or weighed, and is needed to make hardware function. Likewise, software needs hardware to be of any value (Alexandrou, 2011).

#### **d) *Web 2.0***

Rather than static pages that simply reveal information (Web 1.0), Web 2.0 allows users to interact with the information (Krynin, 1997), and includes technology such as blogs, podcasting, social networking sites, video-sharing sites, hosted services, web applications and wikis.

Web 2.0 can be “loosely defined as the evolution to a social and interactive Web that gives everyone a chance to participate”(Kroski, 2007). The major difference between Web 2.0 and Web 1.0 is who creates the content; and for Web 2.0, it is created by the user (Shu & Chuang, 2010).

**e) *Business 2.0***

Business 2.0 involves using the new web-based social networking applications in a way that fosters innovative teamwork, customer co-creation of value, collaboration with external partners, and interactive communication between leaders and employees in an efficient way (Burrus, 2010).

**f) *Facebook***

Facebook is a free social networking website that allows registered users to create profiles, upload photos and video, send messages and keep in touch with friends, family and colleagues. According to Facebook Online (2008), the site is available in 37 languages and includes public features such as allowing members to

- Marketplace - post, read and respond to classified advertisements
- Groups - find each other and interact around common interests
- Events - publicise an event, invite guests and track who plans to attend
- Pages - create and promote a public page built around a specific topic
- Presence technology - see which contacts are online and chat

**g) *Twitter***

Twitter is a social networking and microblogging service for friends, family and co-workers to communicate and stay connected through the exchange of quick, frequent answers to a simple question “What are you doing?” by sending short text messages 140 characters in length, called *tweets* (Twitter Online, 2011).

#### ***h) Mobile web client***

Mobile web client refers to the use of Internet-connected applications, or browser-based access to the Internet from a mobile device (Mobile Web Online, 2011).

#### ***i) Web pages***

A web page is a document or information resource that is suitable for the World Wide Web and can be accessed through a web browser and displayed on a monitor or mobile device. This information is usually in HTML or XHTML format, and may provide navigation to other web pages via hypertext links (Web Page Online, 2011).

#### ***j) Applications***

An application is defined as a computer system (including multiple programs) that is designed to accomplish operational tasks or functions that help users to perform their work (Application software Online, 2010).

### **1.3.2 History of social media and social networking platforms**

Social networking websites started emerging in 2002 to develop ties between users as *friends*. Early examples of such sites are Friendster, Tribe, Flickr, Facebook and LinkedIn (Downes, 2005). Rather than building relationships, for example, online dating sites, these sites sought to develop networks or *social circles* of individuals with mutual interests.

Facebook is a social networking site that was founded in the United States of America (USA) in 2004, by a Harvard University student, Mark Zuckerberg (Quan-Haase & Young, 2010). The site initially targeted students at Harvard University but later expanded to include other universities, colleges and high schools. Although registering initially required users to have university email addresses, Facebook later expanded to workplace networks, and in September 2006, it granted access rights to anyone.



In April 2010, Facebook recorded over 400 million active users (Facebook, 2010). Some of the key interactions a user can have with Facebook are creating profiles, making friends, and publicising activity.

Table 1.1 provides the basic building blocks of a Facebook profile.

**TABLE 1.1: BASIC BUILDING BLOCKS OF A FACEBOOK PROFILE**

Block	Information it can contain
Information	Basic – Age, gender, religious and political views Contact – Telephone, address Relationships – Status and what users are looking for. Users can link profiles with their partners Personal – Details of hobbies and interests Education – Where users have studied Work – Current and past places of employment Pictures –Place to store pictures for profile image use
Status	A place to write what a user is currently doing/thinking
Friends	A listing of six of a user's friends and their profile pictures and a link to a page displaying all a user's friends. The listing of six friends is randomised by a Facebook application
Friends in other networks	A list providing an analysis of the networks users have friends
Photos	A list of user-created photo albums generated via an application that allows users to upload photographs to their profile. Photographs in which a user has been "tagged" that are part of another user's profile are also listed here. Typically, a user adds a name (a tag) of those individuals who appear in the photographs. The tags attached to each photograph can be searched via a dedicated search dialog box. Users do not have to give permission for their name to be used in the tagging process and if they want their name removed, they have to either remove it manually or request that their friend removes the photograph. Users cannot prevent other users from tagging them in photographs. Non-users of Facebook can be tagged in photographs, but they cannot be searched for using the search feature.
Video	A facility to post videos to a profile
Notes	A place to write notes and import them from others places on the web, such as blogs
Groups	A list of Facebook groups a user belongs to
The Wall	A bulletin board where friends can leave messages, notes, good wishes and other comments

Source: Light and McGrath (2010)

From Table 1.1, it is evident that Facebook includes a variety of applications that contain information which is shared among users.

Since its development, MySpace has been a popular social networking site in USA (Dwyer, 2007). MySpace reached 100 million accounts in the USA on 6 August 2007 and attracted 230 000 users daily. MySpace also had a head start getting into the global market, launching its first international site in Britain in April 2006, before expanding into other European countries and more recently in other countries including India, Russia, and South Korea. There are 29 translated versions of MySpace specialised for 25 countries (Dwyer, 2007).

### **1.3.3 Significance of social media and social networking**

Facebook provides a space where the “role conflict” that students experience in their relationship with university work, teaching staff, academic conventions and expectations can be worked through in a relatively close “backstage” area (Selwyn, 2009). Social networking sites have also become one of the most prominent categories of social software made popular by MySpace and Facebook applications which have millions of users. Social networking sites are personal and personalisable spaces for online conversations and sharing of content based *profiles* where users represent themselves to other users through the display of personal information, interests, photographs and social networks. Users maintain their own profiles and can access the profiles of others on the network to make connections with preferred friends. Because of the many features, social networking sites function in different ways, depending on user preferences. For example, users can use social networking sites to *hang out*, learn about each other or simply as a directory (Stutzman, 2006). The orientation of social networking sites towards self-presentation, the viewing of others’ personal information and multiple means of communication and exchange has proved attractive to students in university settings (Stutzman, 2006).

### 1.3.4 Social media and library services

For academic libraries to remain important and useful to students, it is necessary for them to determine how students access and use information (Walker, 2006). However, to improve student and faculty teaching and research collaboration experience, librarians now have an opportunity to step-up to the challenge of *visibility* within social media environments (Mitchell & Watstein, 2007).

Some studies consider librarians' potential use of Facebook to promote library services and events. For example, specifically concentrating on students' cultural and social interests, and how they interact online, as this may help older generations of academic librarians to better connect with students (Bosch, 2009). In South Africa, there are several library-related Facebook groups, but membership is still relatively low (Bosch, 2009).

Koerwer (2007) and Miller and Jensen (2007) offer a few practical tips to help librarian groups move beyond just a few students requesting books or asking reference questions. These include *friending* student library assistants; showing profiles at library instructional sessions; using the news feed to update the library's status or blog, or photograph new books; or creating events for book groups or exhibit openings.

### 1.3.5 Educational use of social media

The prominence of social networking sites in the lives of learners has captured the interests of educators. It is believed that social networking applications share many of the qualities of good education technologies, for example, permitting peer feedback and matching the social contexts of learning (Mason, 2006). The conversational, collaborative and communal qualities of social networking services are felt to mirror much of what is known to be good models of learning, in that they are collaborative and encourage active participatory role for users (Maloney, 2007). Social networking sites may also benefit students by allowing them to enter new networks of collaborative

learning, often based around interests not catered for in their immediate educational environment.

For Maloney (2007), social networking sites such as MySpace and Facebook have shown that students invest time and energy in building relationships around shared interests and knowledge communities. This has convinced some educationalists to include social networking to the conventional interaction and dialogue between students and educators. Some have also welcomed the capacity of social networking services to offer educators a forum for “easy networking and positive networking with students” (Lemeul, 2006).

### **1.3.6 Business use of social media**

Businesses are able to reach larger audiences and reduce the time-lag to market by using the Internet. Previously, the goal of online marketing campaigns was to get the customers attention and browse through the company’s website, but the aim changed to become one of creating sustained engagement with the customer (Harris & Rae, 2009). Websites such as YouTube and Facebook demonstrate how the Internet is changing. For example, users are no longer just downloading static data but are also uploading and sharing content among themselves, leading to the creation of social networks and other user-generated content sites.

Strategic Direction (2009) identify that business leaders need to understand that social networking tools can be used to

- enable speedier location, access and sharing of information
- enable more efficient control of contacts and knowledge
- help retain key employees by improving satisfaction in the workplace
- break down time and geographical boundaries to improve communication between widely dispersed personnel
- reduce expenses
- improve productivity and competitiveness

## **1.4 PROBLEM DEFINITION**

Studies conducted on social media have focused on how librarians can use social media to engage students to access information and to use the information (Walker, 2006). As one of the challenges for making libraries visible within social networking environments, studies were conducted to identify how students interacted in an online environment to better connect and engage with students.

Other studies have included ways in which education can be incorporated into social media and social networks (Maloney, 2007). Social networking sites such as Facebook and MySpace have been subject to much recent debate within the educational community. Whilst growing numbers of educators acknowledge the potential of social networking to (re)engage learners with their studies, others fear that such applications compromise and disrupt young people's engagement with traditional education provision (Selwyn, 2009).

It is clear that not much research exists on the social media use of students. As students form such an important market segment, the question can be posed as to which social media students are using and for what purpose they use it?

## **1.5 RESEARCH OBJECTIVES**

The primary and secondary research objectives are as follows:

### **1.5.1 Primary research objective**

The primary objective of this research is to investigate student use of social media at NMMU to establish the purposes for students engaging in social media.

### **1.5.2 Secondary research objectives**

To give effect to the primary objective of this study, the following secondary objectives have been formulated:

- To conduct a literature review on how and which social media is used by students in higher education as well as how and which social media is used by businesses
- To select an appropriate research methodology and research design for the study
- To develop a research instrument and select a study sample to collect and analyse primary data
- To determine social media preferences of students at NMMU
- To identify various purposes for students use of social media
- To develop guidelines on why students use social media to the benefit of different groups
- To provide pertinent conclusions and recommendations based on the findings

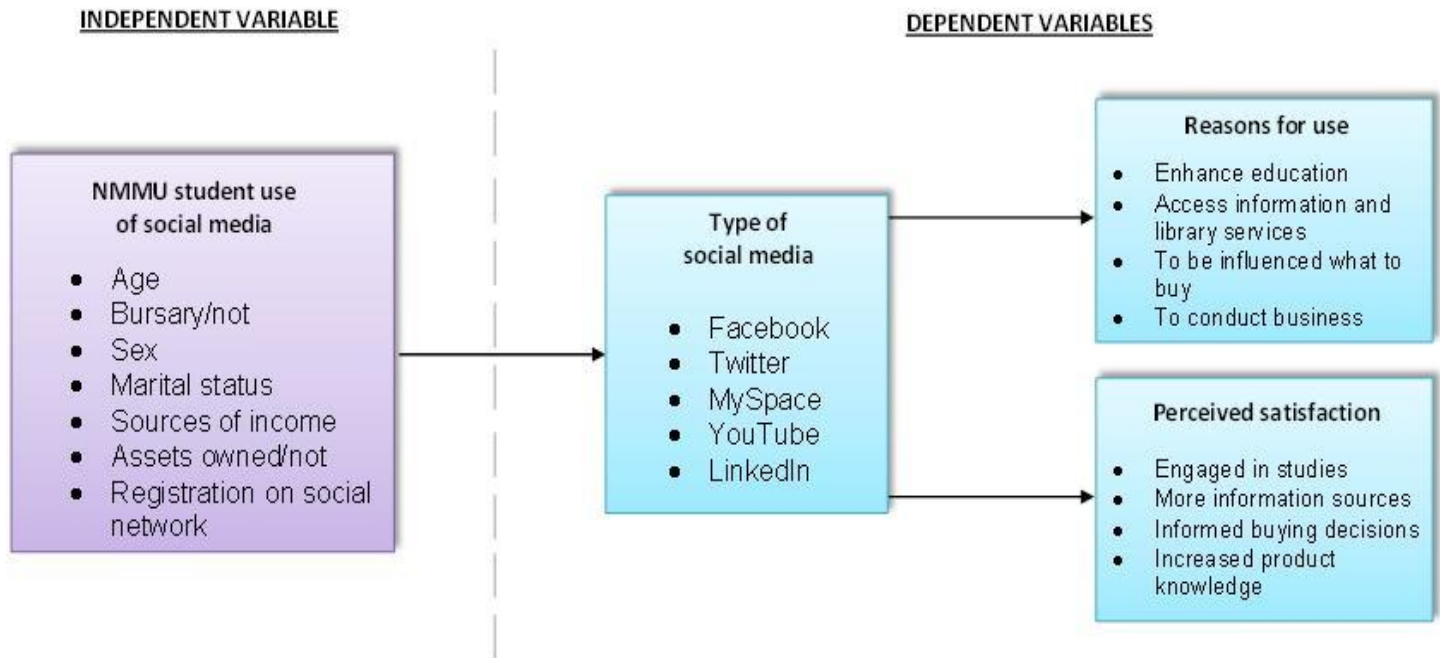
### **1.5.3 Research questions**

The following questions are explored /investigated to reach a comprehensive conclusion on the social media use of students at NMMU by determining:

- Which social networking sites can students register for and actively engage in?
- What is/are the most popular social networking site/s accessed by students?
- How often do students engage in social media practices?
- What is the main purpose for students engaging in social media practices?
- How do students gain access to social media?
- Can social media be used for educational purposes?
- Can social media be used for business purposes?
- Do students use social media to collaborate with peers and lecturers?
- Do students use social media to make buying decisions?

## 1.6 THE CONCEPTUAL FRAMEWORK

From the literature overview and study questions, Figure 1.1 outlines the conceptual framework to be used in this study.



Source: Researcher's own construct

**FIGURE 1.1: STUDY'S CONCEPTUAL FRAMEWORK**

From Figure 1.1, it is evident that five types of social media are to be included in the study. It also shows that both the reasons for use of the social media as well as the perceived satisfaction of social media use are to be investigated.

## 1.7 RESEARCH DESIGN AND METHODOLOGY

To achieve the objectives of this research, primary and secondary research will be undertaken.

### **1.7.1 Secondary research**

A comprehensive search was conducted to identify as many sources as possible on social media use with specific reference to university students. International and national data searches were done by the library of the Nelson Mandela Metropolitan University (NMMU) and, to date, include: Sabinet databases; ISAP (National library of South Africa); and SAE Publications; EBSCOhost: MasterFile Premier, Business source Premier, Academic Source Premier; FS Articles First; Kovsidex; SA Cat and FS Worldcat; ScienceDirect; Google searches; Dialog; and Dissertation Abstracts database. Data was accessed from other international and national libraries by means of the inter-library loan facilities at the Nelson Mandela Metropolitan University.

### **1.7.2 Primary research**

For the purpose of this study, secondary research is used to build a comprehensive theoretical framework identifying the use of social media by adopting a positivistic research paradigm and basing the empirical study on the study's theoretical framework.

#### ***a) Research design***

A research design provides a framework for the collection and analysis of data. A choice of research design reflects decisions about the priority being given to a range of dimensions of the research process (Bryman & Bell, 2007).

In an attempt to address the objectives of this study, and to conduct an empirical study, a quantitative research design will be followed. Research methodology can also be called a *paradigm*, which is defined as the general approach of how research should be conducted (Collis & Hussey, 2003). There are two main research paradigms (Collis & Hussey, 2003). The first paradigm is the positivistic paradigm which is alternatively known as the quantitative, objectivist, scientific, experimentalist or traditionalist research



paradigm and secondly, the phenomenological paradigm, which is also known as the qualitative, subjectivist, humanistic or interpretive research paradigm.

The quantitative approach concentrates on measuring circumstances and involves collecting and analysing numerical data, as well as applying statistical tests. If a research study yields quantifiable data, it is referred to as a quantitative study.

Qualitative research is an umbrella term used in the social sciences and includes case studies, ethnography, educational critiques, feminine theory, interviews, participatory research or evaluation. The qualitative approach is more subjective, humanistic and interpretive in nature and does not produce discrete numerical data. The data is thus in the form of words (Struwig & Stead, 2001). Therefore, a positivistic methodology will be used in this study as conclusive results are sought.

### ***b) Research methods***

A research method is a technique for collecting data. It can involve a specific instrument, such as a self-completion questionnaire or a structured interview schedule, or participant observation whereby the researcher listens to and watches others (Bryman & Bell, 2007).

Various methods can be used when conducting positivistic or phenomenological research. The method that will be used in this study to collect primary data will be a self-completion online survey questionnaire. Bryman and Bell (2007) list the advantages and disadvantages of online surveys. The advantages include:

- Low cost
- Faster response
- Attractive formats
- Mixed administration
- Unrestricted compass

- Fewer unanswered questions
- Better response to open questions

The disadvantages of using online surveys include:

- Low response rate
- online population restriction
- Motivation required
- Confidentiality and anonymity issues
- Multiple replies

### ***c) Data collection***

Researchers can collect primary and secondary data. Primary research is original data compiled and studied for a specific purpose. Secondary data is data collected previously by someone else and includes censuses, surveys, organisational records and data collected through qualitative methodologies or qualitative research.

#### **i) Sample**

Non-probability sampling method will be used for this study. This method seems the most appropriate as students will be invited to participate in the research by completing an online survey questionnaire. An e-mail with a link to the survey questionnaire will be sent to all NMMU Faculty of Business and Economic Sciences students who are registered in 2011. Students will be required to voluntarily complete the online questionnaire by following a link to the questionnaire. To ensure that enough students participate in the survey, some incentive will be provided to students to complete the questionnaire such as winning a cash prize.

## ii) Questionnaire design

A questionnaire will be designed based on the literature study that indicates the various types of social networks in which students can engage. It is envisaged that student satisfaction for their use of social networks will also be determined.

## iii) Data collection procedure

The electronic platform provided by the NMMU will be used to collect and perform the online data. This platform allows that respondent students will complete questionnaires and when they submit it, the software automatically put the answers into an excel data base for further use and analysis.

## ***d) Data analysis***

Once primary data have been collected, it will be analysed using appropriate statistical methods. Both descriptive and inferential statistics will be used to analyse the data and to investigate the use of social media among students. The selection of specific statistics will be determined once the questionnaire has been constructed.

## **1.8 SCOPE OF THE STUDY**

This study is limited to students in the Faculty of Business and Economic Sciences at the NMMU and investigates their use of social media. It is argued that business students will soon enter the world of business where the use of social media will be important.

## **1.9 OUTLINE THE CHAPTERS**

The study will be divided into the following chapters:

- **Chapter 1** presents an introduction to the study, identifies the problem statement, and describes the primary and secondary objectives of the study
- **Chapter 2** provides a literature overview of social networks in general and the various uses of social networks
- **Chapter 3** discusses previous research in the field of social networks and students
- **Chapter 4** consists of a detailed discussion of the research design and methodology
- **Chapter 5** presents the findings of the study, and the analysis and interpretation thereof
- **Chapter 6** provides a summary and conclusion of the investigation into the social network use of students. Recommendations, based on both the literature and empirical findings conclude this chapter

## **CHAPTER TWO**

### **LITERATURE OVERVIEW OF STUDENT USE OF SOCIAL NETWORKS**

#### **2.1 INTRODUCTION**

The primary objective of this study is to investigate the social media practices of NMMU students to establish the purposes for students engaging in social media use.

Despite the popularity of online social networks and social media, there are few available studies conducted that explain how and which social media is used by higher education and how and which social media is used by businesses. In an attempt to close this literature gap, this study intends to identify student use of social media for educational and business purposes.

This chapter provides a literature overview on the definitions and concepts of social media used in this study, the history of social media and social networking platforms, the significance of social media and social networking, social media and library services, educational use of social media, and business use of social media.

#### **2.2 DEFINITIONS AND CONCEPTS OF SOCIAL MEDIA USED IN THIS STUDY**

The following are definitions for social media concepts used in the study.

##### **2.2.1 Social media**

Social media are primarily Internet- and mobile-based tools for sharing and discussing information by users. The term most often refers to activities that integrate technology, telecommunications and social interaction, as well as the construction of words, pictures, videos and audio (Social Media Online, 2011).

Social media refers to a set of online tools that support social interaction between users. According to Hansen, Shneiderman and Smith (2011), social media is about transforming monologue (one-to-many) into dialog (many-to-many). For the purpose of this study, social media includes all the online tools that support social interaction by users.

### **2.2.2 Social networking and social networking sites**

Web-based services that allow users to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system (Boyd & Ellison, 2007).

A social network is a social structure made up of users (or organisations) that are connected by specific types of interdependency, such as friendship and common interest, financial exchange, relationships of beliefs or knowledge.

### **2.2.3 Hardware and software**

Hardware is something that can be touched and refers to the physical components of a computer, including the hard drive, monitor, memory chip or CPU.

Software refers to something intangible, often of great value, which cannot be picked up or weighed. However, software is needed to make hardware operative. Likewise, software needs hardware to be of value (Alexandrou, 2011).

### **2.2.4 Web 2.0**

Rather than static pages that simply reveal information (Web 1.0), Web 2.0 allows users to interact with the information (Krynin, 1997), and includes technology such as blogs, podcasting, social networking sites, video-sharing sites, hosted services, web

applications and wikis. Web 2.0 can be “loosely defined as the evolution to a social and interactive Web that gives everyone a chance to participate” (Kroski, 2007).

The major difference between Web 2.0 and Web 1.0 is who creates the content; and in Web 2.0, it is created by the user (Shu & Chuang, 2009).

### **2.2.5 Business 2.0**

Business 2.0 involves using the new web-based social networking applications in a way that fosters innovative teamwork, customer co-creation of value, collaboration with external partners, and interactive communication between leaders and employees in an efficient way (Burrus, 2010).

### **2.2.6 Facebook**

Facebook is a free social networking website that allows registered users to create profiles, upload photos and video, send messages and keep in touch with friends, family and colleagues. According to Facebook Online (2008), the site is available in 37 languages and includes public features such as:

- Marketplace - allows members to post, read and respond to classified advertisements
- Groups - allows members who have common interests to find each other and interact
- Events - allows members to publicise an event, invite guests and track who plans to attend
- Pages - allows members to create and promote a public page built around a specific topic
- Presence technology - allows members to see which contacts are online and chat

### **2.2.7 Twitter**

Twitter is a social networking and microblogging service for friends, family and co-workers to communicate and stay connected through the exchange of quick, frequent answers to a simple question “What are you doing?” by sending short text messages 140 characters in length, called tweets (Twitter Online, 2011).

### **2.2.8 Mobile web client**

Mobile web client refers to the use of Internet-connected applications, or browser-based access to the Internet from a mobile device (Mobile Web Online, 2011).

### **2.2.9 Web pages**

A web page is a document or information resource that is suitable for the World Wide Web and can be accessed through a web browser and displayed on a monitor or mobile device. This information is usually in HTML or XHTML format, and may provide navigation to other web pages via hypertext links (Web Page Online, 2011).

### **2.2.10 Applications**

An application is defined as a computer system (including multiple programs) that is designed to accomplish operational tasks or functions that help users to perform their work (Application software Online, 2010).

## **2.3 HISTORY OF SOCIAL MEDIA AND SOCIAL NETWORKING PLATFORMS**

Online social networks date back to 1978 when computer scientist Murray Turoff and S. Roxanne Hiltz established the Electronic Information Exchange System at the New Jersey Institute of Technology for the USA Office of Civilian Defense. The network allowed users to email each other, see a bulletin board and utilise a list server (Hiltz & Turoff, 1978; Hiltz & Turoff, 1993; Wasserman & Faust, 1994).



The emergence of the Internet and wireless communication technologies might have created a digital divide in society but, on the other hand, it allows people to connect with each other more than ever before (Norris, 2001). Advanced forms of Internet communication channels have become popular such as online portals, mailing groups, wikis, blogs, and instant messengers (Acar, 2008).

Online social networks encourage users to establish a network of connections with others. These social networks enable users to set up contacts with other users they would like to get to know for either professional or personal reasons and whom they would unlikely not meet in reality (Acar, 2008). Social networking websites started emerging in 2002 with the idea to develop ties between users as *friends*. Rather than building relationships, for example, on-online dating sites, these sites sought to develop networks or “social circles” of individuals of mutual interest. Early examples of such sites are Friendster, Tribe, Flickr, Facebook and LinkedIn (Downes, 2005).

### **2.3.1 Facebook**

Facebook is a social networking site that was founded in the USA in 2004 by a Harvard University student, Mark Zuckerberg (Quan-Haase & Young, 2010). The site initially targeted students at Harvard University but later expanded to include other universities, colleges and high schools. To register, users initially required a university email address, however, Facebook later expanded to workplace networks, and in September 2006, it granted access rights to anyone. In April 2010, Facebook recorded over 400 million active users (Facebook, 2010). Some of the key interactions a user can have with Facebook are creating profiles, making friends and publicising activity. Table 2.1 provides the basic building blocks of a Facebook profile.

**TABLE 2.1: BASIC BUILDING BLOCKS OF A FACEBOOK PROFILE**

Block	Information it can contain
Information	Basic – Age, gender, religious and political views Contact – Telephone, address Relationships – Status and for what a user is looking. Users can link profiles with partners here Personal – Details of hobbies and interests Education – Where users have studied Work – Current and past places of employment Picture – A place to store pictures to be used as profile images
Status	A place to write what a user is currently doing/thinking
Friends	A listing of six of a user's friends and their profile pictures and a link to a page displaying all of your friends. The listing of six friends is randomised by a Facebook application
Friends in other networks	A list providing an analysis of the networks you have friends in
Photos	A list of user-created photo albums generated via an application that allows a user to upload photographs to their profile. Photographs in which a user has been "tagged" that are part of another users profile are also listed here. Typically, a user adds a name (a tag) of those individuals who appear in the photographs. The tags attached to each photograph can be searched via a dedicated search dialog box. Individuals do not have to give permission for their name to be used in the tagging process and if they want their name removed, they have to either remove it manually or request that their friend removes the photograph. Users cannot prevent other users from tagging them in photographs. Non-users of Facebook can be tagged in photographs, but they cannot be searched for using the search feature.
Video	A facility to post videos to a profile
Notes	A place to write notes and import them from other spaces on the web, such as blogs
Groups	A list of Facebook groups to which a user belongs
The Wall	A bulletin board where friends can leave messages, notes, good wishes and other comments

Source: Light and McGrath (2010)

From Table 2.1, it is evident that Facebook includes a variety of applications that contain information which can be shared among users.

### **2.3.2 Twitter**

Twitter originated in San Francisco in 2006 as a side project inside of podcasting startup Odeo. According to Hansen, et al (2011), Twitter first created great excitement in the *tech-savvy* community when it was publically demonstrated at the South-by-Southwest (SXSW) film and music festival in Austin, Texas, in 2007. It won the Web Award and acquired a number of new users, who used it as a *back channel* during the festival to share information about hot new products and gatherings.

The key to Twitter's success lies in the way it has been constructed (Hansen, et al, 2011:143) as Twitter allows access to a stream of messages from a list of people, businesses, and celebrities that users find interesting. Users can then in an empty box, write very short messages to those they find interesting. Through customisation and extension by a large base of users and third-party developers, Twitter has become one of the most popular, talked-about, and versatile social media platforms in recent years. It has quickly acquired millions of users and has been employed by political candidates to reach out to supporters during campaigns and while in the office. It is also used by actors, musicians, and comedians to give their fans a peek into their personal lives and build their fan base; and by businesses, to share product information with and provide more personalised customer service for consumers (Hansen, et al, 2011:143). Twitter has also played a role in coordinating information sharing among victims of natural disasters like hurricanes and wildfires, and it has been suggested that Twitter helped raise global consciousness about terrorist attacks in India in 2008 and political turmoil in Iran in 2009.

### **2.3.3 MySpace**

Since its development, MySpace has been a popular social networking site in the USA (Dwyer, 2007). MySpace reached 100 million accounts in the USA on 6 August 2007

and attracted 230 000 users daily. MySpace had a head start getting into the global market, launching its first international site in Britain in April 2006, before expanding into other European countries and more recently in other countries including India, Russia, and South Korea. There are 29 translated versions of MySpace specialised for 25 countries.

Users can display their social networks and can engage in almost any type of online activity including webcasting, blogging, instant messaging, chatting and gaming (Acar, 2008). Throughout 2007 and 2008, MySpace redesigned many of the features of its site in both layout and in function. One of the first functions to be redesigned was the user home page, with features such as status updates, applications, and subscriptions being added to compete with Facebook. MySpace Music was redesigned in 2008 and 2009, making it more like an online music store along with the ability to create playlists. MySpace Movies was also added to promote movies and movie related media.

#### **2.3.4 YouTube**

YouTube was created in 2005 as a platform for personal communication, a place to create an online community or egocentric social network, and a platform that can be used for distributing commercial content (Hansen, et al, 2011:226). YouTube was also one of the first online services that allowed users to upload videos and share them with the world. YouTube has become the most popular video-sharing service amongst other similar services such as Yahoo! Video, Google Video, Vimeo, and DropShots. According to Hansen, et al(2011), YouTube was bought by Google in 2006 and is now operating as a subsidiary of Google Inc.

As video sharing existed before the advent of YouTube, the foremost reason for YouTube's success is the relative ease of uploading and sharing videos. Previously, videos were sent as email attachments or were available through other video hosting services, yet these services were slow, cumbersome, and limited in the amount of storage they offered. Videos had to be downloaded to viewers' computers before they

could be watched and viewed using proprietary video players. In addition, metadata descriptions about the video were rarely available. This was all changed by YouTube, as well as moving the viewing experience from a solitary experience to a social one.

A significant part of YouTube's popularity can be attributed to the simplicity of sharing videos and discussions about them (Hansen, et al, 2011:226). YouTube supports and encourages the embedding of videos in other forms of online communication, from email to microblogging to status updates in social networks, by displaying the relevant link next to each video. All users have to do is cut and paste the video code into a range of other social media such as blogs, wikis, emails, and status updates.

### **2.3.5 LinkedIn**

LinkedIn targets business professionals and is built mostly to be an online profile repository and a reputation management system. LinkedIn is a great tool for recruiting into businesses as users write about themselves in their profiles. If organisations are members of this platform, LinkedIn can form good impressions for these organisations through good things written in users's profiles which ultimately lead to greater interaction with these organisations. It is also a way of sharing knowledge and giving an impression of abilities. LinkedIn is also a good tool for branding as questions can be answered that will create good fortune for organisations (Brogan, 2010).

LinkedIn encourages professional networking. As a business-oriented social networking site, LinkedIn focuses on encouraging professional relationships. Keenan and Shiri (2009) identify the relationships operating in three major facets, namely:

- Reconnecting with colleagues and associates
- Exploring the hidden job market through your connections
- Making contact with industry experts to learn about a specific topic

Table 2.2 outlines the various social networking platforms available.

**TABLE 2.2: SOCIAL NETWORKING PLATFORMS**

Social Network Platform	Main Function
Facebook	Creating a profile that enables users to upload general information about themselves, including, photos, videos, notes, as well as find friends and groups using a variety of available applications by creating social profiles
Twitter	Allowing users to follow interests by receiving instant updates from friends, industry experts, favourite celebrities, and happenings around the world by creating social conversations
MySpace	Engaging in many forms of online activity including webcasting, blogging, instant messaging, chatting, music and gaming
YouTube	Uploading and sharing of video content and allowing for feedback or discussions regarding them. Used for video hosting.
LinkedIn	Creating professional profiles so that business professionals can market themselves in the business environment, and foster professional relationships by creating business profiles and maintaining business connections

Source: Researcher's own construct

From Table 2.2, various social networking platforms are illustrated with each having their own functions. This study focuses only on the platforms in Table 2.2 although there may be other platforms available to people.

## 2.4 IMPORTANCE OF SOCIAL MEDIA AND SOCIAL NETWORKING

Online social networks allow users to connect with people who share common interests whilst at the same time giving them power to be independent communicators. The most popular online social networking services such as MySpace.com and Facebook.com let their users not only display their social network in their profile but also control most of the content of their personal pages where the user can post individual messages, share photo albums, track friends, and organise events (comScore Media Matrix, 2006).

With the help of online social networking services anyone can have their own website and be linked to others.

Online social networking is much like offline social networking as the offline skills users know are still helpful (Shuen, 2008). However, connecting by websites makes it more like a network of people who are all in the same room, ready to introduce themselves without small talk. Although online social networking does not replace face-to-face conversation, it is a supplement that changes the rules (Shuen, 2008).

The online world is a small world as users can reach people they want to know with just a few clicks. In addition, people are increasingly receiving their first impressions from online rather than offline encounters. Shuen (2008) identifies two characteristics that change the traditional word-of-mouth exchange in the online world:

- availability of personal content uploaded online
- speed of connecting online to someone users do not know but to whom they want to be linked or get a message to

Facebook also provides a space where the role conflict that students experience in their relationship with university work, teaching staff, academic conventions and expectations can be worked through in a relatively close “backstage” area (Selwyn, 2009).

Social networking sites have become one of the most prominent categories of social software made popular by MySpace and Facebook applications which estimates millions of users. Social networking sites are personal and personalisable spaces for online conversations and sharing of *content-profiles* where users represent themselves to other users through the display of personal information, interests, photographs and social networks. Users maintain their own profiles and can access the profiles of others on the network to make connections with preferred friends. Because of the many features, social networking sites function in different ways, depending on user preferences. Social networking sites are spaces used to *hang out*, and where users can learn about each other or simply use the site as a directory (Stutzman, 2006). The orientation of social networking sites towards self-presentation, the viewing of others

personal information as well as being a source of multiple means of communication and exchange has proved attractive to students in university settings (Stutzman, 2006).

Although social media are visible in the form of consumer applications such as Facebook and Twitter, a major use of social media tools takes place within corporations, institutions and organisations. Inside these enterprises, employees share documents, post messages and engage in extensive patterns of connections with other employees and other resources (Hansen, et al, 2011:4). As a result, networked communication has become an indispensable link to customers and partners. Social media tools allow internal discussions that improve quality, lower costs and enable the creation of customer and partner communities that offer new opportunities for coordination, marketing, advertising and customer support.

According to Howard (2010), a distinction is made between social networks and online communities. Table 2.3 illustrates a comparison between these two types of social structures.

**TABLE 2.3: COMPARISON OF SOCIAL NETWORKS AND ONLINE COMMUNITIES**

A social network:	An online community:
<ul style="list-style-type: none"> <li>• has an organisational structure focused around and individual user's one-to-one relationships</li> <li>• has weak secondary connections between members</li> <li>• allows its users to be members of many communities in the network at the same time</li> <li>• is good for sharing activities</li> <li>• is less effective at activities requiring cooperation and collective action</li> <li>• makes it easier for users to build communities</li> </ul>	<ul style="list-style-type: none"> <li>• has an organisational structure focused around a shared purpose rather than one-to-one relationships</li> <li>• has strong, predictable secondary relationships among members</li> <li>• is distinct from other communities because of differences in purpose, policies, and computing environment</li> <li>• is good for activities requiring sharing and cooperating</li> <li>• is effective at providing the framework for activities requiring collective action</li> <li>• should not be confused with "adhocracies", "discussion groups", "forums", or "lists"</li> </ul>

Source: Howard (2010:11)



From Table 2.3, it can be deduced that there are distinct differences between social networks and online communities. These differences lie in the relationships that can be created and maintained through these types of social structures so that users can choose and build on them.

## 2.5 MEMBERS OF SOCIAL NETWORKS

A ranking system for members of social networks called the “social technographics ladder” can best describe users’ involvement in social networks (Li and Bernoff, 2008). According to Li and Bernoff’s (2008) classification system, types of members can be categorised by the degree of participation that different groups can have in a social network. The more involved members are in social networks, the higher up the *ladder rung* of the social technographics ladder they are. Li and Bernoff (2008) identify six rungs on the ladder, namely:

- Creators
- Critics
- Collectors
- Joiners
- Spectators
- Inactives

Table 2.4 outlines the unique characteristics and influence needs of the member types on the technographics ladder.

**TABLE 2.4: SOCIAL TECHNOGRAPHICS LADDER MEMBER TYPES: CHARACTERISTICS AND INFLUENCE NEEDS**

Member type	Characteristics	Influence needs
Creators	<ul style="list-style-type: none"> <li>• Create the primary, initial content for a community or network</li> <li>• Want to shape and persuade the minds of other members</li> </ul>	<ul style="list-style-type: none"> <li>• Need to know they are being read and have some impact</li> </ul>
Critics	<ul style="list-style-type: none"> <li>• Critics will comment on the entry creators post</li> <li>• Consensus builders</li> </ul>	<ul style="list-style-type: none"> <li>• Need feedback that helps them determine how values in the network or community are lining up</li> </ul>

Member type	Characteristics	Influence needs
Collectors	<ul style="list-style-type: none"> <li>Add value to social networks and communities because they sort the content created by creators and critics into ordered and ranked categories</li> </ul>	<ul style="list-style-type: none"> <li>Need to have questions sent to them asking if they have information in their archive that will help the community</li> <li>Need to hear that their social bookmarks, archives, or collecting behaviours are valued by the community</li> </ul>
Joiners	<ul style="list-style-type: none"> <li>Have influence simply by virtue of the profiles that they choose to fill out and complete</li> </ul>	<ul style="list-style-type: none"> <li>Need to see that other users have viewed their profile information</li> <li>Need to see that their mere presence had influence</li> </ul>
Spectators	<ul style="list-style-type: none"> <li>Benefits from and “consumes what the rest produce” implies appreciation for the content generated by the creators and critics</li> </ul>	<ul style="list-style-type: none"> <li>Need to see that creators and critics appreciate the time that they invest reading their blogs or postings or watching their videos</li> </ul>
Inactives	<ul style="list-style-type: none"> <li>Expend no energy on behalf of the social network and do not participate</li> </ul>	<ul style="list-style-type: none"> <li>Have all the influence needs of the previous five membership types, but these needs are not being met</li> </ul>

Source: Howard (2010:90)

From Table 2.4, the different member types unique influence needs can be identified. These should be taken into consideration when designing or administering social networks so that members' influence needs can be met to avoid members from becoming Inactives.

## 2.6 SOCIAL MEDIA AND LIBRARY SERVICES AT HIGHER EDUCATION INSTITUTIONS

For academic libraries to remain important and useful to students, it is necessary for them to determine how students access and use information (Walker, 2006). In addition, to improve the student and the faculty teaching and research collaboration experience, librarians also have an opportunity to step up to the challenge of *visibility* within social media environments (Mitchell & Watstein, 2007).

Some studies consider librarians' potential use of Facebook to promote library services and events, and one specific study focuses on students' cultural and social interests, and how they interact online. This research may help older generations of academic librarians to better connect with students. Although there are several library-related Facebook groups in South Africa, membership is still relatively low (Bosch, 2009).

Koerwer (2007) and Miller and Jensen (2007) offer a few practical tips to help librarian groups move beyond just a few students requesting books or asking reference questions. These include *friending* student library assistants; showing profiles at library instructional sessions; using the news feed to update the library's status or blog, photograph new books; and creating events for book groups or exhibit openings.

## **2.7 EDUCATIONAL USE OF SOCIAL MEDIA**

The prominence of social networking sites in the lives of learners has captured the interests of educators. It is believed that social networking applications share many of the qualities of good education technologies, for example, permitting peer feedback and matching the social contexts of learning (Mason, 2006). The conversational, collaborative and communal qualities of social networking services are felt to mirror much of what is known to be good models of learning, in that they are collaborative and encourage active participatory role for users (Maloney, 2007).

Social networking sites may also benefit students by allowing them to enter new networks of collaborative learning, often based around interests not catered for in their immediate educational environment. Maloney (2007) has identified that social networking sites such as MySpace and Facebook have shown that students invest time and energy in building relationships around shared interests and knowledge communities. This has convinced some educationalists to include social networking to the conventional interaction and dialogue between students and educators. Some have also welcomed the capacity of social networking services to offer educators a forum for "easy networking and positive networking with students" (Lemeul, 2006).

Through innovation in desktop computing and the *power* of the Internet through the World Wide Web (WWW), there has been a profound change in higher education. Web applications were initially designed to search for static pages of information but today's web application allow for open, collaborative production of information (Beldarrain, 2006). Lenhart, Horrigan and Fallows (2004) identify that 44% of the nearly 53 million Internet users produce and share digital content online. . Moreover, data from the Pew Internet and American Life Project (2009) show that nearly all college educated adults use the Internet, 94% of Americans with a college degree use the Internet and 87% with some college education use the Internet. In the USA, university students fall into the 18-29 year old demographic where Internet usage is 93%. Business educators are also using blogs and wikis within the classroom as a simple webpage, collaborative analysis, sharing class notes, project management and distributing course material (Churchill, 2009).

## **2.8 BUSINESS USE OF SOCIAL MEDIA**

Businesses are able to reach larger audiences and reduce the time-lag to market by using the Internet. Previously, the goal of online marketing campaigns was to get the customers attention and browse through the company's website, but the aim has changed to become one of creating sustained engagement with the customer (Harris & Rae, 2009). Websites such as YouTube and Facebook demonstrate how the Internet is changing as users are no longer just downloading static data but are also uploading and sharing content among themselves, leading to the creation of social networks and other user-generated content sites.

Strategic Direction (2009) outlines how business leaders can use social networking tools to:

- Enable speedier location, access and sharing of information
- Enable more efficient control of contacts and knowledge
- Help retain key employees by improving satisfaction in the workplace

- Break down time and geographical boundaries to improve communication between widely dispersed personnel
- Reduce expenses, and improve productivity and competitiveness

There are many potential benefits that a business can obtain by investing in sustainable social networks. According to Howard (2010), businesses should invest in social media as they:

- Enhance and sustain intellectual capital
- Increase creativity and cross-fertilisation
- Improve decision-making processes with epistemic communities
- Preserve institutional knowledge
- Provide a higher quality interaction with organisations
- Improve retention and loyalty
- Reduce training and support costs
- Identify customer needs and new product opportunities
- Reduce travelling costs and address problems *just in time*
- Flatten organisational hierarchies

According to Reid and Gray (2007), there are an increasing number of entrepreneurs creating software designed to enrich businesses and personal relationships and when this software is properly applied to online social networks, it will enable organisations to:

- Increase customer satisfaction via a better *us versus them* Customer Relationship Management (CRM) focus that includes an authentic human interface
- Allow customers to connect with experts with deep knowledge in areas of interest
- Empower their employees to find experts within their own organisation
- Ease post-acquisition integration by eliminating inevitable *us versus them* feelings
- Provide the *whole product* to fully meet a customer's needs

- Understand and visualise real communication paths within an organisation
- Extend the shelf life of conferences with an online network of attendees
- Share knowledge with user-desired *demand pull* technologies such as Really Simple Syndication (RSS)
- Pull together the *all-star team* ideal for this customer
- Differentiate the service with the brand of *you*

Table 2.5 summarises the various uses for social media.

**TABLE 2.5: SUMMARY OF THE VARIOUS USES OF SOCIAL MEDIA**

Area	Explanation
Social media and library services	<ul style="list-style-type: none"> <li>• Making libraries and library services more visible within social media and social networking platforms to assist in teaching and research collaboration with students</li> </ul>
Educational use of social media	<ul style="list-style-type: none"> <li>• Creating dialogue and collaboration, information production and information sharing with students as Internet usage among students is at an increasingly high percentage</li> </ul>
Business use of social media	<ul style="list-style-type: none"> <li>• Reaching larger numbers of audiences to not only market the business but also to become visible and encourage engagement with customers within the various social media and social networking platforms</li> <li>• Using social media to enhance and improve processes within businesses</li> </ul>
Personal use of social media	<ul style="list-style-type: none"> <li>• Staying in touch and connecting with friends, relatives, colleagues, and others.</li> <li>• Creating individual profiles containing various information about themselves.</li> <li>• Uploading pictures to profiles, posting blog entries for others to read, searching for other users with similar interests, and compiling and sharing lists of contacts</li> <li>• Sharing of content</li> </ul>

Source: Researcher's own construct

From Table 2.5, it is evident that social media has a number of uses for individuals and various organisations. Social media tools make it easier for the above mentioned stakeholders to conduct their activities and to improve or enhance those activities.

## 2.9 SUMMARY

From the literature of this study, various uses of social media and social networking platforms are identified, with each area of use having their own distinct characteristics and needs that social media influences.

Although many social media and social networking sites are available to students, individuals and organisations for various purposes, this literature study reveals that 93% of students are of the *net generation* (Pew Internet and American Life Project, 2009) . This study has identified five types of social networking platforms, namely, Facebook, Twitter, MySpace, YouTube, and LinkedIn, with each having distinct functions. These platforms along with their specific functions create numerous opportunities for improved educational experiences for students which include enhanced library services. This is due to the large amounts of information that is posted or uploaded on these social networking platforms. The information can be uploaded in different formats from audio, visual-audio (videos), as well as text and allows for commenting, discussion or feedback related to the topic.

Different member types characteristics identified allow designers and administrators of social networking sites to cater for the needs of the different users. Businesses also use social media to engage with potential customers, customers and clients to create a perception of value for the stakeholders of the business. Social media is also used as an educational tool in businesses to assist new recruits, who in most cases are students who have just completed their higher education, to be inducted into the businesses. It also assists postgraduate students with employability, career management and making business connections.

Chapter 3 investigates social media further to identify whether similar studies on social media and social networking have been conducted in South Africa with the focus being on social media use among students. A literature overview of previous research on social networks is also provided.



## **CHAPTER THREE**

### **PREVIOUS RESEARCH ON SOCIAL MEDIA**

#### **3.1 INTRODUCTION**

In Chapter 2, a literature overview was provided on social media and social networking platforms selected for this study. From the findings in chapter 2, it is evident that there are many social media tools available for use by higher education and businesses. These social networks and social media are used in different ways for specific reasons and purposes, and chapter 2 also identified how and what social networks and social media are used.

In this chapter, an identification of previous research done on the use of social networks and social media is provided. This is done according to the different uses, namely, social media and library services, educational use and business use of social media as well as general research of social media.

#### **3.2 RESEARCH OF SOCIAL MEDIA IN GENERAL**

The purpose of Rhoades, Irani, Telg and Myers (2008) study was to explore computer usage and attitudes of current students enrolled in college of agriculture courses. A descriptive survey was used to achieve the objectives of this study. Participants were enrolled in one of two service courses taught in the College of Agricultural and Life Sciences at the University of Florida. The courses served as part of a general education requirement for students across the university and were thus taken to be a largely representative student population with a variety of agriculture and non-agriculture majors and backgrounds. A total of 256 students completed the instruments through direct administration in the classroom. The results indicated that the majority of students enrolled in these agriculture courses owned a computer. While at home, the majority of students were connecting to the Internet using high-speed and wireless access, and at school, almost half of the respondents indicated using a computer lab to go online.

This is important as many instructors are beginning to use multimedia technologies that require fast connectivity speeds to support in-class activities at home. Many respondents also indicated using social networking sites like Facebook.

Keenan and Shiri (2009) explored sociability on the social web and detailed how different social websites encourage their users to interact. The study focused on four major social networking websites (Facebook, MySpace, Twitter and LinkedIn) and explored the features that encourage sociability. After participating on the websites, a series of observations were recorded from each experience, which was then compared to understand the different approaches of each website. The study identified two major groups of sites that existed within the social web. The first one, people-focused social web sites emphasised social interaction through user-driven personal content. This content was centered on the profile or user's home page. Each member within the community had a profile page that contained personal information.

The other activity-focused social web sites emphasised social interaction through site-specific content. The site-specific content was usually a thematic focus for a website with users providing their own contributions to that specific theme. The findings of this study were that sociability was performed in a number of different ways. The larger social websites (Facebook and MySpace) encouraged sociability by offering a meta-social environment. These websites offered users a variety of options for interaction including media sharing, blogging, public discussions, events and a host of other features. Facebook and MySpace had a large user base to facilitate this multitude of features, and also allowed users to develop their own applications within the meta-social environment.

Smaller social websites (LinkedIn and Twitter) encouraged sociability by offering specific types of sociability. LinkedIn followed a more traditional model of social websites by focusing on a specific community, for example, professionals looking to network with fellow professionals. Therefore, LinkedIn targeted a specific demographic and user base. Twitter has adopted a unique approach by focusing on a specific

technology, namely, SMS. By restricting user interaction to quick status updates of 140 characters or less, Twitter has successfully integrated mobile updates along with their standard web updates. The study also found that sociability on social websites is largely determined by the design of the website.

Shin (2010) conducted a study to investigate users' motivations for engaging in social networking through online social networking services compared with their behaviour. The aim was to examine the differences between USA and Korean users by conducting a survey on social networking site users to determine the key differences between the two countries. The findings of this study should be of interest to both academics and practitioners and provides a model for identifying the background of user intention to use online social networking sites. The results from the two countries were compared and contrasted, and eight dimensions emerged, namely, perceived usefulness, perceived ease of use, perceived security, perceived enjoyment, perceived involvement, perceived connectedness, social pressure, and flow.

The findings showed that both extrinsic and intrinsic motivations exhibited equally strong effects on users' attitudes and intention to use social networking sites. Intrinsic motivation can be defined as making people do something without external pressure or motivation. Activities that are intrinsically-motivating are activities that people engage in for no other reason than personal satisfaction and enjoyment. Extrinsic motivation makes people do something because of external factors such as getting a reward or a high mark for good work. The study's findings showed that perceived usefulness, connectedness, enjoyment and involvement are significant determinants of both countries' users. The differences in the social networking sites motivations between the two countries might be attributed to there being some significant differences between the two sites and the users who are active on them.

Table 3.1 provides a summary of the research conducted.

**TABLE 3.1: SUMMARY OF THE MAIN FINDINGS FROM PREVIOUS STUDIES ON SOCIAL MEDIA IN GENERAL**

Author	Date	Main findings
Rhoades, et al	2008	Because many students were familiar with the Internet and social networking sites, instructors could utilise the communication tools in these programs to engage students in a manner comfortable and enjoyable to them. Instructors could utilise these resources to prompt out-of-class discussions and post announcements for students. These technologies offered students a real-world example to draw from during discussions on information credibility and online resources.
Keenan and Shiri	2009	Social websites used a number of different approaches to encourage sociability amongst their users. Facebook promoted privacy and representing “real world” networks in web environment, while MySpace promoted publicity and representing both real world and virtual networks in a web environment. Niche websites like LinkedIn and Twitter focused on more specific aspects of community and technology, respectively.
Shin	2010	The results illustrated the importance of both extrinsic and intrinsic motivation. The USA and Korea showed different sets of motivations. The results showed that Korean users’ primary motivation was enjoyment which was greatly influenced by perceived involvement, whereas the US users’ main motivation was dependent on how useful they perceived social networking sites to be, which was heavily influenced by users’ feelings of connectedness.

Source: Researcher’s own construct

### **3.3 PREVIOUS RESEARCH ON THE USE OF SOCIAL NETWORKS AND SOCIAL MEDIA**

There have been various studies investigating the use of social networks and social media. This section identifies social media and library services at higher education institutions, educational use of social media and business use of social media.

### **3.3.1 Social media and library services at higher education institutions**

The purpose of Topper's (2007) study was to understand the impact that social networking has had on public and academic libraries. The methodology used in this study was a literature review and commentary on the topic of social networking. A study from the literature revealed that although some scholars used public library computers for homework assignments, the majority of users used them to access social networking sites like MySpace. In higher education institutions, Facebook was the more significant social networking site used because of its original focus on the university market.

According to Park (2009), library and information services were also attempting to utilise social networking sites to increase library user traffic. Considering the lack of social networking sites studies in academic library services and various social networking sites usage patterns according to user type, it was necessary to compare the usage patterns across different user groups. The study aimed to explore the usages of social networking sites by different university users. Data was collected through the use of semi-structured and open-ended interviews conducted with undergraduates, graduates, and faculty members at Yonsei University in Seoul, South Korea. Data was analysed according to three groups, namely, active users, semi-active users, and non-active users. Within each group's social networking site user perception and use were examined.

The findings from Park's (2009) study indicated that the three groups of users displayed distinct patterns of social networking site use. This study revealed that undergraduates used the profile service more than the community service, graduates used the community service more than the profile service, and most faculty members were not active users. Park's (2009) study thus identified six factors that contributed to the different usage patterns, namely, desire for expression, peer influences, familiarity with information technologies, sensitivity to privacy, nature of using the Internet, and perception of the social networking sites. From the findings, it would be difficult to

introduce social networking site-based academic library services into universities as members have different approaches to social networking sites.

Dickson and Holley (2010) examined the use of the major social networking tools in academic libraries in the USA. As college students were frequent users of social networking, this provided academic libraries with outreach possibilities to students who did not use the physical library. Their study also examined the concerns about social network use both from students and within the academic library. The authors approached this study by summarising findings from articles, with the first author, Dickson, also examining librarian blogs and library accounts in various social networking sites. To analyse the use of social networking tools for outreach in academic libraries, a review of recent literature was conducted. From the literature it was found that social networking sites provided a platform for reaching students beyond the physical library building and web site by allowing students to access librarians and library resources by without having to leave the web sites they used the most. However, student outreach attempts using social networking were less likely to be effective if they were not based upon targeted, well thought out programs.

The purpose of Nesta and Mi's (2010) study aimed to present a critical review of Web 2.0 and Library 2.0 applications and proposed a redirection of resources towards semantic web developments. The authors focused on academic libraries and examined library web sites in New Jersey, USA, Hong Kong and China to determine the extent of acceptance of Web 2.0 applications, and, where possible, the success of any implementations as measured by user numbers, as well as any evidence of interaction with the sites by users. The study found that students valued the library as a place to study and meet, the alumni and faculty honoured it with gifts of money and books, community members participated in *Friends of the Library* and as reading groups. However, these were secondary to the mission of the academic library as a place of research. According to Nesta and Mi (2010), libraries had many roles, but they were not social networks. Although they might be important to faculty and students and were

highly-valued, they were no more part of user's social networks than were their academic department or scholarly association.

Although users might add or become fans of libraries and bookshops and other institutions on Facebook, they were not part of the circle of *friends* as, people, not institutions constituted a social network. This study concluded that libraries were research networks, not social networks and the proper relationship of academic libraries to their users was professional and collegial. In the future, libraries might need to return to leadership in the development of new tools for intellectual discovery and access as it was professional networking, not social networking, that best served the mission of libraries and their users. Therefore, libraries must drive technology, and not be driven by it.

Table 3.2 outlines a summary of the main findings of social media and library services at higher education institutions.

**TABLE 3.2: SUMMARY OF THE MAIN FINDINGS FROM RESEARCH RELATED TO SOCIAL MEDIA AND LIBRARY SERVICES AT HIGHER EDUCATION INSTITUTIONS**

Author	Date	Main findings
Topper	2007	Libraries would have to reach users in their preferred methods of communication.
Park	2009	Members (undergraduates, graduates and faculty members) used social networking sites for different reasons so to implement social networking site-based academic library services into universities a differentiated approach was required.
Dickson and Holley	2010	Social networking could be an effective method of student outreach in academic libraries if libraries respected student privacy and provided equal exposure for all subject areas.
Nesta and Mi	2010	Study found that acceptance by the public of Library 2.0 applications had been low and that social networking tools did not contribute to the core mission of libraries.

Source: Researcher's own construct

### **3.3.2 Educational use of social media**

The purpose of Mitchell and Watstein's (2007) study was to investigate virtual learning environments, namely, Facebook, and YouTube, places where students and scholars worked, collaborated, shared, planned, and encouraged reference and information literacy librarians to take up the challenge of becoming more visible in these environments. The methodology used was an editorial focusing on Facebook and YouTube. Students in higher education require a consistent, powerful, and transparent application of educational technology applications across disciplines and across campuses. To meet these needs, virtual learning environments go a step further supporting not only instruction but also research collaboration.

Virtual learning environments are software systems designed to facilitate teachers in the management of educational courses for their students. Originally and still most commonly associated with helping teachers and learners with course administration, these systems could often track the learners' progress, which can be monitored by both teachers and learners (Mitchell & Watstein, 2007). The findings of this study indicated that to improve students' learning as well as faculty teaching and research collaboration experience, it was vital to become more visible in these environments.

Bosch's (2009) study explored student use of Facebook at the University of Cape Town (UCT), as well as lecturer engagement with students via the new social media. The study showed that there were potential positive benefits to using Facebook in teaching and learning, particularly for the development of educational micro-communities. The study explored UCT students' use of Facebook qualitatively, to draw preliminary conclusions about possible educational applications. The methodology used was interviews which were conducted with undergraduate students and lecturers who engaged with their students via Facebook. It was found that undergraduate students were more frequent users of Facebook than graduate students. Bosch (2009) also identified a number of uses of Facebook, namely, using Facebook for social



connectivity, for general communication, for teaching and learning; and for lecturer engagement with students.

From the findings of this study, it was concluded that web-based learning had made learning content more freely and immediately available to students who could download course notes and readings with a single click of the mouse. Facebook has been listed as having potential applications for teaching and learning which would be excellent use of the social networking tool as the current generation of users might be resistant to more traditional methods of teaching and learning.

Selwyn's (2009) study investigated the realities of students' Facebook activity and considered the role that Facebook was playing in the wider student experience of twenty-first century university education. An in-depth qualitative analysis of the Facebook *wall* activity of 909 undergraduate students in a United Kingdom (UK) university was conducted. Analysis of this data showed how much of students' education-related use of this social networking application was based around either the post-hoc critiquing of learning experiences and events, the exchange of logistical or factual information about teaching and assessment requirements, instances of supplication and moral support with regards to assessment or learning, or the promotion of oneself as academically incompetent and/or disengaged. The education-related interactions from the students' Facebook walls were analysed and five main findings emerged from the data, namely, recounting and reflecting on the university experience; exchange of practical information; exchange of academic information; displays of supplication and/or disengagement; and banter (for example, exchanges of humour and nonsense).

A study conducted by Loving and Ochoa (2010) used a library research class at the University of Florida that experimented with the use of the social networking site Facebook as an online course management software solution for their research methodology class. Using Facebook groups to set up a class page, instructors made a case study on the flexibility, functionality and utility of using Facebook as an academic

communication channel with students. The methodology of this study was to observe wall postings of a group of 612 publicly-accessible student Facebook pages and to sort those relating to academic study. The research showed a breakdown of the academic-related Facebook communication into five categories, namely, reflecting on the university experience, exchanging of practical information, exchanging of academic information, displaying of supplication and/or disengagement, and exchanging of humour and nonsense (Selwyn, 2009).

Table 3.3 provides a summary of the main findings of research into the educational use of social media.

**TABLE 3.3: SUMMARY OF THE MAIN FINDINGS FROM RESEARCH RELATED TO THE EDUCATIONAL USE OF SOCIAL MEDIA**

Author	Date	Main findings
Mitchell and Watstein	2007	Developments in virtual learning environments had resulted in change in the design and delivery of education from kindergarten to corporate. Educational technology played a critical role in learning and teaching across the academic spectrum in many disciplines at most colleges and universities.
Bosch	2009	The technological and economic advantages to computer-based learning included answering the same questions, in bulk, for large numbers using a technology with which users were already familiar, and removed the divide between student and teacher. Facebook allowed academic-related networking across campuses.
Selwyn	2009	This study concluded that rather than necessarily enhancing or eroding students' <i>frontstage</i> engagement with their formal studies, Facebook use must be seen as being situated within the <i>identity politics</i> of being a student. In particular, Facebook appeared to provide a ready space where the role conflict that students often experienced in their relationships with university work, teaching staff, academic conventions and expectations could be worked through in a relatively closed <i>backstage</i> area.
Loving and Ochoa	2010	Facebook allowed instructors to distribute documents (via posting and messaging), administer discussion lists, conduct live chat and handle some assignment posting.

Source: Researcher's own construct

### 3.3.3 Business use of social media

van Zyl's (2008) study aims to educate IT, business decision makers, knowledge workers and librarians about the various applications, benefits and risks associated with social networking. This study increased the understanding of what social networking encompasses and how it could be utilised for business purposes. The methodology used in this study was a literature review whereby the benefits and perceived risks associated with electronic social networking on organisations were investigated. van Zyl's, (2008) literature review revealed that the reasons for the implementation of social networking showed that social networking platforms increased productivity, workflow efficiency, staff motivation and innovation by allowing:

- use of computer-mediated communication technologies more effectively and appropriately to collaborate with co-workers
- identification of experts, opportunities and potential collaborators outside the knowledge workers traditional organisational channel
- retention of cumulative organisational knowledge and experience in a searchable format

Some of the key reasons against the implementation of social networking were:

- perceived advantages of the existing hierarchical organisational structure where knowledge workers were grouped into channels and information were communicated in one direction as opposed to the open-platform approach advocated by emergent web-based platforms
- fear that social networking platforms would have a negative effect on productivity
- potential loss of confidential or sensitive data through negligent or malicious acts by employees or through social engineering or malware attacks

Bennett, Owers, Pitt and Tucker (2009) examined the impact social networking had in the workplace and also assessed its use as an effective business tool.

They examined positive and negative perceptions of social networking in the workplace. The link between social networking and organisational culture was also examined, looking at whether social networking tools were capable of uplifting and reshaping the culture and brand of an organisation, which in turn could lead to better ways of working and increased levels of employee productivity and satisfaction. Literature from this study indicated that social networking sites provided opportunities for both formal and informal interaction and collaboration with fellow employees and clients/customers which aided knowledge transfer and communication. The sites also had various informal applications and games that members of the same organisation could engage in across geographical boundaries and time zones so that team spirit and organisational culture could be maintained.

(Bennett, et al (2009) also identified the business benefits that social networking tools such as social networks, blogs, wikis, mashups and RSS feeds could have in the workplace. These included:

- revitalised organisations by harnessing collective intelligence
- facilitated networked conversations, information-sharing and problem-solving can
- ripped down rigid hierarchies, corporate silos and replaced walled-off R&D departments with transparent, open-ended *crowd sourcing* strategies that could bring customers into the collaborative dialogue
- shifted power from executive C-suites to employee cubicles, from companies to customers, and from monopolists to markets
- improved morale, enhanced collective knowledge, increased productivity, sharpened strategic focus, greater innovation and higher profits

Kane, Robinson-Combre and Berge (2009) explored the use of social networking and social media in the workplace. Their findings showed that knowledge management and e-learning brought value to an organisation and through the use of social networking, knowledge would no longer be confined to a certain group of users, but would allow an organisation to learn from its most valuable asset, namely, its employees. Kane, et al

(2009) based their findings on their experience and a review of literature is given in their study. According to Kane, et al (2009), the trend in telecommuting and virtual offices had separated employees and reduced opportunities for informal face-to-face knowledge sharing. Therefore, companies must then find ways for employees to share knowledge and link social networking tools to existing learning programs. Social networking tools could bring workers together to share and capture the knowledge transfers. The literature provided in this study advised companies to include the following tools and applications to collect and share knowledge as well as blogs that allowed an organisation to set up employee blogs by department, topic, project, or issue. Blog content could be extracted so the information could be shared with others and reused as e-learning content; wikis, that allowed the learner to be active in knowledge sharing, while allowing *just in time* ways to apply and share knowledge with multiple people working on a collective project or e-learning course activity. For example,

- Twitter: allowed an employee to follow a mentor, connect to experts, test new ideas, and maintain discussions after an e-learning course; social networking sites, that offers an organisation the ability to create profiles of employees to identify subject matter experts, experiences, and working relationships;
- Instant messaging (IM): is text based, easily captured and shared, for reuse in e-learning content.

The findings of this study suggested that there was a synergy between knowledge management and e-learning through the social networking tools identified in this study.

Kluemper and Rosen (2009) found that employers who were aware of the popularity of social networking sites had begun to use the personal information available on social networking sites to make hiring decisions. The purpose of their paper was to examine the feasibility of using applicant personal information available on social networking sites to improve employment selection decisions. Ratings were evaluated to determine if raters could reliably and accurately determine personality traits, intelligence, and

performance based on information available on social networking sites. Interrater reliability was assessed to determine rater consistency, followed by an assessment of rater accuracy. This study was conducted at a large public university in the southern USA. Students enrolled in an employment selection course participated in this project for course credit. As part of the employment selection course, the participants were trained in both personality/intelligence testing and effective utilisation of rating scales. They also participated in a one hour training session for this project which included reviewing the definitions of the big-five personality traits, general mental ability, and academic performance; viewing Facebook profiles to identify specific information which could be used to assess the focal characteristics of the study; and familiarising the participants with the rating form to be used when conducting the assessments). They also participated in a series of practice assessments prior to conducting the ratings for this study.

All the participants had involvement in social networking sites, and were asked to spend ten minutes evaluating each of six social networking profiles, considering multiple aspects of the profiles which could relate to a specific trait, then completing a rating form based on their overall impression of the social networking profile. Based on the viewing of the social networking profiles, the judges were consistent in their ratings across the subjects and were able to distinguish high from low performers accurately. Raters who were more intelligent and emotionally stable, outperformed their colleagues.

Benson, Filippaios and Morgan (2010) conducted a study on career development and entrepreneurship as part of a wider study of online social networking. The results of the study identified differences between undergraduate, postgraduate and international student populations. The study discussed differences across gender, educational level and nationality that had implications for social networking practices and demanded a need to raise the awareness of graduates in the use of social networks to enhance their career prospects. This research bridged the gap in literature by evaluating the use of social networks among students, focusing on their reasons to join, expectations from, and actual use of social networking for career development in a higher education

setting. The findings showed that undergraduate students had more registrations on social networking sites for social reasons while postgraduate students had more registrations on professional sites like LinkedIn which provided more career opportunities. Postgraduate students understood the significance of business networking and increasing their social capital by means of social networks, undergraduates, however, were far from realising the career benefits and business prospects enabled through networking with current students, alumni and employers. International students across all levels realised and were taking advantage of social connections, closely relating them to career development.

Table 3.4 outlines the main findings from research related to the business use of social media.

**TABLE 3.4: SUMMARY OF THE MAIN FINDINGS FROM RESEARCH RELATED TO THE BUSINESS USE OF SOCIAL MEDIA**

Author	Date	Main findings
van Zyl	2008	A person's success in society depended on the size of his/her social network and ability to network and form connections with other social groups. Organisations which could harness this essential human ability to manage knowledge would be able to lower transactions costs and become more profitable.
Bennett, et al	2009	It was essential that employers recognised and understood the potential of the latest innovations in social networking and made a concerted effort to incorporate them at a strategic level. Having e-mail and a company intranet was no longer sufficient for a modern day workplace.
Kane, et al	2009	Social networking tools offered organisations an opportunity to incorporate knowledge management with social networking giving them a new means of e-learning, allowing formal and informal information to flow in the organisation.
Kluemper and Rosen	2009	Social networking sites contained considerable amounts of personal information that could be used by human resource professionals prior to hiring applicants although further academic studies had to be done to determine whether social networking sites could be valid and reliable predictors of organisational criteria.
Benson, et al	2010	Social networking sites helped maintain connections and exploit resources accumulated through relationships, termed

Author	Date	Main findings
		as e-social capital. Universities might wish to take a more active role in developing undergraduate students' abilities to use social networks for career progression. Organisations employing graduates should not assume that new graduates were able to use online networking for business purposes in an effective way, and might need to include this as part of their staff development.

Source: Researcher's own construct

### 3.4 RESEARCH ON PERCEPTIONS OF SOCIAL MEDIA

There have been various studies on perceptions of social media which will be identified in this section.

#### 3.4.1 Research by Quan-Haase and Young (2010)

Quan-Haase and Young's (2010) study used data collected for each respondent to provide an overview of demographic characteristics, including background information on age, gender and course enrolment. Their questionnaire also used two measures of Facebook usage. The first measure was to examine the frequency of the respondents' Facebook visits on an 8-point scale ranging from 1 = never to 8 = several times a day. The second measure asked respondents how often they updated their Facebook profile on an 8-point scale ranging from 1 = never to 8 = several times a day. This yielded a measure of their commitment to the site and to conveying up-to-date information to others in their social network. In order to obtain a measure of respondent's' experience with the site, they were asked also how long they had been using Facebook (Quan-Haase & Young, 2010).

#### 3.4.2 Research by Benson, Filipaios and Morgan (2010)

Questions in Benson, et al's (2010) questionnaire covered a range of expectations and motivation for persistent use of various networks. The question for each network type was "Why did you join this network?" with answer options including "Find a job", "Make



business contacts”, “To find contacts at the university”, and “To be generally sociable”. A Likert scale was used with 1 = Strongly agree to 5 = Strongly disagree. Students were also asked to compare their current use of social networking sites with the one when they first joined, for social and business activities. Four different options were given, ranging from “Not at all”, which indicated that the respondent never used social networking sites for a social or business activity, “About the same”, which indicated an equal time commitment, and two further options, “More” and “Less”.

### **3.4.3 Research by Weyant and Gardner (2009)**

Weyant and Gardner (2009) included 25 questions concerning students’ usage of blogs, wikis, podcasts, RSS readers, and social networking. Twenty-four of the questions required a dichotomous YES/NO responses and one question asked the respondents to estimate their usage of social networking sites. Questions that were used to determine students’ knowledge of Web 2.0 applications included, “Do you know what a blog is?”, “Do you have a social networking site such as Facebook or MySpace?”, “Do you know what a podcast is?”, “Do you know what microblogging is? (Twitter)”, “Do you know what a wiki is?”, and “Do you know what a RSS is?”.

The questions that were used to determine classroom use of Web 2.0 applications included, “Have any of your classes to date used a podcast as part of the course?”, “Have any of your classes to date used a blog as part of the course?”, “Have any of your classes to date used a wiki as part of the course?”, “Have any of your classes to date used Facebook or MySpace as part of the course?”, “Have any of your classes to date used RSS feeds as part of the course?”, and “Have any of your classes to date used microblogging as part of the course?”.

### **3.4.4 Research by Graham, Faix and Hartman (2007)**

Graham, et al (2007) asked the following seven questions in their survey to investigate if academic libraries used Facebook and how it was used:

- a) Is your library currently using Facebook? (If No, please go to Question g).
- b) What features of Facebook are you utilising to connect with students?
- individual librarian profiles
  - groups
  - events
  - other
- c) For what purpose do you typically use Facebook?
- advertise/promote events
  - create cohort groups for library instruction
  - make announcements
  - create discussion threads
  - just for fun
  - do not really use (just a presence)
  - answer questions
  - solicit feedback from students
- d) What tactics are you using to promote Facebook?
- library instruction
  - flyers/handouts
  - word of mouth
  - signage
  - library's web page
  - other
- e) What audience are you trying to reach using Facebook?
- other librarians
  - campus colleagues
  - students

- personal use
- f) In your opinion, how successful do you feel having a presence on Facebook has been?
- do not know
  - unsuccessful
  - low success level
  - successful
  - high success level
- g) Do you plan to continue (or begin if you answered NO in Question a) using Facebook in the future?

#### **3.4.5 Research by Shu and Chuang (2010)**

Shu and Chuang (2010) identified 12 distinct factors associated with social networking site use, namely, meeting new friends, entertainment, maintaining relationships, understanding and learning, searching for friends, social involvement, trust in websites, trust in other members, information searching, costs, quality of friends and attitudes. Their questionnaire consisted of three sections containing demographic data, social networking site behaviour, and social networking site perceptions comprising the 12 dimensions. Seventy questions were asked and responses were made on 7-point Likert-type scales, with 7 = strongly agree.

Table 3.5 outlines the 70 questions that the respondents were required to answer.

**TABLE 3.5: QUESTIONNAIRE COMPRISING THE 12 DIMENSIONS**

Dimension	Item
Meeting new friends	<p>Social networking sites can help me make more friends.</p> <p>Social networking sites can help me maintain online friendships.</p> <p>Social networking sites can help me find friends sharing the same interests as mine.</p> <p>Social networking sites can help me share my thoughts online.</p> <p>Social networking sites can help me assist my Internet friends.</p> <p>Social networking sites are a good way to make friends.</p> <p>Social networking sites are a good way to find friends with the same interests as mine.</p>
Entertainment	<p>Social networking sites are interesting websites.</p> <p>Social networking sites can entertain me.</p> <p>I use social networking sites to kill time.</p> <p>Social networking sites make me happy.</p> <p>Social networking sites can bring me out of a depression.</p>
Maintaining relationships	<p>Social networking sites can help me contact old friends.</p> <p>Social networking sites can help me contact distant friends.</p> <p>Social networking sites can help me contact friends whom I usually do not have time to contact.</p> <p>Social networking sites can help me stay connected with old friends.</p> <p>Social networking sites can help me stay connected with distant friends.</p> <p>Social networking sites can help me stay connected with friends whom I usually do not have time to contact.</p>
Understanding and learning	<p>Social networking sites can help me understand my friends more.</p> <p>Social networking sites can help me learn how to get along with people.</p> <p>Social networking sites can help my social learning.</p> <p>Social networking sites can help me interact with people.</p> <p>I learn a lot from social networking sites.</p> <p>I believe social networking sites are a platform for social learning.</p> <p>I believe social networking sites are a platform for social interaction.</p> <p>I feel social networking sites are a microcosm of society.</p>
Searching for friends	<p>Social networking sites can help me find friends to meet.</p> <p>Social networking sites can help me find classmates or colleagues.</p> <p>Social networking sites can help me find lost friends.</p>

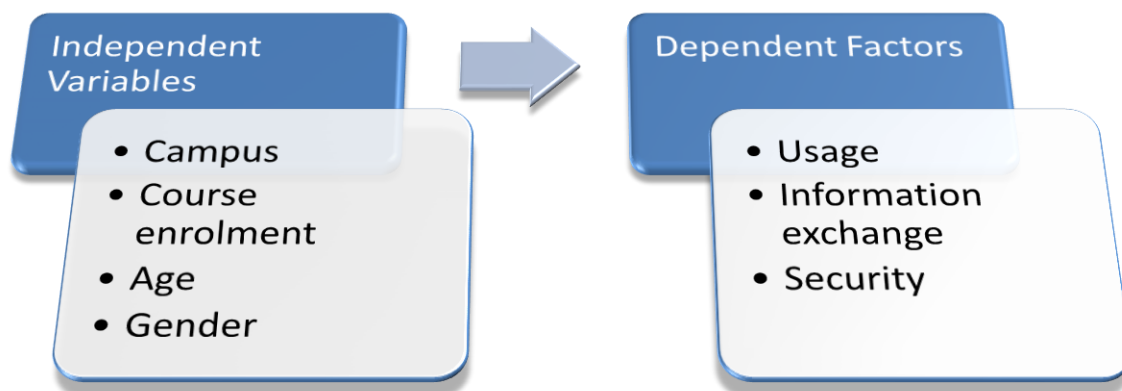
Dimension	Item
	<p>Social networking sites can help me find more information about my offline friends.</p> <p>In general, social networking sites help me make friends.</p> <p>Social networking sites are a good tool for finding old friends.</p> <p>Social networking sites are a good tool for finding people.</p>
Social involvement	<p>Social networking sites can help me improve my interpersonal relationships.</p> <p>Social networking sites are good for mental health.</p> <p>Social networking sites can help me participate in more social activities.</p> <p>Social networking sites can help me get along with people more easily in real life.</p> <p>Social networking sites can help me avoid being isolated.</p> <p>Social networking sites can help me escape loneliness.</p> <p>Social networking sites can help me increase my social involvement.</p> <p>Social networking sites can help me know more people in real life.</p>
Trust in websites	<p>I trust social networking sites in general.</p> <p>I believe social networking sites do not use my information for other purposes.</p> <p>I believe social networking sites are trustworthy.</p> <p>I believe social networking sites respect my privacy.</p> <p>I believe in social networking sites' privacy policies.</p> <p>I believe social networking sites do not give my information to other people.</p>
Trust in other members	<p>I believe my social networking sites friends are sincere.</p> <p>I believe my social networking sites friends are trustworthy.</p> <p>I believe my social networking sites friends do not use my information for other purposes.</p> <p>I believe my social networking sites friends are dependable.</p> <p>I believe my social networking sites friends are harmless.</p> <p>I believe my social networking sites friends do not cheat me.</p>
Information searching	<p>Social networking sites can help me find school-related information.</p> <p>Social networking sites can help me find work-related information.</p> <p>My social networking sites friends provide me information.</p> <p>Social networking sites make it easier for me to get information.</p> <p>Social networking sites can help me find interesting and unique information.</p>
Cost	<p>Social networking sites are time consuming.</p> <p>People are too busy to use social networking sites.</p>

Dimension	Item
	Using social networking sites is costly. Using social networking sites is tedious. Using social networking sites is a waste of time.
Quality of friends	It is meaningful to have social networking site friends. Social networking sites friends are quality people. Social networking sites friends are interesting. Social networking sites friends are valuable. Social networking sites friends are amiable. Social networking sites friends are good people.
Attitudes	Using social networking sites is a good idea. Using social networking sites is enjoyable. Social networking sites are a trend. It is wise to use social networking sites. I feel happy using social networking sites.

Source: Shu and Chuang (2010)

### 3.5 FRAMEWORK FOR THE STUDY

This study focuses on general usage of social media by students at NMMU, their perceptions of social networking in general and their perceptions of NMMU Social Networking. Figure 3.1 illustrates the framework for this study.



Source: Researcher's own construct

**FIGURE 3.1: FRAMEWORK FOR THE STUDY**

Figure 3.1 identifies both the independent variables and the dependent factors for social media usage. The independent variables consist of the location of the campus where the respondents are situated, the courses for which they are registered, as well as their age and gender. The dependent factors are used to determine if there are any relationships with the independent variables which consists of usage, information exchange and security.

### **3.6 SUMMARY**

In this chapter, previous studies related to social media and social networking in general were identified as well as a number of studies relating to social media and library services in higher education institutions, educational use, as well as business use of social networking and social media. These were further distinguished according to year of study starting from older studies to the most recent. The main findings from each study were also discussed. Although it is evident that research has been conducted on the topic of social media and social networking, there has been limited research on social networks and students.

The studies identified in this chapter focused on topics like computer usage of students, motivations why student engage in social networking and sociability on the social web. Some studies also considered how social media and social networking sites could be used by libraries and libraries to become more visible within these environments. A number of studies addressed educational uses of social media and investigated how it could be used to engage with students as well as students' use of it for educational purposes. Through the studies identified, it was also established that there were various business uses for social media.

Organisations should encourage social networks to enhance knowledge management and e-learning as well as the prospect of career development through social media and social networking in the form of professional sites. The studies also tapped into how these media could be used for selection purposes.

The findings from these studies assisted with the selection of a research design and methodology which is discussed in chapter 4. The research design and methodology assisted with identifying the different uses of social media and social networking of NMMU students. In chapter 4, the data and results of the questionnaire are also analysed so that conclusions can be reached and recommendations made.



## **CHAPTER FOUR**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **4.1 INTRODUCTION**

In chapter 3, previous research conducted on the use of social networking and social media for library, educational and business purposes was discussed so that a research design could be identified. A research design not only provides a framework for the collection and analysis of data, the choice of research design reflects decisions about the priority being given to a range of dimensions of the research process (Bryman & Bell, 2007). The research methodology can also be called a paradigm, which is defined as the general approach of how research should be conducted. Collis and Hussey (2003) describe two main research paradigms (namely, the positivistic paradigm which is alternatively known as the quantitative, objectivist, scientific, experimentalist or traditionalist research paradigm and secondly, the phenomenological paradigm which is also known as the qualitative, subjectivist, humanistic or interpretive research paradigm.

This chapter focuses on the research design and methodology used in this study, and discusses the quantitative and qualitative research design and methodology followed by a detailed description of the methodology approach selected for this study including sampling, questionnaire design and data collection. Lastly, the data editing and analysis is outlined.

#### **4.2 RESEARCH DESIGN**

A research design is the plan according to which research participants are obtained and information is collected from them. In it is a description of what is going to be done with participants with a view of reaching a conclusion about a research problem (Welman & Kruger, 2001). For Welman and Kruger (2001), the research design has to specify:

- What number of groups should be used

- Whether these groups are to be drawn randomly from the populations involved and whether they should be assigned randomly to groups
- What exactly should be done with them in the case of experimental research

According to Zikmund (2000), the research design is developed after the research problem has been formulated, and is a master plan specifying the methods and procedures for collecting and analysing the needed information. Therefore, it is a framework of the research plan of action. The researcher must also determine the sources of information, the design technique, the sampling methodology, and the schedule of the research (Zikmund, 2000).

Table 4.1 lists some common research methodologies (Leedy & Ormrod, 2010).

**TABLE 4.1: METHODOLOGY AND ASSOCIATED RESEARCH GOALS**

<b>Method</b>	<b>Characteristics of the method and the research goals the method attempts to achieve</b>
Action research	A type of applied research that focuses on finding a solution to a local problem in a local setting.
Case study	A type of qualitative research in which in-depth data are gathered relative to a single individual, program, or event, for the purpose of learning more about an unknown or poorly understood situation.
Content analysis	A detailed and systematic examination of the contents of a particular body of material (for example, television shows, magazine advertisements, work of art) for the purpose of identifying patterns, themes, or biases within that material.
Correlational research	A statistical investigation of the relationship between two or more variables. Correlational research looks at surface relationships but does not necessarily probe for casual reasons underlying them.
Developmental research	An observational-descriptive type of research that either compares people in different age groups or follows a particular group over a lengthy period of time. Such studies are particularly appropriate for looking at developmental trends.
Ethnography	A type of qualitative inquiry that involves an in-depth study of an intact cultural group in a natural setting.
Experimental research	A study in which participants are randomly assigned to groups that undergo various researcher-imposed treatments or interventions, followed by observations or measurements to assess the effects of the treatments.
Ex post facto	An approach in which conditions that have already occurred are

Method	Characteristics of the method and the research goals the method attempts to achieve
research	considered and then data collected to investigate a possible relationship between these conditions and subsequent characteristics or behaviours.
Grounded theory research	A type of qualitative research aimed at deriving theory through the use of multiple stages of data collection and interpretation.
Historical research	An effort to reconstruct or interpret historical events through the gathering and interpretation of relevant historical documents and/or oral histories.
Observation study	A type of quantitative research in which a particular aspect of behaviour is observed systematically and with as much objectivity as possible.
Phenomenological research	A qualitative method that attempts to understand participants' perspectives and views of social realities.
Quasi-experimental research	A method similar to experimental research but without random assignment to groups.
Survey research	A study designed to determine the incidence, frequency, and distribution of certain characteristics in a population. It is especially common in business, sociology, and government research.

Source: Leedy and Ormrod (2010:108)

Table 4.1 identifies a number of methods that can be adopted to achieve research goals with each method having its distinct characteristics to accommodate different research goals.

#### 4.2.1 Sample

According to Brynard and Hanekom (2006), sampling is a technique employed to select a small group with a view to determining the characteristics of a large group. If selected finely, the sample will display the same characteristics or properties as the large group. Brynard and Hanekom (2006) describe the use of sampling to:

- Simplify the research – it is easier to study a representative sample of a population than to study the entire population
- Save time – studying an entire population can be time-consuming, especially if the population is large or distributed over a large geographical area

- Cut costs – observing, interviewing, or using questionnaires to collect data from every element of a population, can be very costly if the population is large and geographically distributed over a large area
- Determine specific properties of the whole

Struwig and Stead (2001) list the following sampling methods which are grouped into probability and non-probability sampling techniques.

### ***a) Non-probability sampling techniques***

The probability of any particular member of the population being chosen is unknown, and selection of sampling units is random as researchers rely on personal judgement.

The following are techniques used to conduct non-probability sampling:

#### **i) Convenience sampling**

This sample is chosen on the basis of availability. Respondents are selected because they are accessible and articulate.

#### **ii) Judgement sampling**

A sample could also be selected on the basis of expert judgement. Specialists in the subject of the survey choose what they believe to be the best sample for a particular study.

#### **iii) Quota sampling**

Respondents can also be selected according to their characteristics such as age, income, socio-economic status and gender among others. In this case, the respondent

has to comply with certain criteria before qualifying for inclusion in the sample. Fieldworkers often decide which respondents meet the set criteria.

iv) Snowball sampling

Refers to a variety of procedures in which initial respondents are selected by probability methods, but in which additional respondents are then obtained from information provided by the initial respondents.

***b) Probability sampling techniques***

Every element in the population has a known non-zero probability of selection. This means that each element has a known probability of being included in the sample. The following are probability sampling techniques:

i) Random probability sampling

For this technique, the researcher needs a complete and accurate list of all items in the universe. Random samples may be drawn with the aid of tables of random numbers or from a statistical computer program.

ii) Stratified random sampling

This technique is similar to random probability sample except that with stratified random sampling, the sample is designed so that a predetermined number of items are chosen from each stratum.

iii) Cluster sampling

Where it is not practicable to choose respondents individually, cluster sampling may be used. The researcher divides the items in the universe into groups and then selects any number of these groups at random and enumerates their items completely.

iv) Systematic sampling

This technique includes a procedure in which an initial point is selected by a random process and then every  $n$ th number on the list is selected.

v) Multi-stage area sampling

This technique involves using a combination of probability sampling techniques. It involves two or more steps that combine some of the probability techniques.

The sampling method used to collect primary data is important because it forms the foundation for the conclusions drawn. It is, therefore, important to take into account the nature of the topic and its specific characteristics as well as data requirements when considering a sampling method.

The non-probability sampling method was selected for this study. This method seemed the most appropriate as students were invited to participate in the research by completing a survey questionnaire at the end of their lectures. Students from the NMMU that were registered in 2011 were asked to participate in the study, and to voluntarily complete the questionnaire. To ensure that enough students participated in the survey, some incentives were provided to encourage students to complete the questionnaire (for example, winning a cash prize).

#### **4.2.2 Questionnaire design**

According to Thomas (2003), the word questionnaire is typically used in a general sense to mean any printed set of questions that participants in a survey are asked to answer, either by checking one choice from among several possible answers listed beneath a question or by writing out an answer. Thomas (2003) identifies a method of creating and administering questionnaires which involves eight steps, namely:

- Research focus – researcher states the central question or questions that the project is to answer
- Constituent sub-questions – specific questions whose answers contribute to answering the central question are identified
- Questionnaire format – questionnaire's structure is selected in view of the respondents' likely level of reading and writing skills, knowledge of the information sought on the questionnaire, and willingness to report such information in the form that the questionnaire requires
- Manner of administration – dissemination of the questionnaire to be administered to respondents is determined
- Tryout – initial form of the instrument is piloted with a sample of respondents to identify weaknesses in the questionnaire and in the manner of administering it.
- Revision – results of the pilot are used for improving the clarity of the instrument and the way of administering the questionnaire
- Selection of recipients – respondents who will be asked to complete the questionnaire are identified
- Administration – questionnaire is distributed to recipients, who are asked to fill it out and return it to the researcher

According to Thomas (2003), the advantages of questionnaires are that they enable the researcher to collect a large quantity of data in a relatively short period of time. The researcher does not need to be present at the time the information is provided, and data can be collected from respondents in distant places if the questionnaires are sent by regular mail or over the Internet. A wide variety of information can be gathered from respondents, particularly if the questions are multiple-choice types that allow respondents to express their opinions by marking one or more items in a list of options. When multiple-choice items are used, it is easy to classify answers and calculate their frequencies.

A disadvantage of questionnaire surveys is that, if the researcher is not present to supervise the respondents as they complete the questionnaire, respondents can easily

avoid filling out the form and returning it to the researcher. Consequently, researchers are obliged to adopt ways to encourage a high rate of return of properly completed instruments. Those ways can include designing a questionnaire that is relatively short, easy to understand and easy to complete, following up the initial distribution of questionnaires with appeals to respondents to fill out and return questionnaires within a reasonable period of time, and offering incentives for returning questionnaires.

According to Struwig and Stead (2001), a questionnaire is needed if a researcher decides to collect primary data by asking questions. Questionnaires are designed by, firstly, interviewing people to determine the content area or by consulting the literature. A pilot study is then conducted once the items have been written and a small sample of respondents is selected to complete the draft questionnaire. The sample should indicate any problems respondents may have with the instructions or the items. Two main types of questionnaires can be developed, namely, interviewer-administered questionnaires and self-administered questionnaires.

Struwig and Stead (2001) state that it is important that a questionnaire is designed to maintain the interest of the respondent and propose the following general guidelines for questionnaire design. The questionnaire should usually:

- Contain precise and clear instructions on how to answer questions
- Be divided into logical sections by subject
- Start with questions that are easy to answer
- Proceed from general to specific questions
- Ask personal or sensitive questions last
- Avoid subject-related or technical jargon
- Employ the respondent's vocabulary
- Minimise the number of questions to avoid respondent fatigue

Struwig and Stead (2001) also identify the following types of questions for questionnaire use:



**a) Open-ended questions**

Respondents are free to answer these questions in their own words and to express any ideas they think apply. However, no choices or alternatives are offered. These questions are appropriate for opening questions since they introduce the subject and elicit general reactions. They are also useful when further clarification is needed.

**b) Multiple-choice questions**

These questions offer specific alternatives from which the respondent must choose one or more. This type of question is preferred to open-ended questions because it simplifies the recording, tabulation and editing process.

When designing multiple-choice questions, it is important to:

- Take special care to prevent the options/alternatives from overlapping as this confuses respondents
- Ensure that the list of alternatives is not too long
- Make sure that respondents understand how many responses they are permitted to select
- Ensure that the first item on the list has a favourable bias
- Leave scope for the addition of the respondents' own by adding another option if uncertainty exist whether all possible alternatives have been listed

A checklist is a type of question that is closely related to multiple-choice questions. This type of question list various attributes a respondent is required to rate in terms of given criteria. They are also referred to as grids.

**c) *Dichotomous questions***

These questions allow for responses that indicate an unmistakable division, for example “yes” or “no”. Respondents are offered a choice between two options only, for example, *did/did not* and *cash/credit*.

**d) *Scaled-response questions***

Scaled-response questions are used to gather data on attitudes and perceptions of respondents toward a topic. Two examples are the Likert-type scale and the semantic differential scale. A Likert-type scale is usually linked to a number of statements to measure attitudes or perceptions and 5-point or 7-point scales are often used. A semantic differential scale is similar to a Likert-type scale, but only the two bipolar adjectives are mentioned on a scale of between 7 and 11 points. When either of the two scales is used, ensure that there are proper instructions on how to complete the questionnaire.

**e) *Ranking questions***

A respondents ranks a list of items from most to least important starting with 1 = most important.

A questionnaire was designed based on the literature study that identified the various types of social networks that students could engage in. This questionnaire included four sections that focused on general usage of social media by students at NMMU, their perceptions of social networking in general and, lastly, their perceptions of NMMU Social Networking. The questionnaire used in this study adopted a number of different types of questions, namely, multiple-choice questions, dichotomous questions and scaled-response questions (see Annexure A).

Section A of the questionnaire consisted of nine items establishing the biographical data of respondents and used multiple-choice questions, short open-ended questions, closed

questions and dichotomous questions, to obtain this data. Section B of the questionnaire consisted of ten items and used multiple-choice questions, as well as closed and open-ended questions. This data was used to identify trends in the usage of social media and social networks. Sections C and D of the questionnaire used a five point Likert-type scale questions with 5 representing strongly agree to 1 being strongly disagree. These sections consisted of 20 and 25 items respectively. Section C of the questionnaire aimed to gain insight into the perceptions of social networking in general, while Section D of the questionnaire focused on perceptions of NMMU Social Networking. Both Sections C and D of the questionnaire were used to analyse factors of usage, information exchange and security.

#### **4.2.3 Data collection**

According to Brynard and Hanekom (2006), research methodology is the “how” of collecting data, and the processing thereof within the framework of the research process. Two basic methodologies for collecting data can be distinguished, namely quantitative and qualitative methods. Both methods make use of specific techniques to collect data, including literature reviews, interviews, questionnaires and direct observation.

Instruments such as attitude scales and rating scales have been developed to measure the reliability of the data collection methods. The validity and reliability of measuring instruments also have to be tested. Validity and reliability will be discussed in Section 4.2.4.

According to Veal (2005), the term qualitative is used to describe research methods and techniques that use and generate qualitative, rather than quantitative, information. Generally, qualitative methods involve collecting a relatively large amount of “rich” information about a relatively small number of people or organisations rather than a limited amount of information about a large number of people or organisations.

Veal (2005) identifies the advantages of qualitative research methods which include:

- enabling the researcher to understand and explain in detail the personal experiences of individuals
- focusing on people's understanding and interpretations rather than seeking external causes for behaviour
- allowing the researcher to experience research issues from a participant's perspective
- interesting and understandable for readers not trained in statistics as qualitative research reports are usually presented in a narrative form rather than a statistical form
- examining personal changes over time
- focusing on human-interest issues that are meaningful

According to Pellissier (2007), quantitative research is carried out to investigate, for example, how many people have similar characteristics and views. When large numbers of people need to be studied, it is most cost effective to carry out a quantitative survey to collect the data. This is often done by means of questionnaires, which could be posted, faxed or sent to respondents via email or Internet.

Table 4.1 presents a summary of differences between quantitative and qualitative approaches (Leedy & Ormrod, 2010).

**TABLE 4.2: DISTINGUISHING CHARACTERISTICS OF QUANTITATIVE AND QUALITATIVE APPROACHES**

Question	Quantitative	Qualitative
What is the purpose of the research?	<ul style="list-style-type: none"> <li>• To explain and predict</li> <li>• To confirm and validate</li> <li>• To test theory</li> </ul>	<ul style="list-style-type: none"> <li>• To describe and explain</li> <li>• To explore and interpret</li> <li>• To build theory</li> </ul>
What is the nature of the research process?	<ul style="list-style-type: none"> <li>• Focused</li> <li>• Known variables</li> <li>• Established guidelines</li> <li>• Predetermined methods</li> <li>• Somewhat context-free</li> <li>• Detached view</li> </ul>	<ul style="list-style-type: none"> <li>• Holistic</li> <li>• Unknown variables</li> <li>• Flexible guidelines</li> <li>• Emergent methods</li> <li>• Context-bound</li> <li>• Personal view</li> </ul>
What are the data like, and how are they collected?	<ul style="list-style-type: none"> <li>• Numeric data</li> <li>• Representative, large sample</li> <li>• Standardised instruments</li> </ul>	<ul style="list-style-type: none"> <li>• Textual and/or image-based data</li> <li>• Informative, small sample</li> <li>• Loosely structured or nonstandardised observations and interviews</li> </ul>
How are the data analysed to determine their meaning?	<ul style="list-style-type: none"> <li>• Statistical analysis</li> <li>• Stress on objectivity</li> <li>• Deductive reasoning</li> </ul>	<ul style="list-style-type: none"> <li>• Search for themes and categories</li> <li>• Acknowledgement that analysis is subjective and potentially biased</li> <li>• Inductive reasoning</li> </ul>
How are the findings communicated?	<ul style="list-style-type: none"> <li>• Numbers</li> <li>• Statistics, aggregated data</li> <li>• Formal voice, scientific style</li> </ul>	<ul style="list-style-type: none"> <li>• Words</li> <li>• Narratives, individual quotes</li> <li>• Personal voice, literary style</li> </ul>

Source: Leedy and Ormrod, (2010:96)

From Table 4.2, it is evident that there are distinct differences in quantitative and qualitative approaches with regard to their applications for the purpose of research, the nature of the research process, what the data is like, and how it is collected, how the data is analysed to determine its meaning, and how the findings will be communicated.

This study used a quantitative approach as a large sample was required to investigate students' social media and social networks practices using a survey questionnaire.

#### **4.2.4 Validity and reliability of measurement instruments**

The validity and reliability of the research measurement instruments influence the extent to which something about the phenomenon being studied can be learned, the probability that statistical significance in the data analysis will be obtained, and the extent to which meaningful conclusions from the data can be drawn (Leedy & Ormrod, 2010). The validity of a measurement instrument is the extent to which the instrument measures what it is intended to measure. Reliability is the consistency with which a measuring instrument yields a certain result when the entity being measured has not changed. Validity and reliability take different forms, depending on the nature of the research problem, the general methodology the researcher uses to address the problem, and the nature of the data collected.

Leedy and Ormrod (2010) identify different forms of validity, each of which is important in different situations. These include:

- Face validity is the extent to which, on the surface, an instrument looks like it is measuring a particular characteristic and is useful for ensuring the cooperation of participants in a research study. But because it relies entirely on subjective judgment, it is not convincing evidence that an instrument is truly measuring what the researcher wants to measure.
- Content validity is the extent to which a measurement instrument is a representative sample of the content area being measured. Content validity is often a consideration when a researcher wants to assess people's achievement in some area. A measurement instrument has high content validity if its items or questions reflect the various parts of the content domain in appropriate proportions and if it requires the particular behaviours and skills that are central to that domain.
- Criterion validity is the extent to which the results of an assessment instrument correlate with another related measure.

- Construct validity is the extent to which an instrument measures a characteristic that cannot be directly observed but is assumed to exist based on patterns in people's behaviour. Motivation, creativity, racial prejudice, bedside manner are all constructs in that none of them can be directly observed and measured.

Sometimes there is universal agreement that a particular instrument provides a valid instrument for measuring a particular characteristic but when there is no such universal agreement, evidence must be provided that an instrument used has validity for the purpose.

Researchers can include the following to demonstrate that their measurement instruments have validity for their purposes:

- Multi-trait multi-method approach – Two or more different characteristics are each measured using two or more different approaches. The different measures of the same characteristic should be highly correlated.
- Table of specifications – To construct a measurement instrument that provides a representative sample of a particular content domain, in other words, to establish content validity, the researcher constructs a two-dimensional grid listing the specific topics and behaviours that reflect achievement in the domain. In each cell of the grid, the researcher indicates the relative importance of each topic-behaviour combination. He or she then develops a series of tasks or test items that reflects the various topics and behaviours in appropriate proportions.
- Judgement by a panel of experts – Several experts in a particular area are asked to scrutinise an instrument and give an informed opinion about its validity for measuring the characteristic in question.

Leedy and Ormrod (2010) also identify different forms of reliability, each of which is important in different situations, including:

- Inter-rater reliability is the extent to which two or more individuals evaluating the same product or performance and give identical judgments.
- Internal consistency reliability is the extent to which all of the items within a single instrument yield similar results.
- Equivalent forms reliability is the extent to which two different versions of the same instrument yield similar results.
- Test-retest reliability is the extent to which a single instrument yields the same results for the same people on two different occasions.

A researcher can enhance the reliability of a measurement instrument in several ways. Firstly, the instrument should always be administered in a consistent fashion. This means there should be standardisation in use of the instrument from one situation or person to the next. Secondly, to the extent that subjective judgements are required, specific criteria should be established that dictate the kinds of judgements the researchers makes. And lastly, any research assistants who are using the instrument should be well trained so that they obtain similar results.

To ensure validity and reliability for this study a pilot study was conducted whereby a small sample of typical users of social media and social networks were asked to complete the questionnaire and give feedback on the questionnaire design. The feedback obtained from the pilot study brought about the inclusion and exclusion of items in the questionnaire. Two additional items were included into Section A of the questionnaire where respondents were asked to state the campus where they were situated on as well as the qualification for which they were registered.

Five items were removed from Section C of the final questionnaire as feedback from the pilot study revealed that the items removed yielded the same responses from all the respondents who participated in the pilot study. To ensure greater validity and reliability, the researcher conducted and administered the study unaided and in so doing, the respondents all received the same instructions on how to complete the questionnaire. The researcher also made himself available to answer questions asked by the



respondents whilst they completed the questionnaire. The questionnaires were checked by the researcher to ensure that all fields and questions were answered before the respondent submitted the completed questionnaire.

Further reliability was determined by calculating Cronbach Alphas so that the responses to items on multiple levels like Likert-type scales used were deemed appropriate. Validity was also be ensured by means of content validity where experts and active users of social media check and comment on the questionnaire.

### **4.3 ETHICAL CONSIDERATIONS FOR THE STUDY**

As students were required as respondents in this study, it was necessary to obtain ethical clearance. The researcher corresponded with the NMMU Research Ethics Committee to obtain approval to conduct research using human subjects to obtain responses through the use of a survey questionnaire. The participant has the free will to complete or not to complete the questionnaire. No personal information will be required from the participants, only data on a spreadsheet will be used. See Annexure C for a copy of the ethical clearance.

### **4.4 DATA EDITING AND ANALYSIS**

The analysis of the data required is important as it gives meaning and understanding to the data that has been collected. This section outlines the editing and coding of data as well as the analysis thereof

#### **4.4.1 Editing and coding**

As soon as the fieldwork had been completed, the data had to be converted into a format that would answer the decision-maker's questions (Zikmund, 2000). Data processing began with the editing and coding of the data. Editing involved checking the data collection forms for omissions, legibility and consistency in classification.

The editing process corrected problems like interviewer errors before the data was transferred to a computer or readied for tabulation. Before data could be tabulated, meaningful categories and character symbols needed to be established for groups of responses. The rules for interpreting, categorising, and recording the data are called codes, and the coding process facilitates computer or hand tabulation. If computer analysis is used, the data is entered into the computer and verified.

According to Hesse-Biber and Leavy (2011), the coding process usually involves the researcher doing some of the following:

- Assigning words to segments of text
- Sorting coded text segments in new ways
- Condensing data into analysable segments
- Generating analytical concepts

Editing and coding of this study was started with the researcher discarding questionnaires that were deemed invalid as the result of the respondent not completing all of the required fields and questions in the questionnaire. As a result of this, 37 questionnaires were discarded and disregarded from the sample. Codes were created for items in Section A and B where respondents were required to specify after choosing the option “other”.

#### **4.4.2 Data analysis**

Analysis is the application of reasoning to understand and interpret the data that has been collected about a subject (Zikmund, 2000). It may involve determining consistent patterns and summarising the appropriate details revealed in the investigation. For the study, the appropriate analytical technique for data analysis was determined by information requirements, the characteristics of the research design, and the nature of the data collected. Statistical analysis might range from portraying a simple frequency

distribution to complex multivariate analysis, such as multiple regressions (Zikmund, 2000).

#### **a) *Descriptive statistics***

This is concerned with the description and summary of the data obtained for a group of individual units of analysis (Welman & Kruger, 2001). The purpose of these statistics is to provide an overall, coherent and straightforward picture of a large amount of data (Struwig & Stead, 2001). Struwig and Stead (2001) identify two types of descriptive statistics, namely, measures of central tendency and dispersion; and skewness and kurtosis:

- Measures of central tendency and dispersion: include the mode, median and mean. The mode is the score that occurs most frequently, the median refers to that score which has an equal number of scores above and below it and, therefore, makes it the most central item in a group of numbers, and the mean is the average score
- Measures of dispersion or variability: indicate the degree to which the scores are spread out and include the range, standard deviation and variance. . The range is the difference between the highest and lowest scores from a distribution.
- The standard deviation measures the deviation of each score from the mean and then averages the deviations. The variance is the square of the standard deviation.
- Skewness and kurtosis: shape of the distribution of the scores is also important to consider when analysing the score. Skewness refers to the degree of deviation from symmetry, while kurtosis refers to how flat or peaked the distribution is.

#### **b) *Inferential statistics***

Inferential statistics is concerned with inferences that can be made about population indices on the basis of the corresponding indices obtained from samples drawn randomly from the populations (Welman & Kruger, 2001). Inferential statistics assists in

generalising findings from the sample to the larger population. Types of inferential statistics include the following:

- Statistical significance: A significant difference or relationship is one that is unlikely to have happened by chance. Therefore, the higher the difference between two sample percentages, the more likely it is that the difference is real and that it is not a statistical chance occurring. Significance is expressed as p-values with a p-value of 0.05 used in this study. Any p-value calculated which is below this is considered statistically significant.
- T-test: Many research results take the form of averages. In statistical terminology an average is referred to as a mean (Veal, 2005). The t-test is the simplest form of analysis to compare two means to determine whether they are statistically significant. According to Veal (2005), there are two situations in which researchers might wish to compare means. Firstly, when comparing the means of two variables that apply to everyone in the sample, and secondly, when comparing the means of one variable for two subgroups in the sample. Again, a significance level of 0.05 was used for this study.
- Analysis of variance (ANOVA): The ANOVA determines whether groups differ statistically significantly with regard to the group mean scores from one dependent variable.
- The grouping is made up of two or more categories or levels (Struwig & Stead, 2001). The independent variable is the group variable and the dependent variable is the measure. Once again, a significant level of 0.05 was selected for this study.

Once the primary data was collected, it was analysed using appropriate statistical methods. Both descriptive and inferential statistics were used to analyse the data and to investigate the use of social media among students.

## 4.5 SUMMARY

In this chapter, literature was identified to assist the researcher in adopting the most appropriate research design and methodology for this study. The research design revealed two types of sampling methods that could be used to draw samples of which non-probability sampling was chosen for this study. This method was the most appropriate as students were invited to participate in the research by completing a survey questionnaire at the end of their lectures. It was decided that students from the NMMU who were registered in 2011 would be asked to participate in the study.

The questionnaire consisted of four sections that focused on the general usage of social media by NMMU students, their perceptions of social networking in general and their perceptions of NMMU Social Networking. Student satisfaction for their use of social networks would also be determined. The questionnaire was designed with the aid of the various methods, types of questions, and guidelines identified in the questionnaire design section of this chapter. A quantitative approach would be used in this study as a large sample was required using the questionnaire which was less costly and time consuming. A pilot study was conducted whereby a small sample of typical users of social media and social networks were asked to complete the question and give feedback of the questionnaire to ensure validity and reliability.

The research design and methodologies used from this chapter describe how the research was conducted. In chapter 5, the results of the research are provided.

## **CHAPTER FIVE**

### **THE RESEARCH RESULTS**

#### **5.1 INTRODUCTION**

Chapter 4 discussed the research design and methodology that was used to obtain the data for this study. Chapter 5 presents the findings obtained from the statistical analysis of the questionnaire of the sample.

To make sense of the data obtained from the questionnaire, it is important to first summarise the data (Struwig & Stead, 2001). By following certain procedures, the data is first coded and then entered on a word processor, a spread sheet or a database file. The data is then saved and can be analysed using a statistical or qualitative analysis program.

Chapter 5 consists a number of tables and graphs formulated to display the results of the statistical analysis which comprised of two sections, firstly, a discussion of the descriptive statistics used to analyse the data, and secondly, the inferential statistics performed. The descriptive and inferential statistics that were performed of the sample included an analysis of the usage, information exchange and security of social networking and social media. The more advanced inferential statistics that were performed followed the descriptive statistics and included the analyses of variance (ANOVA) and t-tests.

#### **5.2 DESCRIPTIVE STATISTICAL RESULTS**

For the data to have meaning, it needs to be analysed. For the purpose of quantitative analysis for this study, both descriptive and inferential statistics were performed. The descriptive statistics which were carried out are presented first and include a frequency count.

The aim of descriptive statistics is to present the data in a summarised form that is easy to interpret (Struwig & Stead, 2001). The purpose of these statistics is to provide an overall, coherent and straightforward picture of a large amount of data. Section 5.2.1 presents the findings and results obtained from the frequency distributions that were performed. Frequency distributions relating to the biographical data of respondents, registration, access to social networking and social media, use of social media, perceptions of social networking in general, and perceptions of NMMU social network were included.

### 5.2.1 Biographical data of respondents

Section A of the questionnaire obtained biographical data of respondents and used five items to collect this data from the respondents. The variables of those five items were:

- Age
- Gender
- Campus
- Course enrolment
- Qualification

The results of Section A of the questionnaire are illustrated in Table 5.1 which indicates the percentage of responses to the five variables.

**TABLE 5.1: BIOGRAPHICAL DATA OF RESPONDENTS**

Variable	% response
<b>Age:</b>	
17 – 21	87.1%
22 – 25	9.3%
26 – 30	2.1%
Older	1.5%
<b>Gender:</b>	
Male	32.8%
Female	67.2%
<b>Campus:</b>	
Second Avenue Campus	65.2%
South Campus	20.7%

Variable	% response
Missionvale Campus	13.5%
North Campus	0.6%
<b>Course enrolment:</b>	
Degree	18.3%
Diploma	76.3%
National Higher Certificate	5.4%
<b>Qualification:</b>	
BCom Law	0.6%
BCom Human Resource Management	0.9%
BCom Information Systems and Auditing	0.3%
BCom Computer Science and Information Systems	0.6%
BCom Economics	0.6%
BCom Accounting	9.6%
BCom Financial Planning/Business and Economics/Business Management/General Business Management/General	2.4%
BA Media, Communications, Culture	0.6%
BSC Construction Management	0.6%
BA Human Resources Management	0.6%
BA Administration	0.6%
NHC Accounting	5.4%
NDip Economics	22.8%
NDip Human Resources Management	11.7%
NDip Logistics	13.5%
NDip Inventory and Stores Management	8.7%
NDip Management	17.1%
NDip Public Relations Management	3.6%

Source: Researcher's own construct

From Table 5.1, it is evident that a large percentage of the respondents are between the ages of 17 and 21 (87.1%) with majority of them being female (67.2%). The majority of the respondents were situated on the Second Avenue Campus (65.2%) of NMMU. The majority of the respondents were enrolled for Diploma courses (76.3%) and most were registered for NDip Economics (22.8%) and NDip Management (17.1%).

### 5.2.2 Registration and access to social networking and social media

Respondents were also required to provide information about their access to social networking and social media in Section A of the questionnaire. Four items were used, namely:



- Registration
- Preferred connection
- Place of access
- Current social networking site/s

Table 5.2 outlines the results of the registration of respondents to social networking site/s.

**TABLE 5.2: REGISTRATION OF RESPONDENTS TO SOCIAL NETWORKING SITES**

<b>Variable</b>	<b>% response</b>
<b>Registration:</b>	
Yes	99.4%
No	0.6%
<b>Preferred Connection:</b>	
Cellular phone	55.3%
Desktop computer	12.7%
Laptop	9.4%
Apple iPad	22.7%
<b>Place of access:</b>	
Home	50.2%
Campus	40.1%
Work	2.5%
Residence	0.2%
Cellphone	1.6%
Club	0.4%
Party	0.4%
Internet Café	0.5%
From friends	0.2%
Church	0.2%
Taxi	0.2%
<b>Current social networking site/s:</b>	
Facebook	37.3%
Twitter	11.1%
MySpace	2.2%
YouTube	16.4%
LinkedIn	1.7%
Mxit	11%
Qooh – Me	0.1%
Google +	0.2%
Blackberry Messaging	1.6%
Whats App	2%

Variable	% response
Netlog	0.4%
Yahoo	0.1%
Rate n Date	0.1%
Person	0.1%
2Go	2%
Qeeb	0.1%
Vuzu	0.1%
Gmail	0.1%
FSMS	0.1%
Badoo	0.1%
Hotmail Networking	0.1%
Blueworld	0.1%
Tumblr	0.1%

Source: Researcher's own construct

Table 5.2 indicates that the majority of the respondents were registered on a social networking site/s (99.4%). Most of the respondents indicated that they were connected to social networking sites via their cellular phones (55.3%) with 22.7% also using their Apple iPad's to connect. The majority of respondents accessed their social networking site/s at home (50.2%) and on campus (40.1%). A number of social networking sites were used but the results indicated that Facebook (37.3%) was the more popular social networking site used by respondents with YouTube (16.4%), Twitter (11.1%) and Mxit (11%) also widely used.

### 5.2.3 Use of social media

Section B of the questionnaire consisted of ten items with the aim of identifying the respondents' general use of social media. The variables used in this section were as follows:

- Awareness of social networking sites
- Frequency of access
- Reasons for registering on social networking sites
- Reasons for joining social networking sites
- Reasons for using social networking sites
- Information searching

- Registration to NMMU social networking sites
- Registration to faculty, department or unit social networking sites at the NMMU
- Most useful NMMU networking site
- Continued use

Table 5.3 provides the results for Section B of the questionnaire, which outlines the general use of social media.

**TABLE 5.3: RESULTS OF THE GENERAL USE OF SOCIAL MEDIA**

<b>Variable</b>	<b>% response</b>
<b>Awareness of social networking sites:</b>	
Flyers/hand-outs	2.7%
Word of mouth	42.8%
Signage	2.2%
Advertising	14.6%
Television	18.2%
Web pages	17.1%
Friends	0.7%
Radio	0.4%
<b>Frequency of access:</b>	
Logged in all the time	15.4%
More than five times a day	47.7%
Once a day	22.4%
Once or twice a week	12.1%
Once or twice a month	2.4%
<b>Reasons for registering on social networking sites:</b>	
Research	17.5%
Library use/assistance	3.7%
Educational purposes	18.7%
Business purposes	6.5%
Social purposes	51.3%
Cost effective	0.2%
Entertainment	0.3%
Religious groups on Facebook	0.2%
Chatting	0.2%
Music via YouTube	0.2%
Blogs	0.2%
<b>Reasons for joining social networking sites:</b>	
To meet new friends	30.3%
Find a job	4.5%
Make business contacts	6.1%
To find contacts at the University	12.5%

Variable	% response
To be generally sociable	41.8%
Post comments and videos on YouTube	0.1%
Keep in touch with family	1.2%
Admiration	0.4%
Current affairs	0.1%
Dates	0.1%
<b>Reasons for using social networking sites:</b>	
Meeting new friends	19.8%
Entertainment	23.8%
Maintain relationships	17.3%
Searching for friends	14.7%
Social involvement	23.4%
Religious purposes	0.1%
Keeping in touch with partner/family	0.3%
Doing assignments	0.1%
<b>Information searching:</b>	
Yes	84.1%
No	3.9%
Don't know	12%
<b>Registration to NMMU social networking sites:</b>	
Yes	35.3%
No	58.4%
Don't know	6.4%
<b>Registration to faculty, department or unit social networking sites at the NMMU:</b>	
Yes	28.4%
No	64.6%
Don't know	7%
<b>Most useful NMMU networking site:</b>	
NMMU Facebook	28.8%
NMMU Twitter	0.6%
NMMU Faculty, Department or Unit Facebook	9.2%
I do not use any social media sites of the NMMU	38.3%
Cannot comment as I don't use it regularly	23.1%
<b>Continued use:</b>	
Yes	93.6%
No	2.4%
Don't know	3.9%

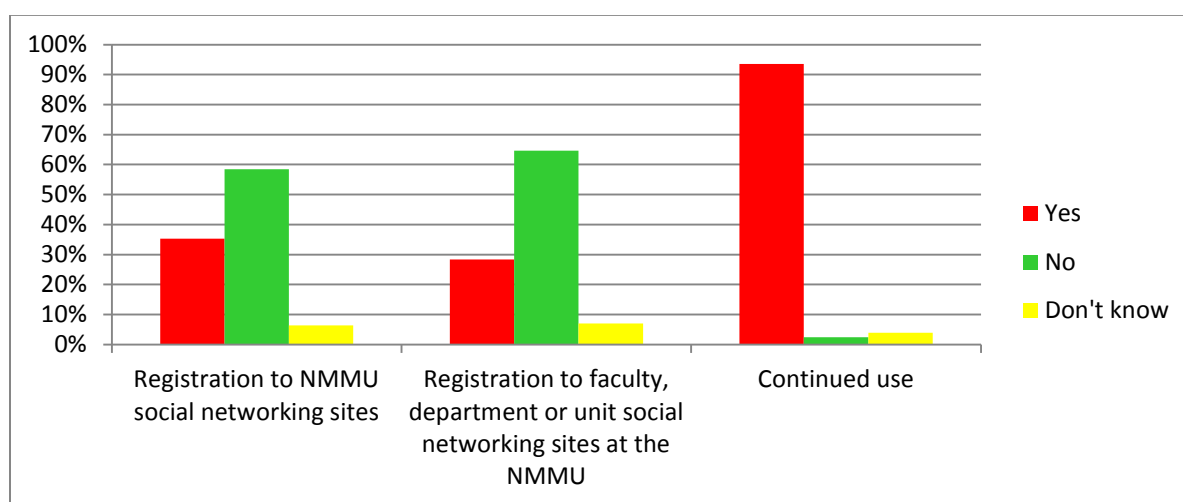
Source: Researcher's own construct

From Table 5.3, it is evident that a large percentage of the respondents became aware of social media by means of word-of-mouth (42.8%). Television (18.2%), web pages (17.1%) and advertising (14.6%) respectively also contributed to respondents becoming

aware of social networking sites. The respondents typically accessed their social networking site/s more than five times a day (47.7%) while a large percentage indicated that they logged in once a day (22.4%). The results also indicated that the main reason for respondents registering and joining (41.8%) social networking sites was for social purposes (51.3%).

The results showed that the respondents used social networking sites for entertainment (23.8%), social involvement (23.4%), meeting new friends (19.8%) and maintaining relationships (17.3%). Although it is evident that social networking was used for information searching (84.1%), more than half (58.4%) of the respondents indicated that they are not registered on any NMMU Social Networking sites of the university. On the other hand, even more (64.6%) indicated that they are not registered on any faculty, department or unit social networking sites at the NMMU. A small percentage of the respondents indicated that NMMU Facebook is a useful NMMU Social Networking site (28.8%) with 38.3% saying they did not use any social media sites of the NMMU. The majority (93.6%) of respondents pointed out that they wished to continue using social networking sites and social media.

Figure 5.1 graphically illustrates the use of NMMU Social Networks



Source: Researcher's own construct

**FIGURE 5.1: USE OF NMMU SOCIAL NETWORKS**

Figure 5.1 illustrates that a greater percentage of responses indicate that students of NMMU are not registered on NMMU Social Networking sites neither on faculty, department or unit Social Networking sites at the NMMU. The majority of the respondents indicated that they would continue using social media and social networking.

#### **5.2.4 Perceptions of social networking in general**

Section C of the questionnaire consisted of 20 items to investigate the respondents' perceptions of social networking in general. Three factors were tested in this section, namely, usage, information exchange and security. Annexure B provides the frequencies obtained from responses for Section C of the questionnaire.

According to the results of Section C of the questionnaire as can be seen in Annexure B, 72% of the responses indicated that social networking could be used for research. The majority (81.4%) of the respondents pointed out that social networking could also be used for connecting with businesses. Social networking was also widely used to meet new friends as the results showed that 69.1% of respondents agreed that they used social networking to meet new friends. A majority of responses indicated that social networking was used for information exchange (58.4%) as well.

Regarding information exchange, the results indicated that finding information was made easier with social networking sites (54.5%). However, social networking sites were time consuming as 67.9% of the respondents agreed to it being time consuming. The results also showed that 72.7% of the respondents felt that social networking sites were a good idea. Of the respondents, 59.3% indicated that social networking sites provided valuable connections for students. The responses further indicated that social networking sites were also important for the respondents' student experiences (51.8%).

In terms of security, 40.7% of the respondents had neutral trust of social networking sites. Respondents did not feel confident of social networking sites' privacy policies as 33.3% indicated neutral in terms of privacy policies.

In addition, descriptive statistics for the factors, namely, usage, information exchange and security for Section C was conducted. Table 5.4 illustrates the results obtained from the descriptive statistical analysis.

**TABLE 5.4: DESCRIPTIVE STATISTICS FOR SECTION C OF THE QUESTIONNAIRE**

<b>Factor</b>	<b>Mean</b>
Section C: Usage	3.46
Section C: Information exchange	3.50
Section C: Security	3.04

Source: Researcher's own construct

Table 5.4 provides the results of the mean values for the dependent factors from Section C of the questionnaire which was used to make a comparison between the means values for Section D of the questionnaire.

### **5.2.5 Perceptions of NMMU social networking**

Section D of the questionnaire comprised of 25 items to determine the respondents' perceptions of NMMU Social Networking. The same variables were tested as was done in Section C of the questionnaire, namely, usage, information exchange and security. Annexure B illustrates the frequency results obtained from respondents for this section.

As can be seen from Annexure B, 55.9% of the responses indicated that NMMU Social Networking was used for research. The responses also indicated that NMMU Social Networking was used somewhat for entertainment (49.4%) as well as connecting with friends (49.2%) and meeting new friends (44.4%).

The respondents indicated that they generally did not use NMMU Social Networking sites for information exchange (43.5%) although 55.3% pointed out that these sites made it easier for them to find information as well as helping them find academic-related information (58.6%). NMMU Social Networking sites also helped students find work-related information (53.8%).

The respondents indicated that they generally trusted NMMU Social Networking sites (47.9%) and they felt that NMMU Social Networking sites did not give their information to other people (47.3%). Although a considerable percentage of respondents did not feel confident that NMMU Social Networking sites friends and contacts were dependable (46.2%).

Furthermore, the majority of respondents agreed that NMMU Social Networking sites were a good idea (71.5%) and that they provided valuable connections (59.6%). Having a NMMU Social Networking profile was important for the respondents' student experience (51.1%). The majority of respondents (61.2%) also pointed out that NMMU Social Networking sites were enjoyable.

In addition, descriptive statistics for the factors, namely, usage, information exchange and security for Section D of the questionnaire was conducted. Table 5.5 illustrates the results obtained from the descriptive statistical analysis.

**TABLE 5.5: DESCRIPTIVE STATISTICS FOR SECTION D OF THE QUESTIONNAIRE**

<b>Factor</b>	<b>Mean</b>
Section D: Usage	3.02
Section D: Information exchange	3.47
Section D: Security	3.38

Source: Researcher's own construct

Table 5.5 provides the results of the mean values for the dependent factors from Section D of the questionnaire which was used to make a comparison between the means values for Section C of the questionnaire with the mean values for Section D of the questionnaire.

Furthermore, a comparison of mean values was conducted for usage, information exchange and security between Section C of the questionnaire and Section D of the questionnaire. Table 5.6 illustrates the contrasting mean values.



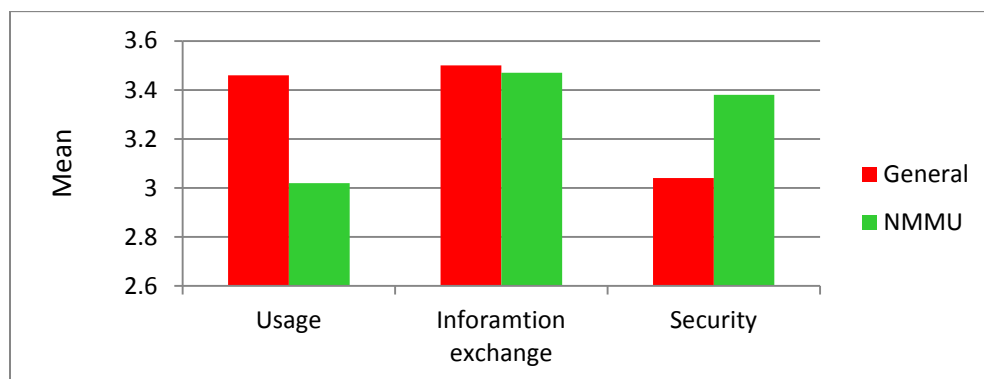
**TABLE 5.6: COMPARISON OF MEAN VALUE FOR SECTION C AND SECTION D OF THE QUESTIONNAIRE**

Factor	Section C mean value (General)	Section D mean value (NMMU)
Usage	3.46	3.02
Information exchange	3.50	3.47
Security	3.04	3.38

Source: Researcher's own construct

Table 5.6 indicates that the mean value for Section C of the questionnaire (General) was greater than that of Section D of the questionnaire (NMMU) in terms of usage. Likewise, the mean value for Section C (General) of the questionnaire was also greater than that of Section D of the questionnaire (NMMU) for information exchange but the difference was very small. However, the mean value for Section D of the questionnaire (NMMU) showed a greater mean value than that of Section C of the questionnaire (General) in terms of security. This means that respondents used social networking in general more than NMMU Social Networking. However, the respondents perceived of NMMU Social Networking sites to be more secure than social networking sites in general.

Figure 5.2 illustrates the comparison of the mean values for Section C of the questionnaire (General) and Section D of the questionnaire (NMMU).



Source: Researcher's own construct

**FIGURE 5.2: COMARISON OF MEAN VALUE FOR SECTION C AND SECTION D OF THE QUESTIONNAIRE**

Figure 5.2 indicates that the mean value for Section C (General) of the questionnaire was greater than that of Section D (NMMU) of the questionnaire for usage. The mean value for Section C (General) was also greater than that of Section D (NMMU) of the questionnaire for information exchange but the difference was minor. However, the mean value for Section C of the questionnaire (General) was greater than that of Section D of the questionnaire (NMMU).

### 5.3 INFERENCE STATISTICAL RESULTS

Data can seldom be gathered from an entire population. Inferential statistics allow a sample from the population to be drawn to make inferences about the characteristics of that population (Struwig & Stead, 2001). It also assists in generalising findings from the sample to the larger population. Inferential statistics are also used to test hypotheses about relationships or variations in a population using the data which has been obtained from the sample. The advanced statistical methods used in this study included an analysis of variance (ANOVA) and t-tests.

An investigation was undertaken to determine if a difference existed between the independent variable, being campus and the factors displayed for perceptions of social networking in general. Table 5.7 summarises the results obtained through an ANOVA.

**TABLE 5.7: ANOVA RESULTS OF PERCEPTIONS OF SOCIAL NETWORKING IN GENERAL FOR CAMPUSES**

Factor	South Campus	Second Avenue Campus	Missionvale Campus	ANOVA	
	M	M	M	p. value	Statistical significant difference
Section C: Usage	3.45	3.45	3.56	0.555	No
Section C: Information exchange	3.58	3.47	3.53	0.559	No
Section C: Security	3.25	3.01	2.86	0.067	No

Statistically significant at 5% level \*( $p < 0.05$ )

Table 5.7 indicates that the independent variables, namely, the campuses the respondents were situated on, had no relationship to the perceptions of social networking in general.

An investigation was also undertaken to determine if a relationship existed between the independent variable, namely, course enrolment and the factors displayed for the perceptions of social networking in general. Table 5.8 summarises the results obtained through an ANOVA.

**TABLE 5.8: ANOVA RESULTS OF PERCEPTIONS OF SOCIAL NETWORKING IN GENERAL FOR COURSE ENROLMENT**

Factor	Degree	Diploma	National Higher Certificate	ANOVA	
	M	M	M	p. value	Statistical significant difference
Section C: Usage	3.39	3.48	3.37	0.468	No
Section C: Information exchange	3.59	3.50	3.19	0.150	No
Section C: Security	3.29	3.01	2.53	0.007	Yes

Statistically significant at 5% level \*( $p < 0.05$ )

Table 5.8 indicates that the independent variables, namely, the course that respondents were enrolled for, had no relationship to the dependent factors in the perceptions of social networking in general, namely, usage and information exchange of NMMU Social Networking. Security did, however, have a relationship with the independent variable of course enrolment as a p-value of 0.007 was displayed.

Furthermore, an investigation was undertaken to determine if a relationship existed between the independent variable, being campus and the factors displayed for perceptions of NMMU Social Networking. Table 5.9 summarises the results obtained through an ANOVA.

**TABLE 5.9: ANOVA RESULTS OF PERCEPTIONS OF NMMU SOCIAL NETWORKING FOR CAMPUSES**

Factor	South Campus	Second Avenue Campus	Missionvale	ANOVA	
	M	M	M	p. value	Statistical significant difference
Section D: Usage	2.83	3.03	3.20	0.199	No
Section D: Information exchange	3.35	3.48	3.64	0.464	No
Section D: Security	3.43	3.37	3.36	0.957	No

Statistically significant at 5% level \*( $p < 0.05$ )

Table 5.9 indicates that the independent variables, namely, the campuses the respondents were situated on, had no relationship to the dependent factors in the perceptions of NMMU Social Networking, namely, usage, information exchange and security of social networking in general.

An investigation was also undertaken to determine if a relationship existed between the independent variable, being course enrolment and the factors displayed for the perceptions of NMMU Social Networking. Table 5.10 summarises the results obtained through an ANOVA.

**TABLE 5.10: ANOVA RESULTS OF PERCEPTIONS OF NMMU SOCIAL NETWORKING FOR COURSE ENROLMENT**

Factor	Degree	Diploma	National Higher Certificate	ANOVA	
	M	M	M	p. value	Statistical significant difference
Section D: Usage	2.76	3.06	2.97	0.218	No
Section D: Information exchange	3.20	3.51	3.50	0.239	No
Section D: Security	3.50	3.36	3.50	0.794	No

Statistically significant at 5% level \*( $p < 0.05$ )

Table 5.10 indicates that the independent variables, namely, the course that respondents were enrolled for, had no relationship to the dependent factors in the perception of NMMU Social Networking, namely, usage, information exchange and security of NMMU Social Networking.

In addition, an analysis was conducted to determine if relationships existed among the different age groups obtained from the sample and the factors from the perceptions of social networking in general. Table 5.11 summarises the results obtained through a t-test.

**TABLE 5.11: RELATIONSHIP BETWEEN FACTORS FROM PERCEPTIONS OF SOCIAL NETWORKING IN GENERAL AND INDEPENDENT VARIABLE OF AGE**

Factor	Independent variable	p. value	Statistical significant difference
Section C: Usage	Age (17 – 21 and >21)	0.0329	Yes
Section C: Information exchange	Age (17 – 21 and >21)	0.1896	No
Section C: Security	Age (17 – 21 and >21)	0.0111	Yes

Statistically significant at 5% level \*( $p < 0.05$ )

Table 5.11 indicates that there were two factors, namely, usage and security that had a relationship with the independent variable age as the p-value's reflected 0.0329 and 0.0111 respectively.

Furthermore, an analysis was conducted to determine if relationships existed among the gender groups of the sample and the factors from the perceptions of social networking in general. Table 5.12 summarises the results obtained through a t-test.

**TABLE 5.12: RELATIONSHIP BETWEEN FACTORS FROM PERCEPTIONS OF SOCIAL NETWORKING IN GENERAL AND INDEPENDENT VARIABLE OF GENDER**

Factor	Independent variable	p. value	Statistical significant difference
Section C: Usage	Gender (Male and Female)	0.8845	No
Section C: Information exchange	Gender (Male and Female)	0.9602	No
Section C: Security	Gender (Male and Female)	0.2831	No

Statistically significant at 5% level \*( $p < 0.05$ )

Table 5.12 indicates that there were no relationships between the factors in the perceptions of social networking in general and the independent variable, namely, gender.

An analysis was also conducted to determine if relationships existed among the different age groups obtained from the sample and the factors from the perceptions of NMMU Social Networking. Table 5.13 provides a summary of the results obtained through a t-test.

**TABLE 5.13: RELATIONSHIP BETWEEN FACTORS FROM PERCEPTIONS OF NMMU SOCIAL NETWORKING AND INDEPENDENT VARIABLE OF AGE**

Factor	Independent variable	p. value	Statistical significant difference
Section D: Usage	Age (17 – 21 and >21)	0.2013	No
Section D: Information exchange	Age (17 – 21 and >21)	0.9464	No
Section D: Security	Age (17 – 21 and >21)	0.6004	No

Statistically significant at 5% level \*( $p < 0.05$ )

The results in table 5.13 indicate that none of the factors from the perceptions of NMMU Social Networking that were displayed were statistically significant and, therefore, had no relationship with the independent variable from the sample.

An analysis was conducted to determine if relationships existed among the gender groups of the sample and the factors from the perceptions of NMMU Social Networking. Table 5.14 provides a summary of the results obtained through a t-test.

**TABLE 5.14: RELATIONSHIP BETWEEN FACTORS FROM PERCEPTIONS OF NMMU SOCIAL NETWORKING AND INDEPENDENT VARIABLE OF GENDER**

Factor	Independent variable	p. value	Statistical significant difference
Section D: Usage	Gender (Male and Female)	0.3874	No
Section D: Information exchange	Gender (Male and Female)	0.3643	No
Section D: Security	Gender (Male and Female)	0.3926	No

Statistically significant at 5% level  $*(p < 0.05)$

Table 5.14 indicates that there were no relationships between the factors usage, information exchange and security from the perceptions of NMMU Social Networking and the independent variable, namely, gender.

## 5.4 SUMMARY

Chapter 5 discussed the results obtained from the quantitative analysis of the sample of this study. The results of the statistical analysis which comprises of two sections, firstly, a discussion of the descriptive statistics used to analyse the data, and secondly, the inferential statistics were performed. The descriptive and inferential statistics that were performed of the sample included an analysis of the usage, information exchange and security of social networking and social media.

It was found that the majority of the sample was in the age group 17 – 21 years with a large percentage of respondents being female. The sample mainly consisted of students situated on Second Avenue Campus and enrolled for Diploma courses. Close to the entire sample was found to be registered (99.4%) on social networking sites and social media.

From the results of the ANOVA, it was established that the independent variables, namely, campus and course enrolment, had no relationship with the dependent factors usage, information exchange and security with the exception of the independent variable course enrolment and the factor security for the perceptions of social networking in general which displays a p-value of 0.007. There were thus no statistical significant differences between the independent variables, namely, campus and course enrolment, and the dependent factors usage, information exchange and security with the exception of course enrolment and security for the perceptions of social networking in general.

The results of the more advanced inferential statistics, namely, the t-tests, indicated that there were no relationships between the dependent factors, namely, usage and information exchange, and the independent variable age. However, there was a relationship between the factor security and the independent variable age which reflected a p-value of 0.0111. Furthermore, there were no relationships between the independent variables, namely, age and gender, and the factors usage, information exchange, and security for the perceptions of NMMU Social Networking. There were thus no statistical significant differences between the independent variables, namely, age and gender, and the dependent factors usage, information exchange and security.

A summary and conclusion of the investigation into the social network use of students are presented in chapter 6 as well as recommendations, based on both the literature and empirical findings



## **CHAPTER SIX**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 INTRODUCTION**

Chapter 6 provides a brief summary of each chapter, followed by appropriate conclusions and recommendations. Thereafter, the limitations of the study as well as suggestions for further research are discussed. The chapter concludes with a section discussing how this study answered the research questions which were developed in chapter 1.

#### **6.2 REVIEW OF CHAPTERS**

The following section presents a review of each chapter included in the study, ranging from chapters 1 to 5.

##### **6.2.1 Chapter 1**

Chapter 1 provided the background to the study, the problem statement and the primary and secondary objectives of the study as well as a conceptual framework for the study. Furthermore, this chapter provided an overview of the research design and methodology which was used to obtain the empirical data for the study. Concluding this chapter was the scope for the study and an outline of the forthcoming chapters.

The problem statement came about as a result of there not being much research conducted on social media use of students. As students form such an important market segment, the question could be posed as to which social media students were using and for what purpose they were used? Therefore, the primary objective of this research was to investigate the use of social media by NMMU students to establish the purposes for students engaging in social media.

To give effect to the primary objective of this study, the following secondary objectives were formulated (See Section 1.5.2):

- To conduct a literature review on how and which social media is used by higher education and how and which social media is used by businesses
- To select an appropriate research methodology and research design for the study
- To develop a research instrument and draw a sample
- To collect and analyse primary data
- Determining social media preferences of students at the NMMU
- Identifying various purposes for students' use of social media
- Developing guidelines on why students use social media so that different groups will benefit from it
- To provide pertinent conclusions and recommendations based on the findings

### 6.2.2 Chapter 2

Chapter 2 provided a literature overview of social networks and students. This chapter presented various definitions and concepts of social media used in the study. A historical overview of social media and social networking platforms after which the focal point of the chapter was on the five types of social networking platforms identified, namely, Facebook, Twitter, MySpace, YouTube and LinkedIn, each having distinct functions and characteristics. A discussion was then presented on the importance of social media and social networking followed by an identification of the members of social networking and their characteristics. Furthermore, the chapter focused on social media and library services at higher education institutions, educational use of social media as well as business use of social media.

This literature study revealed that 93% of students were of the *net generation*, and many social media and social networking sites were available to students, individuals and organisations for various purposes.

The five types of social networking platforms identified having distinct functions and create copious opportunities for improved educational experiences for students which include enhanced library services. This is due to the large amounts of information that are posted or uploaded on these social networking platforms. The information can be uploaded in different formats from audio, visual-audio (videos), and text and allows for commenting, discussion or feedback related to the topic.

This chapter concluded with the different member types identified and their characteristics which allowed designers and administrators of social networking sites to cater for the needs of the different users. Businesses used social media to engage with potential customers, customers and clients to create a perception of value for the stakeholders of the business. Social media was also used as an educational tool in businesses to assist new recruits, who in most cases were students who had just graduated to be inducted into the business. It also assisted postgraduate students with employability, career management and making business connections.

### **6.2.3 Chapter 3**

Chapter 3 presented previous research related to social media and social networking in general as well as a number of studies relating to social media and library services in higher education institutions, educational use, and business use of social networking and social media were identified and distinguished according to year of study starting from older studies to the most recent. Subsequently, research on perceptions of social media were identified and discussed. Concluding this chapter was the formulation of a framework for the study.

It is evident that from the research that has been conducted on the topic of social media and social networking that not much has been done on social networks and students.

The studies identified in this chapter focused on topics like computer usage of students, motivations why student engaged in social networking and sociability on the social web.

Some studies also considered how social media and social networking sites could be used by libraries and libraries to become more visible within these environments. A number of studies dealt with educational uses of social media and considered how it could be used to engage with students as well as students' utilisation of it for educational purposes. The studies also identified that there were a range of business uses for social media. Organisations should encourage social networks and in so doing enhance knowledge management and e-learning as well as the prospect of career development through social media and social networking in the form of professional sites.

The research on perceptions of social media that were identified gave some insight on what factors were previously focused on which assisted with the formulation of the framework for this study and the questionnaire design for this study.

#### **6.2.4 Chapter 4**

Chapter 4 presented the main methods and techniques that were used in this study to obtain the data from which the findings were presented in chapter 5. The chapter discussed the research design which included sampling design, questionnaire design, data collection and validity and reliability of the measurement instruments. The chapter concluded with data editing and analysis.

Research design revealed that two types of sampling methods could be used to draw samples of which non-probability sampling was chosen for this study. This method was most appropriate as students were invited to participate in the research by completing a survey questionnaire at the end of their lectures. Students (n=334) from the NMMU that were registered in 2011 were asked to participate in the study.

The questionnaire included four sections that focused on general usage of social media by students at the NMMU, their perceptions of social networking in general and, lastly, their perceptions of NMMU Social Networking was.

The questionnaire used in the study used a number of different types of questions, namely, multiple-choice questions, dichotomous questions and scaled-response questions. Section A consisted of nine items establishing the biographical data of respondents and used multiple-choice questions, short open-ended questions, closed questions and dichotomous questions, to obtain this data. Ten items made up Section B and used multiple-choice questions, as well as closed and open-ended questions. This data would be used to identify trends in the usage of social media and social networks. Sections C and D of the questionnaire used a five point Likert-type scale questions with 5 representing strongly agree to 1 being strongly disagree. Section C consisted of 20 items and aims to gain insight into the perceptions of social networking in general, while Section D consisted of 25 items and focused on perceptions of NMMU social networking. Both Sections C and D would be used to analyse factors of usage, information exchange and security.

A quantitative approach was used in this study as a large sample was required to investigate student's use of social media and social networks using a survey questionnaire. This was the most appropriate approach as it was less costly and time consuming. A pilot study was conducted whereby a small sample of social media and social networking users were asked to complete the question and give their feedback of the questionnaire to ensure validity and reliability. Furthermore, reliability was determined for the final questionnaire by calculating Cronbach Alphas. Validity was ensured by content validity as experts commented on the questionnaire.

Before data could be used in this research study, it needed to be edited. The data that resulted from the coded information after which it was conveyed into Excel spreadsheets was edited. This was done by a statistical consultant who ensured the accurate transference from the coded information to the spreadsheets.

### 6.2.5 Chapter 5

Chapter 5 presented the results that were obtained from the quantitative analysis of the sample of this study. The results of the statistical analysis comprised of two sections, firstly, the descriptive statistics used to analyse the data were presented, and secondly, the inferential statistics that were performed. The descriptive and inferential statistics that were performed of the sample included an analysis of the usage, information exchange and security of social networking and social media.

#### ***a) Descriptive statistical results***

It was found that 87.1% of the sample was between the ages of 17 and 21 with 67.2% of the respondents being female. Of the sample, 65.2% were situated at Second Avenue Campus and 76.3% registered for Diploma courses. Of the sample, 99.4% were registered on a social networking site/s and connected via their cellular phones (55.3%). A percentage of 58.4% of the sample indicated that they were not registered on any NMMU Social Networking sites of the university. In addition, 64.6% indicated that they were not registered on any faculty, department or unit social networking sites at the NMMU. The majority of the sample (93.6%) pointed out that they wished to continue using social networking sites and social media. Furthermore, a descriptive statistical analysis was conducted to determine mean values for the dependent factors, namely, usage, information exchange and security for Sections C and D of the questionnaire. The results indicated that the mean value for Section C of the questionnaire was greater than that of Section D of the questionnaire in terms of usage. Likewise, the mean value for Section C of the questionnaire was also greater than that of Section D of the questionnaire for information exchange but the difference was very small. However, the mean value for Section D of the questionnaire displayed a greater mean value than that of Section C of the questionnaire in terms of security.

### ***b) Inferential statistical results***

An investigation was undertaken to determine if a relationship existed between the independent variables, namely, campus and course enrolment, and the dependent factors, namely, usage, information exchange and security. From the results of the ANOVA, it was found that the independent variables had no relationship with the dependent factors with the exception of the independent variable course enrolment and the factor security for the perceptions of social networking in general which reflected a p-value of 0.007. There were thus no statistical significant differences between the independent variables, namely, campus and course enrolment and the dependent factors usage, information exchange and security with the exception of course enrolment and security for the perceptions of social networking in general.

Investigations were also conducted to determine if relationships existed among the age and gender groups obtained from the sample and the factors from Sections C and D of the questionnaire. These results were obtained through t-tests, which indicated that there were no relationships between the independent variables, namely, usage and information exchange, and the dependent factor age. However, there was a relationship between the factor security and the independent variable age which reflected a p-value of 0.0111. Furthermore, there were no relationships between the independent variables, namely, age and gender, and the factors for the perceptions of NMMU Social Networking. There were thus no statistical significant differences between the independent variables, namely, age and gender, and the dependent factors, namely, usage, information exchange and security.

## **6.3 CONCLUSIONS AND RECOMMENDATIONS**

From the statistical analysis of the sample, it is evident that the majority of the sample were between the ages of 17 and 21 and made up mainly of females. The majority of the sample became aware of social media by means of word-of-mouth while television, web pages and advertising also contributed to sample becoming aware of social networking

sites. The sample typically accessed their social networking site/s more than five times a day. The main reason for the sample registering and joining social networking sites was for social purposes. The sample used social networking sites for entertainment, social involvement, meeting new friends and maintaining relationships. Social networking made information searching easier as the majority of the sample agreed to this. More than half of the sample who are students at the NMMU indicated that they are not registered on any NMMU Social Networking sites of the university and even more indicated that they were not registered on any faculty, department or unit social networking sites at the NMMU. A small percentage of the sample indicated that NMMU Facebook was a useful NMMU Social Networking site. It was evident that the majority of students was registered on social networking sites of some sort and would continue to use social networking and social media.

From the results of the ANOVA, it was found that the independent variables, namely, usage and information exchange had no relationship with the dependent factors with the exception of the independent variable course enrolment and the factor security for the perceptions of social networking in general which reflected a p-value of 0.007. The results of the t-tests indicated that there were no relationships between the independent variables, namely, usage and information exchange, and the dependent factor age. However, there was a relationship between the factor security and the independent variable age which reflected a p-value of 0.0111. Furthermore, there were no relationships between the independent variables and the factors for the perceptions of NMMU Social Networking.

Table 6.1 provides a summary of the relationships between the independent variables, namely, age, gender, campus and course enrolment, and the dependent factors, namely, usage, information exchange and security for Section C of the questionnaire (perceptions of social networking in general).



**TABLE 6.1: SUMMARY OF RELATIONSHIPS BETWEEN THE INDEPENDENT VARIABLES AND THE DEPENDENT FACTORS FOR PERCEPTIONS OF SOCIAL NETWORKING IN GENERAL**

Independent variable	Dependent factor	Relationship
Age	Usage Information exchange Security	Yes No Yes
Gender	Usage Information exchange Security	No No No
Campus	Usage Information exchange Security	No No No
Course enrolment	Usage Information exchange Security	No No Yes

Source: Researcher's own construct

From Table 6.1, it is evident that relationships existed between the independent variable age and the dependent factors usage and security. No relationship existed between the independent variables gender, campus and course enrolment and the dependent factors, namely, usage, information exchange and security with the exception of the relationship between course enrolment and security.

Table 6.2 provides a summary of the relationships between the independent variables, namely, age, gender, campus and course enrolment, and the dependent factors, namely, usage, information exchange and security for Section D of the questionnaire (perceptions of NMMU Social Networking).

**TABLE 6.2: SUMMARY OF RELATIONSHIPS BETWEEN THE INDEPENDENT VARIABLES AND THE DEPENDENT FACTORS FOR PERCEPTIONS OF NMMU SOCIAL NETWORKING**

Independent variable	Dependent factor	Relationship
Age	Usage Information exchange Security	No No No
Gender	Usage Information exchange Security	No No No

Independent variable	Dependent factor	Relationship
Campus	Usage Information exchange Security	No No No
Course enrolment	Usage Information exchange Security	No No No

Source: Researcher's own construct

As can be seen from Table 6.2, no relationships existed between the independent variables, namely, age, gender, campus and course enrolment and the dependent factors, namely, usage, information exchange and security.

Considering the ways in which universities could share information with students and the students use of social media, it is evident that social media can enhance and make their learning experiences easier and convenient. Businesses could also use social media and social networking, with which graduates were familiar, to make their first time working experiences more collaborative and informed. Furthermore, it was established how students used social networking and social media and how they accessed information, libraries could become an important source of information technologically. More specifically, the NMMU should make their social networking sites more apparent and visible to students. This could foster better learning experiences and engagement with NMMU students.

## 6.4 RESEARCH QUESTIONS ANSWERED AND PRIMARY OBJECTIVES MET

The following section outlines how the research questions were answered as well as the primary objectives met.

### 6.4.1 Research questions which were identified and answered in the study

- a) Which social networking sites can students register for and actively engage in?

The answer to this question could be closely related to the next question in that the following social networking sites, according to the results, seemed to be most popular and most widely used sites respectively:

- Facebook
- YouTube
- Twitter
- Mxit

b) What is the most popular social networking site among students?

A number of social networking sites were used but the results indicated that Facebook was the more popular social networking site currently used by the sample with 37.3% followed by YouTube with 16.4%, Twitter with 11.1% and Mxit with 11%.

c) How often do students engage in social media?

The results of this study revealed that students typically accessed their social networking site/s more than five times a day (47.7%) while a large percentage indicated that they logged in once a day (22.4%).

d) What is the main purpose why students engage in social media?

The results of this study indicated that the main reason for students registering (51.3%) and joining (41.8%) social networking sites was for social purposes. However, only 35.3% of the respondents indicated registration on NMMU Social Networking sites.

e) How do students gain access to social media?

Students indicated that they connected and accessed to social networking sites via their cellular phones (55.3%) with 22.7% also using their Apple iPad's to connect.

f) Can social media be used for educational purposes?

This question was answered by the literature overview of the educational uses of social media. Social networking applications shared many of the qualities of good education technologies, for example, permitting peer feedback and matching the social contexts of learning (Mason, 2006). The conversational, collaborative and communal qualities of social networking services are collaborative and encourage active participatory roles for users (Maloney, 2007). Social networking sites such as MySpace and Facebook have also shown that students invest time in building relationships around shared interests and knowledge communities. This has convinced educationalists to include social networking to the conventional interaction and dialogue between students and educators.

g) Can social media be used for business purposes?

From the literature overview, previously, the goal of online marketing campaigns was to get the customers attention and browse through the company's website, but the aim has changed to become one of creating sustained engagement with the customer (Harris & Rae, 2009).

From Strategic Direction (2009), business leaders may understand that social networking tools can be used to:

- enable speedier location, access and sharing of information
- enable more efficient control of contacts and knowledge
- help retain key employees by improving satisfaction in the workplace
- break down time and geographical boundaries to improve communication between widely dispersed personnel
- reduce expenses
- improve productivity and competitiveness

h) Do students use social media to collaborate with peers and lecturers?

The results of this study indicated that 58.4% of the sample was not registered on any NMMU Social Networking sites of the university. Furthermore, 64.6% indicated that they were not registered on any faculty, department or unit social networking sites at the NMMU. This answers the question in that students do not use NMMU Social Networking thus not utilising the interface with peers and lecturers. As have been mention previously as well, students used social networking more for social purposes.

i) Do students use social media to make buying decisions?

The results of the study indicated that 47.3% of the sample used social networking for business purposes. This could mean that students generally used social networking to research products to make buying decision. Furthermore, only 6.1% of the sample indicated that they used social networking to build up business contacts.

#### **6.4.2 Primary objective which was identified and met by the study**

The primary objective of this research was to investigate the use of social media by NMMU students to establish the purposes for students engaging in social media. This study has in fact investigated the characteristics and uses for social media and social networks and in particular how students at the NMMU used social media. The primary objective was achieved by:

- Conducting a literature overview by searching the data bases of EBSCOHOST and EMERALD to source research conducted internationally related to social media and social networks. Searching the data base of NEXUS to identify any studies conducted in South Africa related to social media and social networks.
- Conducting research using references and studies conducted between the periods 2003 – 2011.

- Analysing the data collected through a survey questionnaire to determine various uses and perceptions of social media and social networks by students of the NMMU.

From the literature review, it was found that there were various business, educational and library uses of social media. The research questions formulated in chapter 1 has consequently been answered through the analysis of the data collected. It has been found that students primarily use social media and social networking for social purposes, although it was established that it is also widely used for information searching.

## **6.5 LIMITATIONS OF THE STUDY AND SUGGESTIONS FOR FUTURE RESEARCH**

The main limitation of the study was that first and foremost the research conducted on this topic was restricted to the years 2003 – 2011 as it is thought that there would not be many publications before this time period as social networking and social media have only become apparent and popular during this period. Social networking websites started emerging in 2002 with the idea to develop ties between individuals as “friends”, with early examples of such sites being Friendster, Tribe, Flickr, Facebook and LinkedIn (Downes, 2005).

Secondly, it was apparent that there was not much published research in South Africa regarding the subject of social networking and university students’ use thereof. This made it very difficult to develop a tool that could accurately measure significant factors relating to students use of social networking and social media at NMMU. This also resulted in much of the information which was obtained originating from the Internet and computer-generated sources. The research was, therefore, restricted to the search engines of EBSCOHOST, EMERALD and NEXUS.

Lastly, the pilot study which was an online questionnaire was found not to be very responsive and hence took some time to obtain feedback from the respondents.

This delay in feedback resulted in the decision to conduct a manual questionnaire in which immediate data could be obtained from the sample. This meant that a manual questionnaire had to be constructed and sent for printing which was more time consuming. Furthermore, the data was captured manually onto an Excel spreadsheet which was also time consuming.

Considering these limitations, there are many aspects that have not been investigated and that could warrant further research into social networking and social media in South African universities. These include:

- More comprehensive quantitative studies need to be undertaken where researchers can interview, students, lecturers and librarians to establish ways in which all these users can mutually benefit from the use and engagement through social networking and social media.
- Research could be conducted to determine ways in which universities in South Africa could become more visible and apparent to students of their students.
- Studies could also be conducted to determine ways in which social networking and social media can be used for educational and information exchange purposes and at the same time be generally sociable as this is the main reason for students' use of social networking and social media.

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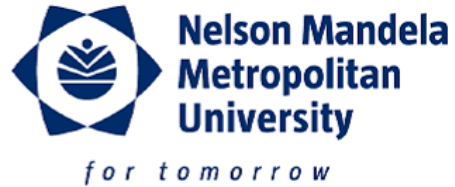
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**ANNEXURE A: QUESTIONNAIRE USED IN THIS STUDY**

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**This study investigates how students use social media and what the main purpose is for their engagement in social media. Social networking has created new ways to communicate and share information. It is important to understand social networking as a communication mechanism.**

**IF YOU DO NOT USE SOCIAL MEDIA AND SOCIAL NETWORKS PLEASE DO NOT PARTICIPATE IN THE SURVEY AND HAND BACK YOUR QUESTIONNAIRE**

**SECTION A: BIOGRAPHICAL DATA**

- 1. Please indicate your response to the questions in this section by placing an “X” in the appropriate box.**

**1.1 Age**

17 – 21	1
22 – 25	2
26 – 30	3
Older	4



## 1.2 Gender

Male	1
Female	2

## 1.3 What campus are you situated on?

.....

.....

## 1.4 Course enrolment

Degree	1
Diploma	2
Post Graduate Studies	3
Occasional student	4
Other, please specify	5

## 1.5 What qualification are you registered for?

.....

.....

## 1.6 Are you registered on a social networking site/s

yes	no
-----	----

## 1.7 Preferred connection to social networking site/s

Cellular phone	1
Desktop computer	2
Laptop	3
Other, please specify	

.....

.....

1.8 I access my social networking site/s at: **(Please indicate all options that apply)**

Home	1
Campus	2
Work	3
Other <b>(Please specify)</b>	4

.....

.....

1.9 Which of the following social networking site/s do you currently use? **(Please indicate all options that apply)**

Facebook	1
Twitter	2
MySpace	3
YouTube	4
LinkedIn	5
Other <b>(Please specify)</b>	6

.....

.....

## SECTION B: GENERAL USE OF SOCIAL MEDIA

2.1 I became aware of social networking site by: **(Please indicate all options that apply)**

Flyers/hand-outs	1
Word of mouth	2
Signage	3
Advertising	4
Television	5
Web pages	6

Other ( <b>Please specify</b> )	7
---------------------------------	---

.....

.....

2.2 How often do you log onto your social networking site/s?

I am logged in all the time	1
I log in more than five times a day	2
I log in once a day	3
I log in once or twice a week	4
I log in once or twice a month	5

2.3 I am registered on social networking sites for the following reason(s): (**Please indicate all options that apply**)

Research	1
Library use/assistance	2
Educational purposes	3
Business purposes	4
Social purposes	5
Other ( <b>Please specify</b> )	6

.....

.....

2.4 I joined social networking sites for the following reason(s): (**Please indicate all options that apply**)

To meet new friends	1
Find a job	2
Make business contacts	3

To find contacts at the University	4
To be generally sociable	5
Other ( <b>Please specify</b> )	6

.....

.....

2.5 I have used social networking for the following: (**Please indicate all options that apply**)

Meeting new friends	1
Entertainment	2
Maintaining relationships	3
Searching for friends	4
Social involvement	5
Other ( <b>Please specify</b> )	6

.....

.....

2.6 Social networking sites makes information searching easier

Yes	1
No	2
Don't know	3

2.7 I am registered user of a social networking site of the NMMU (example, NMMU Facebook, NMMU Twitter)

Yes	1
No	2
Don't know	3

2.8 I am registered user of a social networking site of a faculty, department or unit at the NMMU

Yes	1
No	2
Don't know	3

2.9 The most useful networking site at the NMMU is:

NMMU Facebook	1
NMMU Twitter	2
NMMU Faculty, Department or Unit Facebook	3
NMMU Faculty, Department or Unit Twitter	4
I do not use any social media sites of the NMMU	5
Cannot comment as I don't use it regularly	6

2.10 Do you wish to continue using social media and social networking sites in general?

Yes	1
No	2
Don't know	3

## SECTION C

### PERCEPTIONS OF SOCIAL NETWORKING IN GENERAL

Please indicate with an "X" the extent to which you agree to the given statements in the following table. Note that (1) represents "strongly disagree", (2) "disagree", (3) "neutral", (4) "agree" and (5) "strongly agree". There are no correct or incorrect answers.

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1	I know what microblogging is (Twitter)	1	2	3	4	5
3.2	Social networking sites can be used for connecting with lecturers	1	2	3	4	5
3.3	Social networking sites can be used for research	1	2	3	4	5
3.4	Social networking sites can be used for connecting with businesses	1	2	3	4	5
3.5	I use social media to do research	1	2	3	4	5
3.6	I use social media to get involved in groups, discussions and forums on my academic work	1	2	3	4	5
3.7	I use social networking to create events	1	2	3	4	5
3.8	I use social media to meet new friends	1	2	3	4	5
3.9	I seek advice via social networking	1	2	3	4	5
3.10	I use social networking for information exchange	1	2	3	4	5
3.11	I trust social networking sites in general	1	2	3	4	5
3.12	I believe in social networking sites' privacy policies	1	2	3	4	5
3.13	Social networking sites make it easier for me to find information	1	2	3	4	5
3.14	Social networking sites can help me find academic-related information	1	2	3	4	5
3.15	Social networking sites can help me find work-related information	1	2	3	4	5
3.16	Using social networking sites are costly	1	2	3	4	5
3.17	Social networking sites are time consuming	1	2	3	4	5
3.18	Using social networking sites is a good idea	1	2	3	4	5
3.19	Social networking sites connections are valuable	1	2	3	4	5
3.20	Having a social networking profile has been	1	2	3	4	5

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	important for my student experience					

## SECTION D

### **IF YOU HAVE NOT USED THE NMMU NETWORKING SITES, PLEASE DO NOT COMPLETE THIS SECTION**

#### PERCEPTIONS OF NMMU SOCIAL NETWORKING

Please indicate with an “X” the extent to which you agree to the given statements in the following table. Note that (1) represents “strongly disagree”, (2) “disagree”, (3) “neutral”, (4) “agree” and (5) “strongly agree”. There are no correct or incorrect answers.

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4.1	I use NMMU social networking sites to connect with friends	1	2	3	4	5
4.2	I use NMMU social networking sites to connect with lecturers	1	2	3	4	5
4.3	I use NMMU social networking sites for research	1	2	3	4	5
4.4	I use NMMU Social networking sites to connect with businesses	1	2	3	4	5
4.5	I use NMMU Social networking sites for entertainment.	1	2	3	4	5
4.6	I use NMMU social media to get involved in groups, discussions and forums on my academic work	1	2	3	4	5

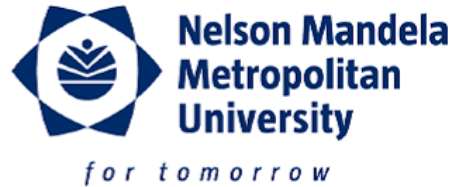
No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4.7	I use NMMU social networking to create events	1	2	3	4	5
4.8	I use NMMU social media to meet new friends	1	2	3	4	5
4.9	I seek advice via NMMU social networking	1	2	3	4	5
4.10	I use NMMU social networking for information exchange	1	2	3	4	5
4.11	I trust the NMMU social networking sites	1	2	3	4	5
4.12	I believe NMMU social networking sites do not give my information to other people.	1	2	3	4	5
4.13	I believe my NMMU social networking sites friends and contacts are dependable	1	2	3	4	5
4.14	NMMU social networking sites make it easier for me to find information	1	2	3	4	5
4.15	NMMU social networking sites help me find academic-related information	1	2	3	4	5
4.16	NMMU social networking sites help me find work-related information	1	2	3	4	5
4.17	Using NMMU social networking sites are costly	1	2	3	4	5
4.18	NMMU social networking sites are time consuming	1	2	3	4	5
4.19	Using NMMU social networking sites is a good idea	1	2	3	4	5
4.20	NMMU social networking sites connections are valuable	1	2	3	4	5
4.21	Having a NMMU social networking profile has been important for my student experience	1	2	3	4	5
4.22	By using the NMMU social networking sites, I have become more connected to students at the	1	2	3	4	5



No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Nelson Mandela Metropolitan University					
4.23	By using the NMMU social networking sites, I have become more connected to lecturers at the Nelson Mandela Metropolitan University	1	2	3	4	5
4.24	Through NMMU social networking I have become more aware of library services at the Nelson Mandela Metropolitan University	1	2	3	4	5
4.25	Using the NMMU social networking sites is enjoyable	1	2	3	4	5

**THANK YOU FOR YOUR TIME AND COOPERATION**

## ANNEXURE B: FREQUENCIES OF THE RESPONSES TO THE QUESTIONNAIRE



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This study investigates how students use social media and what the main purpose is for their engagement in social media. Social networking has created new ways to communicate and share information. It is important to understand social networking as a communication mechanism.

**IF YOU DO NOT USE SOCIAL MEDIA AND SOCIAL NETWORKS PLEASE DO NOT PARTICIPATE IN THE SURVEY AND HAND BACK YOUR QUESTIONNAIRE**

### SECTION A: BIOGRAPHICAL DATA

1. Please indicate your response to the questions in this section by placing an “X” in the appropriate box.

1.1 Age

17 – 21	87.1%
22 – 25	9.3%
26 – 30	2.1%

Older	1.5%
-------	------

## 1.2 Gender

Male	32.8%
Female	67.2%

## 1.3 What campus are you situated on?

South Campus = 20.7%; Second Avenue Campus = 65.2%; Missionvale Campus = 13.5%; and North Campus = 0.6%

## 1.4 Course enrolment

Degree	18.3%
Diploma	76.3%
Post Graduate Studies	0%
Occasional student	0%
Other, please specify	5.4%

## 1.5 What qualification are you registered for?

.....  
 .....

## 1.6 Are you registered on a social networking site/s

Yes =	No =
99.4%	0.6%

## 1.7 Preferred connection to social networking site/s

Cellular phone	55.3%
Desktop computer	12.7%
Laptop	9.4%
Other, please specify	22.7%

.....

.....

1.8 I access my social networking site/s at: **(Please indicate all options that apply)**

Home	50.2%
Campus	40.1%
Work	2.5%
Other <b>(Please specify)</b>	3.6%

.....

.....

1.9 Which of the following social networking site/s do you currently use? **(Please indicate all options that apply)**

Facebook	37.3%
Twitter	11.1%
MySpace	2.2%
YouTube	16.4%
LinkedIn	1.7%
Other <b>(Please specify)</b>	12.7%

.....

.....

## SECTION B: GENERAL USE OF SOCIAL MEDIA

2.1 I became aware of social networking site by: **(Please indicate all options that apply)**

Flyers/hand-outs	2.7%
Word of mouth	42.8%
Signage	2.2%
Advertising	14.6%
Television	18.2%
Web pages	17.1%
Other <b>(Please specify)</b>	1.2%

.....  
 .....

2.2 How often do you log onto your social networking site/s?

I am logged in all the time	15.4%
I log in more than five times a day	47.7%
I log in once a day	22.4%
I log in once or twice a week	12.1%
I log in once or twice a month	2.4%

2.3 I am registered on social networking sites for the following reason(s): **(Please indicate all options that apply)**

Research	17.5%
Library use/assistance	3.7%
Educational purposes	18.7%
Business purposes	6.5%
Social purposes	51.3%
Other <b>(Please specify)</b>	1.2%

.....

.....

2.4 I joined social networking sites for the following reason(s): **(Please indicate all options that apply)**

To meet new friends	30.3%
Find a job	4.5%
Make business contacts	6.1%
To find contacts at the University	12.5%
To be generally sociable	41.8%
Other <b>(Please specify)</b>	2.6%

.....

.....

2.5 I have used social networking for the following: **(Please indicate all options that apply)**

Meeting new friends	19.8%
Entertainment	23.8%

Maintaining relationships	17.3%
Searching for friends	14.7%
Social involvement	23.4%
Other ( <b>Please specify</b> )	0.4%

.....

.....

## 2.6 Social networking sites makes information searching easier

Yes	84.1%
No	3.9%
Don't know	12.0%

## 2.7 I am registered user of a social networking site of the NMMU (example, NMMU Facebook, NMMU Twitter)

Yes	35.3%
No	58.4%
Don't know	6.4%

## 2.8 I am registered user of a social networking site of a faculty, department or unit at the NMMU

Yes	28.4%
No	64.6%
Don't know	7.0%

## 2.9 The most useful networking site at the NMMU is:

NMMU Facebook	28.8%
NMMU Twitter	0.6%
NMMU Faculty, Department or Unit Facebook	9.2%
NMMU Faculty, Department or Unit Twitter	0%

I do not use any social media sites of the NMMU	38.3%
Cannot comment as I don't use it regularly	23.1%

2.10 Do you wish to continue using social media and social networking sites in general?

Yes	93.6%
No	2.4%
Don't know	3.9%

## SECTION C

### PERCEPTIONS OF SOCIAL NETWORKING IN GENERAL

Please indicate with an "X" the extent to which you agree to the given statements in the following table. Note that (1) represents "strongly disagree", (2) "disagree", (3) "neutral", (4) "agree" and (5) "strongly agree". There are no correct or incorrect answers.

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1	I know what microblogging is (Twitter)	15.3%	12.9%	39.9%	18.9%	12.9%
3.2	Social networking sites can be used for connecting with lecturers	9.0%	15.0%	28.7%	35.3%	12.0%
3.3	Social networking sites can be used for research	4.2%	6.3%	17.4%	41.7%	30.3%
3.4	Social networking sites can be used for connecting with businesses	1.5%	2.4%	14.7%	47.3%	34.1%
3.5	I use social media to do research	9.9%	18.6%	31.1%	27.5%	12.9%
3.6	I use social media to get involved in groups, discussions and forums	13.2%	19.5%	26.9%	28.1%	12.3%



No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	on my academic work					
3.7	I use social networking to create events	16.8%	23.7%	22.2%	24.6%	12.6%
3.8	I use social media to meet new friends	6.3%	7.8%	16.8%	34.1%	35.0%
3.9	I seek advice via social networking	13.5%	19.2%	27.5%	21.6%	18.3%
3.10	I use social networking for information exchange	5.4%	9.3%	26.9%	37.4%	21.0%
3.11	I trust social networking sites in general	14.7%	21.9%	40.7%	16.8%	6.0%
3.12	I believe in social networking sites' privacy policies	8.4%	14.4%	33.3%	26.7%	17.1%
3.13	Social networking sites make it easier for me to find information	3.6%	8.4%	33.5%	35.9%	18.6%
3.14	Social networking sites can help me find academic-related information	6.9%	12.0%	33.2%	31.4%	16.5%
3.15	Social networking sites can help me find work-related information	1.5%	11.4%	39.8%	34.1%	13.2%
3.16	Using social networking sites are costly	9.0%	20.1%	22.2%	30.5%	18.3%
3.17	Social networking sites are time consuming	4.5%	12.0%	15.6%	33.2%	34.7%
3.18	Using social networking sites is a good idea	2.4%	2.4%	22.5%	47.3%	25.4%
3.19	Social networking sites	1.2%	3.9%	35.6%	42.8%	16.5%

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	connections are valuable					
3.20	Having a social networking profile has been important for my student experience	4.8%	12.6%	30.8%	29.6%	22.2%

## SECTION D

### **IF YOU HAVE NOT USED THE NMMU NETWORKING SITES, PLEASE DO NOT COMPLETE THIS SECTION**

#### **PERCEPTIONS OF NMMU SOCIAL NETWORKING**

Please indicate with an “X” the extent to which you agree to the given statements in the following table. Note that (1) represents “strongly disagree”, (2) “disagree”, (3) “neutral”, (4) “agree” and (5) “strongly agree”. There are no correct or incorrect answers.

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
4.1	I use NMMU social networking sites to connect with friends	12.8%	19.3%	18.7%	38.0%	11.2%
4.2	I use NMMU social networking sites to connect with lecturers	19.4%	25.8%	22.6%	24.2%	8.1%
4.3	I use NMMU social networking sites for research	8.1%	15.1%	21.0%	38.7%	17.2%
4.4	I use NMMU Social networking sites to connect with businesses	17.7%	26.3%	34.4%	16.7%	4.8%
4.5	I use NMMU Social networking	11.3%	16.7%	22.6%	29.0%	20.4%

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	sites for entertainment.					
4.6	I use NMMU social media to get involved in groups, discussions and forums on my academic work	9.2%	21.6%	26.5%	30.3%	12.4%
4.7	I use NMMU social networking to create events	21.1%	32.4%	25.4%	13.5%	7.6%
4.8	I use NMMU social media to meet new friends	11.4%	21.6%	22.7%	30.3%	14.1%
4.9	I seek advice via NMMU social networking	15.6%	25.3%	23.7%	25.8%	9.7%
4.10	I use NMMU social networking for information exchange	8.6%	16.7%	31.2%	31.7%	11.8%
4.11	I trust the NMMU social networking sites	8.1%	10.2%	33.9%	31.2%	16.7%
4.12	I believe NMMU social networking sites do not give my information to other people.	7.0%	11.3%	34.4%	31.2%	16.1%
4.13	I believe my NMMU social networking sites friends and contacts are dependable	3.8%	17.7%	46.2%	28.0%	4.3%
4.14	NMMU social networking sites make it easier for me to find information	4.8%	8.1%	31.7%	37.6%	17.7%
4.15	NMMU social networking sites help me find academic-related information	5.4%	8.6%	27.4%	32.3%	26.3%
4.16	NMMU social networking sites	4.8%	11.8%	29.6%	39.8%	14.0%

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	help me find work-related information					
4.17	Using NMMU social networking sites are costly	15.6%	31.2%	28.0%	12.4%	12.9%
4.18	NMMU social networking sites are time consuming	5.9%	20.4%	29.6%	26.3%	17.7%
4.19	Using NMMU social networking sites is a good idea	3.2%	4.8%	20.4%	50.5%	21.0%
4.20	NMMU social networking sites connections are valuable	3.8%	3.2%	33.3%	46.2%	13.4%
4.21	Having a NMMU social networking profile has been important for my student experience	7.0%	13.4%	28.5%	35.5%	15.6%
4.22	By using the NMMU social networking sites, I have become more connected to students at the Nelson Mandela Metropolitan University	6.5%	15.1%	29.0%	29.6%	19.9%
4.23	By using the NMMU social networking sites, I have become more connected to lecturers at the Nelson Mandela Metropolitan University	14.5%	24.2%	35.5%	18.8%	7.0%
4.24	Through NMMU social networking I have become more aware of library services at the Nelson	11.3%	10.8%	28.0%	32.8%	17.2%

No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	Mandela Metropolitan University					
4.25	Using the NMMU social networking sites is enjoyable	2.7%	10.2%	25.8%	30.6%	30.6%

**ANNEXURE C: ETHICAL CLEARANCE OF QUESTIONNAIRE**

**From:** Van Rensburg, Lindie (Ms) (Summerstrand Campus South)  
**Sent:** 21 July 2011 08:54 AM  
**To:** Struwig, Miemie (Prof) (South Campus)  
**Subject:** Ethics Number: H Mohamed

Good morning,

Herewith the ethics number for H Mohamed: **H 11 BUS BMa 020.**

Kind regards,

**Lindie van Rensburg**

School of Economics, Development and Tourism

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