

**EXPLORING THE USES AND GRATIFICATIONS OF FACEBOOK:
A PSYCHOLOGICAL STUDY**

by

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Abstract

Social networking sites such as Twitter, Facebook and My Space have experienced rapid worldwide growth. It is crucial that this global phenomenon be investigated within the South African context. Social networking is a relatively new trend in South Africa and there is a paucity of academic literature on the topic. This quantitative study investigated one of the most popular social networking websites to date, namely Facebook. Facebook is a social networking website which was launched in early 2004.

The primary research question focused on determining the usage patterns of South African Facebook users. In specific, the study investigated the purposes for which the site was used, the self-reported substitution of Facebook usage for face-to-face interaction and the relationship between Facebook affinity and Facebook use. A survey research design was used to collect data via an electronic questionnaire posted on Facebook. The theoretical point of departure was post-positivist. Media theories applied to the phenomenon under investigation include the uses and gratifications theory and the theory of the niche.

The findings suggest that Facebook is primarily used for its intended purpose of communication. The respondents reported the gratification of versatile (multipurpose) communication. Furthermore, only half of the sample reported privacy concerns regarding Facebook. There was no significant indication that Facebook is a substitute for face-to-face interaction. Half of the sample claimed that their interpersonal contact has increased as a result of Facebook use. In addition, in accordance with expectations, the more affiliated a person is to Facebook, the more they will use Facebook. The findings of this study conform to other studies concerning social networking and provide a South African view of the global phenomenon of social networking websites.

Keywords

social networking, Facebook, substitution, face-to-face interaction, affinity, uses and gratifications, theory of the niche, versatile communication

Table of Contents

ACKNOWLEDGEMENTS	ii
Abstract.....	iii
CHAPTER 1	1
Introduction and background to the study.....	1
1.1 Introduction.....	1
1.2 Background to the research.....	1
1.3 Description of a social networking website.....	2
1.4 Justification for the research.....	4
1.5 Stating the research questions	5
1.6 Aim of the study.....	5
1.7 Format of the presentation of the study.....	6
1.8 Conclusion.....	7
CHAPTER 2.....	8
Literature Review: Computer Mediated Communication.....	8
2. 1. Introduction.....	8
2. 2 Computer mediated communication	8
2. 2. 1 Definition.....	8
2. 2. 2 The ongoing debate	9
2. 2. 3 Forms of computer mediated communication.....	9
2. 2. 4 Reasons for CMC's popularity.....	10
2. 2. 5 The binary vision of CMC	12
2. 2. 6 Research concerning the utopian viewpoint of computer mediated communication.....	14
2. 2. 7 Research concerning the Dystopian viewpoint of computer mediated communication.....	19
2. 3 Affinity	21
2. 4 Previous research pertaining to social networking websites.....	22
2. 4. 1 Identity construction on social networking websites.....	23
2. 4. 2 Profiles	24
2. 4. 3 Social networking websites and academic institutions.....	25
2. 4. 4 Social networking websites and personal identifying information.....	25
2. 4. 5 Social networking websites and social relationships.....	25
2. 4. 6 Knowledge about social networking websites.....	26



2.5	Previous Uses and Gratifications research	28
2.6	Conclusion.....	32
CHAPTER 3.....		34
Theoretical point of departure.....		34
1.1	Introduction.....	34
3.2	Theoretical framework	34
3.2.1	History of post-positivism	34
3.2.1.1	Assumptions	36
3.2.1.2	Relevance of post-positivism for the current study	37
3.3.1	Critical realism	38
3.3.1.1	Relevance of Critical Realism for the current study	39
3.4	Media Theories.....	40
3.4.1	Uses and gratifications theory	40
3.4.1.1	Relevance of the uses and gratifications theory for the current study .	40
3.4.1.2	History of uses and gratifications theory.....	41
3.4.1.3	Assumptions of uses and gratifications theory.....	41
3.4.1.4	Critique of uses and gratification theory	43
3.4.2	Niche theory.....	43
3.4.2.1	Relevance of the niche theory for the current study.....	44
3.4.2.2	History.....	44
3.4.2.3	Assumptions	44
3.4.2.4	Displacement hypothesis	45
3.5	Conclusion.....	46
CHAPTER 4.....		47
Research Methodology		47
4.1	Introduction.....	47
4.2	Research context.....	47
4.3	Research design.....	48
4.3.1	Quantitative research design.....	48
4.3.2	Definition of a survey.....	48
4.3.3	Purposes of the survey	49
4.3.4	Qualitative research technique	50
4.4	Research Participants.....	50
4.4.1	Sampling.....	50
4.4.2	Participant characteristics	51
4.5	Research Position	51



4.6	Data collection	52
4.6.1	Data collection procedure	52
4.6.2	Measurement instrument.....	53
4.6.2.1	Demographics.....	54
4.6.2.2	Facebook use	54
4.6.2.3	Motivations for Facebook use (uses and gratifications)	54
4.6.2.4	Self-reported substitution of face-to-face interaction as a result of Facebook use	54
4.6.2.5	Affinity.....	55
4.6.2.6	Respondents privacy concerns regarding Facebook.....	55
4.6.2.7	Personality characteristics of the sample	55
4.7	Data analysis.....	55
4.7.1	Reliability analysis.....	56
4.7.2	Wordle	56
4.7.3	T-tests.....	56
4.7.3.1	Evaluation of data assumptions for t-test analysis.....	56
4.7.4	Chi-square test.....	57
4.7.4.1	Evaluation of data assumptions for chi-square test analysis.....	57
4.7.5	One-way analysis of variance	57
4.7.5.1	Evaluation of data assumptions for ANOVA analysis	58
4.7.6	Correlation and Regression.....	58
4.7.5.1	Evaluation of data assumptions for correlation and regression analysis	58
4.7.8.	Factor analysis.....	59
4.7.8.1	Evaluation of data assumptions for factor analysis.....	59
4.8	Ethics	59
4.9	Data quality	60
4.9.1	Reliability	60
4.9.2	Validity	61
4.9.2.1	External validity.....	61
4.9.2.2	Face validity.....	62
4.9.2.3	Criterion related validity.....	62
4.9.2.4	Content validity	62
4.10	Conclusion.....	63
CHAPTER 5.....		64
Results.....		64



5.1	Introduction.....	64
5.2	Reliability of the Facebook questionnaire.....	64
5.3	Demographics	65
5.4	Results	70
5.4.1	Uses and gratifications of Facebook	70
5.4.2	The role of Facebook in face-to-face interaction.....	76
5.4.3	Affinity and Facebook use	77
5.4.4	Respondents' privacy issues and Facebook use.....	77
5.4.5	Personality facets of the sample.....	81
5.5.	Statistical analysis	84
5.5.1	One sample t-test.....	86
5.5.2	Cross tabulations	88
5.5.2.1	The relationship between gender and overall Facebook use.....	88
5.5.3	Independent samples t-test.....	90
5.5.3.1	The relationship between personality traits/descriptions of the sample and gender and age	91
5.5.4	One-way ANOVA	92
5.5.5	The relationship between affinity towards Facebook and Facebook use	92
5.5.6	Linear Regression	95
5.5.7	Factor analysis.....	96
5.6	Conclusion.....	100
	CHAPTER 6.....	102
	Discussion.....	102
6.1	Introduction.....	102
6.2	Synopsis of the literature review	102
6.3	The sample's use of Facebook	103
6.4	Uses and gratifications	104
6.4.1	Popular uses and gratifications	104
6.4.2	Facebook is mainly used for communication	105
6.4.3	Synopsis of factors or elements that illuminate Facebook use	105
6.5	The displacement hypothesis	107
6.6	Facebook and the role of affinity	109
6.7	Facebook users' privacy concerns.....	109
6.8	Elucidating the research questions	110
6.9	Limitations of the current study	111



6.10	Future research	112
6.11	Conclusion.....	113
REFERENCES.....		114
APPENDIX A.....		127
APPENDIX B.....		136

List of Tables

Table 1 Reliability statistic of the scale	64
Table 2 Mean age of the respondents	66
Table 3 Average time spent on Facebook per visit	69
Table 4 Descriptive statistics of the variables	84
Table 5 Significance of each variable	86
Table 6 Relationship between gender and privacy concerns regarding Facebook.....	89
Table 7 The relationship between gender and Facebook use.....	89
Table 8 The relationship between age and privacy concerns of Facebook.....	89
Table 9 Correlations between time allocated to Facebook and affinity	94
Table 10 Correlation between Facebook affinity and the substitution of face-to-face interaction.....	95
Table 11 Model summary of prediction.....	95
Table 12 One-way analysis of variance depicting degree of prediction.....	95
Table 13 Coefficients depicting affinity felt towards Facebook and Facebook use.....	96
Table 14 KMO and Bartlett's test to indicate factor analysis is justified.....	97
Table 15 Rotated component matrix depicting the factors as formed by the variables...	98

List of Figures

Figure 1 Age of respondents	65
Figure 2 Age of respondents recoded	67
Figure 3 Gender of respondents.....	67
Figure 4 Race of respondents	68
Figure 5 Usage of Facebook per week for the respondents.....	68
Figure 6 Time spent on Facebook per visit.....	69
Figure 7 Access location of Facebook for the respondents.....	69
Figure 8 Communication uses and gratifications	71
Figure 9 Specific uses and gratifications	72
Figure 10 Other uses and gratifications	73
Figure 11 Information seeking/sharing uses and gratifications	75
Figure 12 Facebook and interpersonal contact.....	76
Figure 13 Facebook affinity	77
Figure 14 Respondents and their privacy concerns regarding Facebook.....	78
Figure 15 Reasons why the respondents have privacy concerns regarding Facebook	79
Figure 16 Personality descriptions of the sample	82
Figure 17 Personality traits of the sample.....	83
Figure 18 Scree plot depicting the relationship between Facebook use and affinity	93
Figure 19 Scree plot depicting the factors as formed by the variables	97

CHAPTER 1

Introduction and background to the study

1.1 Introduction

This chapter provides a summary of the research conducted for the current study, namely exploring the uses and gratifications of Facebook. The research background is provided, the reasons for the research are discussed in terms of the researcher's interest in the topic. In addition, information is provided as to why the study chose to focus on Facebook in particular. Furthermore, the history, definition and foundation of Facebook as a social networking site is discussed. The chapter also introduces the research questions that informed this dissertation. Finally the aims of the research are discussed. The chapter concludes with a brief summary of the format of the dissertation.

1.2 Background to the research

The growing popularity of social networking sites is undeniable. These websites facilitate a high degree of user personalization and intercommunication. Evidence indicates that the growth of these social networking sites is accelerating. The number of users has reached tens of millions and many individuals have integrated these sites into their daily practices (Boyd & Ellison, 2008; Charnigo & Barnett-Ellis, 2007; Golder, Wilkinson & Huberman, 2007; Nyland, 2007; Patton, 2007). These social websites or social networks represent a rich source of electronic data and provided an excellent opportunity to study dynamic patterns of social interactions (Golder et al.). There are currently many social networking sites with My Space, Twitter and Facebook being some of the most popular. Although all of the social networking websites share fairly similar technological characteristics, the cultures that have emerged around each site are different (Boyd & Ellison, 2008).

The first recognizable social networking site was launched in 1997 under the name SixDegrees.com. Many other sites have subsequently been launched, including Classmates.com, Ryze.com, Friendster, MySpace, Facebook and Twitter. All of these sites share some essential characteristics but differ on a wide array of functions and technological aspects.

Facebook, the website researched in this dissertation, was launched in early 2004 as a Harvard only social networking site and was initially only designed to support distinct college networks. In order to join a user had to have a Harvard.edu email address. Facebook gradually began to support other schools (universities and colleges), and those individuals were also required to have university or institutional email addresses. This resulted in a relatively closed site and a sense of an intimate private community was created (Boyd & Ellison, 2008; Golder et al., 2007). In September 2005 Facebook expanded to include high school students and professionals from corporate networks. Over time the network developed further and it is now possible for anyone to join Facebook.

Facebook differs from other social networking sites in that registered Facebook users have the choice in whether they want to make their full profiles public to all users. In addition, Facebook users are also able to design 'applications'. Designing applications allows users to personalize their profiles. Furthermore, users can perform tasks such as compare movie preferences, participate in small personality quizzes and play virtual games (Boyd & Ellison, 2008; Zhao, Grasmuck & Martin, 2008).

1.3 Description of a social networking website

Golder et al. (2007) define a social network as all the people that one shares a social relationship with. This includes friends, family and other acquaintances. Viewed from a macro level a social network is a demonstration of how a large number of people are related to one another (Golder et al.; Robins & Kashima, 2008). Due to the internet's constantly evolving nature as a technology mechanism and communication agent, internet technologies have become helpful in supporting relationships and communities that are proximally or geographically distant. The internet is therefore a useful tool in the maintenance of a social network.

According to Boyd and Ellison (2008) and Golder et al. (2007) a social networking site can be defined as a web based service that enables individuals to:

- Construct a public or semi-public profile within a bounded system. This is most commonly done through photographs, vital statistics and interests;
- Identify and accentuate a list of other users with whom they share a connection; and
- View and transverse with their list of connections and those made by others within the system. These connections vary from site to site depending on the nature of the website. These links or connections between people is known as the 'network'. This forms part of the social network and it is through this mechanism that sharing is enabled, such as the sharing of photographs or messages.

Most social networking sites support the maintenance of pre-existing social networks. However, other sites cater to the needs of individuals who want to connect to strangers based on shared interests, political views or activities. Some sites attract a diverse population, while others attract people based on a common language or shared racial, sexual, religious or nationality-based identities (Boyd & Ellison, 2008). These sites are unique in that they allow individuals to articulate and make visible their social networks (Boyd & Ellison; Zhao et al., 2008). This results in individuals being able to extend and improve existing social networks. This study aimed to investigate the extension or improvement of social networks through studying the uses and gratifications of Facebook. According to Charnigo and Barnett-Ellis (2007) many interesting search options are available on Facebook. Some of these options are:

- Search for students by course field, class number or section;
- Search for students in a particular major;
- Search for students in a particular student organization or club;
- Create 'groups' for student organizations, clubs or other students with common interests;
- Post announcements about campus or organization events;
- Search specifically for alumni; and
- Block or limit who may view profiles, thus providing users with built-in privacy protection.

All the social networking sites consist of a visible personal profile that displays an accentuated list of friends whom are also registered users of the system. Each user's site is unique. Many individuals articulate their 'being' or personalities through their profiles. When an individual joins they are asked to answer various questions. Through the answers to these questions a profile is generated. The profile usually includes descriptors such as age, interests, location and information about the individual, such as likes and dislikes. Furthermore, most sites allow and encourage individuals to upload a photograph of themselves. Some sites even allow individuals to add multimedia content or 'applications' to enhance their profile (Boyd & Ellison, 2008; Golder et al., 2007). After an individual has joined a social networking site, users identify others in the system with whom they share a relationship. In this manner they begin building their 'friends' or 'contacts' list. The so-called 'friending' process entails an individual inviting someone to be his or her friend. The invitee then accepts the invitation and is added to the 'friends' list. This list is then used to link to the profiles of other individuals on the list. Users can then leave messages on these profiles and communicate through other means, such as video or photo sharing. The visibility of profiles varies from site to site and from user to user. An individual user must be given permission to view another user's profile (Boyd & Ellison, 2008; Golder et al., 2007; Zhao et al., 2008).

It is important not to underestimate the impact of these social networking sites. Many corporations invest both time and money in creating, purchasing, promoting and advertising social networking sites. In addition, many companies have resorted to blocking their employees from accessing these sites (Boyd & Ellison, 2008) as the sites' increasing popularity leads to a loss of production time. However, Patton (2007) asserts that social networking sites can be used for a range of positive things such as:

- Law enforcement can use these sites to solve crimes and to prevent serious crimes;
- Principals, teachers and lecturers can use social networking sites to better understand their students or monitor the activities of students; and
- Golder et al. (2007) state that many individuals spend a significant amount of their time using online social networking. This provides an opportunity to study dynamic patterns of social interactions.

This necessitates more research about the positive aspects of social networking sites.

1.4 Justification for the research

This idea was initially fueled by the researcher's own awareness of the rapid dissemination of Facebook among university students and people in general. The fact that Facebook is part of many individuals' lives positions it as a phenomenon that needs to be researched. Particularly, it seems that individuals are using Facebook for many reasons and that this usage is gratifying to them. Facebook cannot be used unconditionally – it will always exert an influence over people and social relationships. It is important that we understand the nature of this influence.

Scholars from a wide array of disciplines have examined social networking sites in order to understand the practices, implications, culture and meaning of the sites as well as the manner in which users engage with these sites (Acquisti & Gross, 2006; Boyd, 2004; Boyd & Ellison, 2008; Charnigo & Barnett-Ellis, 2007; De Souza & Dick, 2007; Hinduja & Patchin, 2008; Nyland, 2007; Raacke & Bonds-Raacke, 2008). The growing popularity of these social networking sites positions them as a vibrant new research context for researchers (Boyd & Ellison; Charnigo & Barnett-Ellis). Raacke and Bonds-Raacke (2008) assert that the cultures that emerge around each social networking site are different. This indicates the need for ongoing research concerning every novel Computer Mediated Communication (CMC) medium, as research cannot be universally applied to all CMC mediums.

Research shows that a strong affinity for using the internet may precede internet addiction (Ferguson, Greer & Reardon, 2007). Similarly, the strong affinity individual's exhibit towards Facebook also warrants inspection, because it may be indicative of an existing or developing

addiction. However, the term addiction should be used with caution as behaviour labeled addictive might simply be indicative of affinity (Ferguson et al., 2007). An examination of affinity behaviors related to Facebook is warranted due to the site's popularity and its current position as part of many individuals' daily routine. Affinity towards Facebook has not been studied nationally or internationally. This study attempts to address this gap in the literature.

1.5 Stating the research questions

The field of social networking or CMC is a neglected topic in the South African research arena. A search of academic journals found a PhD study that was conducted in 2008 on the topic. The study aimed to establish the factors that influence the usage of social networking sites amongst young, professional South Africans (Allen, 2010). Similarly, research that took the form of a worldwide study (which included South Africa) conducted by Synovate (2008), a market research company. The purpose of this study was therefore to examine how social networking users, specifically Facebook users, are using social networking technology.

The current study investigated the uses and gratifications of Facebook. Furthermore, the study also investigated whether Facebook leads to self-reported substitution of face-to-face interaction. The study thus investigated whether Facebook, a fairly new communication technology, has become a self-reported substitute for other more traditional communication media, specifically face-to-face interaction.

The primary research question was:

- *What uses and gratifications are associated with the use of Facebook?*

Additional questions were asked to investigate this phenomenon. These included:

- *What is the role of Facebook in the self-reported substitution of face-to-face interaction for Facebook users?* This question aimed to determine whether Facebook use complements or substitutes face-to-face interaction.
- *What is the relationship between Facebook and affinity, i.e. does affinity predict Facebook use?*

1.6 Aim of the study

The internet is increasingly gaining influence relative to other media forms. As the medium continues to develop and expand, more research will be necessary to explore its influence on the daily life of human beings (Whitty, 2008). The current dissertation aimed to examine the

functioning of the internet through exploring the role of a social networking site, Facebook, in the maintenance of social relationships.

The relative newness of Facebook means that relatively few conclusive studies or findings exist regarding its social, cultural and economic impact. However, evidence suggests that the nature of physical real-world relationships and interactions are changing because of social networking sites such as Facebook (Boyd & Ellison, 2008; Ellison, Steinfeld & Lampe, 2007; Hargittai, 2008; Hinduja & Patchin, 2008; Houston & Sichler, 2007). The current study aimed to provide a meaningful investigation of Facebook, thus addressing this gap in the literature. In addition, the study further aimed to explore the role of Facebook in shaping real world relationships. Previous scholars assert that researchers need to investigate the prevalence of these sites among users, the characteristics of the typical user and the personal and social needs that are associated with the usage of these sites. In particular, it has been suggested that investigation is needed regarding how the internet mediates the conduct of communication, especially outside of the U.S.A. (Boyd & Ellison, 2008; Di Gennaro & Dutton, 2007; Livingstone, 2004). A further aim of the current study was thus to explore the needs associated with Facebook by applying the theory of uses and gratifications (Raacke & Bonds-Raacke, 2008) and exploring the role of Facebook in the substitution of face-to-face interaction. Thus, this study, like others (Di Gennaro & Dutton, 2007; Nyland, 2007; Raacke & Bonds-Raacke, 2008) aimed to investigate the impact of the internet on social relationships.

Lastly, due to the fact that only Synovate (2008) has conducted Facebook research that included South African participants, a specific aim of the study was to conduct research about the uses and gratifications of Facebook for South African Facebook users. As an exploratory study, this research aimed to contribute to studies on social networking websites, and to supply a South African perspective on the uses of Facebook.

1.7 Format of the presentation of the study

The introductory chapter discussed the research background, orientation and justification. The research problem and aims were also presented. In addition, the chapter also discussed the reasons why the research was deemed pertinent.

Chapter two is a literature review that focuses on the internet, social networking websites, Facebook and face-to-face communication. Particular attention is paid to the uses and gratifications associated with the internet in general and social networking websites in particular. Furthermore, the role of the internet and social networking in interpersonal relationships is illuminated. This is then compared to face-to-face communication. Essentially, the literature review discusses two dominant and opposing views of the internet. The one

view sees the internet as exerting a positive influence on individuals, while the other view sees the internet as wielding a negative influence on individuals.

Chapter three introduces the reader to the theoretical point of departure. Critical realism, a form of post-positivism, is discussed. Furthermore, two media theories, namely the uses and gratifications theory and the theory of the niche, are highlighted. These theories are used to substantiate and supply meaning to the current findings.

Chapter four focuses on the methodology used in the study. Attention is paid to the research questions, the design of the study and the sampling. The chapter discusses how the relevant information about the research context and the target market were obtained.

Chapter five discusses the analysis of the data and the statistical procedures, programs and methods employed to lead the researcher to meaningful conclusions and strategic recommendations regarding Facebook.

Chapter six discusses the results of the survey as presented in chapter five and compares the findings with previous literature. Subsequently, the reciprocal relationships between the theory employed, the literature review and the findings are discussed. Chapter six also includes the study's conclusions. The limitations of the study are explored and recommendations are made for future research.

1.8 Conclusion

The preceding chapter gave a brief outline of the structure of the dissertation and familiarised the reader with the topic under discussion. Furthermore, the justification for the research was articulated. The history and description of the topic under discussion were also provided. Chapter two provides a detailed literature review that aims to provide meaning and context for the research.

CHAPTER 2

Literature Review: Computer Mediated Communication

2. 1. Introduction

Facebook is a new computer mediated communication (CMC) medium and the purpose of this study was to examine how social networking users, specifically Facebook users, are using this technology. Furthermore, the study determined the self-reported substitution of face-to-face interaction as a result of Facebook use. This chapter articulates relevant literature pertaining to CMC and Facebook in an attempt to provide a context for the research questions outlined in chapter one.

The chapter begins by discussing literature on CMC. In specific, findings on the utopian and dystopian viewpoints of CMC are provided. Secondly, affinity with CMC is explored. Thirdly, previous literature on social networking websites is presented. The chapter ends with a section on previous research pertaining to the uses and gratifications of social networking websites and the internet in general.

2. 2 Computer mediated communication

A social networking site such as Facebook enables communication by the internet and the following section provides a comprehensive discussion of the umbrella term CMC. Specific attention is paid to CMC's definition, reasons for its popularity, forms of CMC and the ongoing debate surrounding different types of CMC.

2. 2. 1 Definition

CMC includes any form of exchange such as video, audio or text that requires the use of a computer (Dietz-Uhler & Bishop-Clark, 2001; Herring, 2002, 2004; Zazcek & Bonn, 2006). Researchers agree that communication via the Internet (CMC) is different from real life

communication (Colley & Maltby, 2008; Zazcek & Bonn, 2006). These differences are explored in the sections that follow.

2. 2. 2 The ongoing debate

It has been said that the internet will eventually change almost every aspect of our lives - private, social, cultural, economic and political (Bargh & McKenna, 2004). The internet has also been described as the greatest social phenomenon of human history (Plant, 2004). The internet revolves around the very essence of human society: communication between people (Bargh & McKenna, 2004). Although the mode of provision has changed, the end goal of interpersonal social communication has not (Anderson & Tracy, 2001; Lin, Sun, Lee & Wu, 2007).

Communication scholars and social psychologists have been studying the effects of CMC and the formation and maintenance of social relationships for decades (Di Gennaro & Dutton, 2007). The area of interpersonal communication through the web has attracted a lot of attention from researchers (Colley & Maltby, 2008; Hampton & Wellman, 1999, 2003; Zazcek & Bonn, 2006). CMC technologies shape communication and social relationships and thus also shape social behaviour (Di Gennaro & Dutton, 2007; Herring, 2002, 2004; Houston & Sichler, 2007; Plant, 2004; Raacke & Bonds-Raacke, 2008). The information presented in the literature on CMC contains a conception of the online world as a new arena for meaningful social relationships, an arena that is merged with the offline world (Di Gennaro & Dutton; Monberg, 2006). The literature further sees the internet as a new communication media that challenges the traditional distinctions between media production and media consumption (Zeitlyn, Bex & David, 1998). Furthermore, according to Jo and Kim (2003), the interactive nature of the internet is one of its most distinguishing characteristics when compared to traditional media like the television and radio. Interactivity is a critical component of CMC.

2. 2. 3 Forms of computer mediated communication

CMC can be categorized as either synchronous or asynchronous. Synchronous CMC takes place in real time. This means that participants communicate with each other at the same time or with a very short delay. Examples include instant messenger, video conferencing and internet chat. Face-to-face and telephonic communication can be seen as traditional forms of synchronous communication (Peters, 1998). Asynchronous communication does not occur in real time. In asynchronous communication there is often a substantial delay between departure and receipt of a communication message. Examples of asynchronous CMC include email, internet bulletin/discussion boards, listservers and newsgroups (Dietz-Uhler & Bishop-

Clark, 2001; Herring, 2004; Peters, 1998). Facebook enables both synchronous and asynchronous communication.

Synchronous and asynchronous CMC modes differ in forms of interactivity. Contextual factors can also differentiate manners of CMC. Differences such as age, race, gender and level of education result in different communication styles and content even if users are using the same CMC method. Online communication is also influenced by participant structure. Factors such as the number of participants, whether the communication is public as opposed to private and the social network density all play a role (Hargittai, 2008; Mayer & Puller, 2008). Thus, although CMC can be seen as a single communication medium, different modes within the median enable communication in different ways, resulting in different outcomes and effects.

The information presented thus far points to the difficulty of arriving at an understanding of CMC in terms of its influence on social behavior and social communication. It also points to the impossibility of forming generalizations that are stable across all CMC research. Problems may arise due to the fact that any results generated will be limited in terms of the sample, type of CMC or social network, age of participant and context. This was not regarded as a problem for the current study as the study did not aim to make generalizations.

Even though the objective of this study is to understand the use of Facebook, it is extremely difficult to make predictions about technology as technology is rapidly changing and individuals can hardly make productive use of its new capabilities (Fuchs, 2001). The information presented positions the current study as an exploratory study with the main aim of exploring certain aspects of Facebook, a social networking website.

2. 2. 4 Reasons for CMC's popularity

Etzioni and Etzioni (1999) and Peter and Valkenburg (2006) offer four characteristics of CMC that may account for its popularity. These characteristics are:

- During CMC individuals have more time to reflect than during face-to-face communication. This ensures that they are offered a high degree of control in terms of when, what, and how much they communicate to others on the internet.
- CMC conveys fewer social status cues than face-to-face communication. Subsequently, contact between people is more easily made and a higher degree of reciprocity is offered. This is because individuals may feel that they and others can be more responsive with CMC as opposed to face-to-face communication.
- CMC has less visual and auditory cues, making it easier to overcome shyness.

- Online communication also offers advantages to the user such as controllability, reciprocity, breadth and depth. These factors might explain why people choose to communicate online.

The characteristics listed above substantiate Lin et al.'s (2007) research findings that suggest that instant message software on the internet, another new CMC, has three features:

- It involves short communication, and messages are exchanged fast.
- It provides quick and effective communication.
- Individuals can use this type of communication while doing other things at the same time (multi-tasking).

These features contribute to people choosing this type of communication mode more often. They also suggest that the mode of communication can have a negative effect on one's social relationships if used constantly (Lin et al.). This is because it is seen as a 'quick and dirty' communication tool. Dirty communication refers to the fact that the communication is carried out without much contemplation.

The above findings (Etzioni & Etzioni, 1999; Lin et al., 2007; Peter & Valkenburg, 2006) can be applied to Facebook and can potentially explain its popularity and the reasons people make use of the site. The main points from the discussion above that can be applied to Facebook are that it is quick and efficient, it is easy to use, individuals can use it while doing other things such as working and individuals experience a strong sense of control during social networking communication. As discussed, instant messaging has been referred to as a 'quick and dirty' communication tool and the same principle can be applied to Facebook. Furthermore, communication in this manner might prove to be difficult for the growth and initiation of interpersonal relationships. In addition, the regular use of Facebook may cause communication problems. Lin et al. (2007) state that face-to-face communication is superior to CMC for the following reasons:

- Face-to-face communication offers verbal and non verbal cues: This is important because it leaves less opportunity for misinterpretation between communication partners.
- During face-to-face communication, the tone of the conversation and meaning is important: Once again this limits the opportunity for message misinterpretation and allows that the true gist of the message comes across.
- Face-to-face communication offers an immediate response: This ensures concurrent communication reciprocity between partners.
- A participant's background and social status is readily identifiable in face-to-face-communication: This is extremely relevant in CMC contexts, for example chat rooms, where people don't know each other in real life. It allows for the recognition of the communicator(s). Similarly, it also counteracts the effects

of message misinterpretation and mediates the conveyance of the messages' meaning and nature.

These factors are absent in CMCs such as Facebook. This could be detrimental to individuals' communication behavior, in particular when Facebook is used to maintain close relationships. As shown above, CMC communication modes can be restrictive in capturing and transmitting the true essence of messages.

2. 2. 5 The binary vision of CMC

In the 20th century youth primarily kept in touch via face-to-face interaction and the telephone. However, in the 21st century youth with access to the internet are communicating using computer methods (Hinduja & Patchin, 2008; Merkle & Richardson, 2000). Today face-to-face interaction is substituted and complemented by computer mediated technology. Computer mediated technology is more convenient, expedient and purposeful than previous traditional means of staying in contact (Herring, 2004; Hinduja & Patchin, 2008; Lenhart, Madden & Hitlin, 2007; Lenhart, Raini & Lewis, 2001). The research shows that the evolution towards electronic media is creating a new environment for interpersonal relationships (Merkle & Richardson, 2000; Wellman, Haase, Witte & Hampton, 2001). As the new technologies evolve, their properties (uses and effects) can shift (Lo & Lie, 2008; Stern, 2008).

Nyland (2007) states that social networking is one of the newest forms of CMC. Certain forms of media may function as a substitute for social relationships, or facilitate communication between two individuals. Hence, there is agreement among scholars that the internet is changing society. However, there is little agreement about what these changes are (DiMaggio, Hargittai, Neuman & Robinson, 2001). The internet is offering a new domain for communication. This domain could create a new public sphere or it could result in people being removed from public life (Fisher & Wright, 2001). Fisher and Wright confirms Quan-Haase and Wellman's (2004) assertion that views regarding the internet's effect on social capital can be divided into three broad perspectives. These approaches can be conceptualized as follows:

- The internet transforms social capital. In this view the internet provides the means for inexpensive and convenient communication.
- The internet diminishes social capital. From this perspective the internet's functions such as entertainment, information and communication capabilities draw people away from family and friends.
- The internet supplements social capital. This viewpoint holds that the internet fulfills a meaningful role in people's lives. It offers an alternative means of communication

that facilitates existing social relationships and follows patterns of civic engagement and socialization.

These viewpoints can be summarized as two contradictory views of the social implications of the internet, namely the utopian and dystopian vision (Ishii & Ogasahara, 2007). The utopian vision suggests that the internet expands your social network. The dystopian vision indicates the opposite and posits that the internet has detrimental effects on social relationships. The utopian and dystopian perspectives are currently the dominant perspectives regarding the effects or impact of the internet. These perspectives represent the views of individuals regarding the way in which the internet is changing society. Utopian believers suggest that the internet will facilitate engagement and increase the ease with which we communicate. Furthermore, utopian believers feel that the internet will enable individuals to transcend geographic and social boundaries. In contrast, the dystopian view of the internet views the internet as more than a simple tool and focuses on the possible negative effects of the internet. Essentially, the dystopian believers suggest that the internet can negatively alter communication practices and may result in individuals becoming more isolated from one another (Fisher & Wright, 2001; Hampton & Wellman, 1999, 2003; Ishii & Ogasahara, 2007; Wellman et al., 2001). They further suggest that relationship fragmentation will occur if face-to-face interaction is supplemented by mediated communication modes (Fisher & Wright, 2001; Hampton & Wellman, 1999, 2003). Reasons for the fragmentation revolve around the fact that relationships will disintegrate subsequent to relying on CMC because of the limiting nature of CMC to get the true essence of messages across to communication partners.

This brief discussion of the opposing viewpoints indicates that questions revolve around whether CMC leads to tightened and wired communities of coordination and corporation, or whether the internet has the potential to erode psychological well being, weaken real-world social ties and reduce community involvement (Dietz-Uhler & Bishop-Clark, 2001; Di Gennaro & Dutton, 2007; Ferguson et al., 2007; Livingstone, 2004; Shah, Kwak & Holbert, 2001; Scherer, 1997).

The following sections elaborate on previous findings from research on CMC, focusing specifically on the utopian and dystopian visions of CMC. The findings are contradictory and these contradictions are explored. As Facebook research is still in its infancy, for the purposes of this study it was assumed that previous research on CMC in general can be applied to Facebook in particular. This assumption was based on the fact that Facebook is regarded as a type of CMC (Nyland, 2007).

2. 2. 6 **Research concerning the utopian viewpoint of computer mediated communication**

It has been shown that CMC is useful in maintaining contact with distant friends and family. In addition, CMC does not have to be restricted to task oriented or factual exchanges. Users can express social and personal meanings like letter writers and authors have done for many years (Herring, 2004). There is an academic perspective that views the online world as a new arena for meaningful social relationships that are intertwined with the offline world (Di Gennaro & Dutton, 2007). This substantiates suggestions in the literature that the internet does enhance social ties by reinforcing the existing behaviour patterns of social ties (DiMaggio et al., 2001). The rationale is that the internet enables one to be in more frequent contact with family and friends (DiMaggio et al.) and that the internet is often used as a tool to maintain and extend offline social relationships (Di Gennaro & Dutton, 2007; Ishii & Ogasahara, 2007; Lin et al., 2007; Xie, 2007). Online communication therefore fosters relationship building and improves communication between parties (Raacke & Bonds-Raacke, 2008).

As mentioned previously, debates centre on whether communication via the computer leads to the substitution or replacement of face-to-face and other modes of communication. CMC has become popular as a means of communication because CMC has the ability to fulfill many of the same functions as more traditional forms of interaction such as face-to-face interaction (Ramirez & Wang, 2008). In the past researchers were concerned with how CMC altered the message exchange process, but today researchers are more concerned with how CMC and face-to-face interaction are used in conjunction to complement each other and produce effective communication (Ramirez & Zhang, 2007). This indicates that concern has been transformed into awareness that communication modes can be used simultaneously and in conjunction, rather than in competition. In short, the internet has joined telephonic and face-to-face contact as a primary means of communication, one that can be more convenient and affordable. Although face-to-face interaction and telephone contact continues, they are complemented by the internet's ease in connecting geographically dispersed people and organizations bonded by shared interests (Quan-Haase & Wellman, 2004). According to Livingstone (2004), the crucial point is not that one media is replacing or substituting the next, but rather that individuals now engage with a media environment that integrates print, audiovisual, telephonic and computer media. Several studies have provided support for the positive effect of CMC. These studies are explored in the paragraphs that follow.

Whitty (2008) demonstrates that online relationships can be empowering for many people. Cyberspace provides a unique environment for people to experience and to learn about relationships and sexuality. The constantly evolving nature of the internet makes it challenging to know the exact pros and cons associated with the internet. However, the

internet provides unique opportunities for interaction as individuals can learn communication skills online. At times, internet communication may be more intimate and personal than face-to-face communication. Also, Parks and Floyd (1998) assert that individuals may derive just as much social support from CMC as face-to-face communication.

In their study Etzioni and Etzioni (1999) demonstrate that the communication needs of communities are not necessarily adversely affected by the use of CMC. The authors point to the difficulty of defining the term community in any research. However, for the purpose of their study the authors indicate that the term 'community' "refers to a web of affect-laden relationships that encompasses a group of individuals" (Etzioni & Etzioni, 1999, p. 241). This is also known as bonding. They further specify that a community requires a measure of commitment to a set of shared values, mores, meanings and historical identity, i.e. culture. Etzioni and Etzioni (1999) suggest that CMC is very different from face-to-face interaction, but this is not indicative of inferiority, nor does it mean that CMC is unable to meet the criteria of sharing and bonding. They stipulate that communities should be compared and their relative merits and demerits investigated. Thus, face-to-face relationships (one community) and CMC relationships (another community) should be compared. This comparison will discover advantages and disadvantages of each communication mode or community and will thus result in a more accurate reflection of CMC. Therefore, the focus should not be on what CMC lacks in relation to face-to-face interaction. Furthermore, Etzioni and Etzioni (1999) suggest that communities that combine both face-to-face communication and CMC would be able to bond and share values more effectively than communities that rely on only one type of communication. Using two methods of communication allows one to make use of the strengths of both methods. Communication is dependent on circumstances, individuals and context (Walther, Slovacek & Tidwell, 2001).

These findings confirm the findings of Shah et al. (2001) who demonstrated that the relationship between new media and social capital is dynamic and highly contextual. In contrast to authors such as Kraut et al. (1998) and Nie and Erbring (2000), Shah et al. (2001) found that the internet is not an unconditional danger to social association, personal well-being and psychological well-being. The relationship between internet use and the production and maintenance of social capital must be viewed as more provisional and dependent on the motives individuals bring to the use of the internet.

Similarly, Scherer (1997) also demonstrates that CMC would not put an end to face-to-face interaction. Scherer's study included both internet dependent individuals and individuals who are not dependent on the internet. Internet dependency was defined through the use of a clinical symptom questionnaire consisting of 10 symptoms of internet dependency. The majority of respondents in Scherer's study "describe themselves as sociable or very sociable as opposed to shy, introverted, or unsociable" (Scherer, 1997, p. 5). The respondents had

more face-to-face relationships than on-line relationships. Although the majority of internet-dependent students in Scherer's study reported more face-to-face than on-line relationships, dependent students were more likely than other students to have a larger proportion of relationships on-line. This confirms the findings of James, Worthing and Forest (1995) who found that utilization of bulletin boards on the internet decreased letter writing and telephone communication, but had no impact on face-to-face communication.

Despite the fact that teenagers exhibit a great affection for technology and for interaction through technology, they report that they still prefer socializing face-to-face with their friends outside of school (Lenhart et al., 2007). The study focused on youth between the ages of 12 and 17. The youth reported spending 10.3 hours a week with friends doing social activities outside of the school environment and an average of 7.8 hours talking with friends enabled through technology that included the mobile phone, telephone and internet. The telephone still trumps all forms of communication. As a written form of communication instant messaging consistently beats email, as well as text messaging, as the method of choice (Lenhart et al., 2007). Similarly, Livingstone and Bovil (2000), in their study with children aged 6-17, found that CMC does not necessarily challenge face-to-face conversation but adds another dimension to young people's social worlds and offers more variety in terms of the various communication modes available. Email does provide a valuable supplement to face-to-face communication in certain situations and it appears that this medium is displacing non-media activities. Livingstone and Bovil's (2000) overall impression is that children combine media and face-to-face interaction, indoor and outdoor activities, time with friends, time with family and time alone. Although this study was published a decade ago and may need to be updated, these findings indicate that new types of media are not displacing face-to-face interaction.

Hampton and Wellman (2003) and Herring (2004) have shown that CMC complements and supplements other modes of communication. Hampton and Wellman's study indicates that close neighbors in a wired neighborhood used CMC technologies to supplement and complement face-to-face interactions. The wired neighborhood in their study (called Netville) is a suburb in Canada that consists of 109 detached, closely spaced, single family homes equipped with advanced information and communication technologies. Additionally, Wellman et al. (1996) mention that computer networks link people and thus become social networks in this manner. Furthermore, CMC appears to be more uninhibited, creative and blunt than in-person communication. It appears that CMC still has the potential to sustain strong, intermediate and weak ties. Individuals who spend a significant amount of time online have more, not fewer social contacts and email may foster more open communication with friends and family than what would otherwise take place. Likewise, Boase, Horrigan, Wellman and Raine (2006) show that an increase in internet usage is associated with increases in other modes of communication. Thus, their data suggest that the use of new technology is not

leading to the replacement of previous modes of communication but rather provides a contrasting alternative to the usual face-to-face interaction environment (Bargh & McKenna, 2004). In addition, Anderson and Tracy (2001) demonstrate that there is no evidence that individuals who have internet access are spending less time watching television, reading, listening to radio or engaged in social activities in comparison to individuals who do not have internet access at home. However, there is an increase in time spent emailing and web surfing for individuals who do have internet access at home.

Boase (2008) found that the internet and email play an important role in maintaining social networks. Rather than conflicting with people's community ties, he found that the internet complements face-to-face and phone encounters. With the help of the internet people are able to maintain active contact with large social networks. E-mail supplements rather than replaces the communication that people have with those close to them. A study conducted by Activmedia (1998) supports these findings. The results, presented by Activmedia and Boase (2008) suggest that rather than changing relationships negatively, "communication technology via the internet is embedded in social networks as part of a larger communication system that individuals use to stay socially connected" (Boase, 2008, p. 490). In addition, the study found that the internet is used to maintain and support social relationships. The internet does not stand alone but is part of an overall communication system in which people use many means to communicate. Internet usage does not lead to the replacement of old technology, but rather provides consumers with additional choices (Livingstone, 2004; Lo & Lie, 2008). Similarly Trevino, Webster and Stein (2000) and Wellman et al. (2001) conclude from their reviews that users of the internet do not use e-mail as a substitute for face-to-face and telephone contact, but instead use it to help maintain longer distance relationships.

Misuro, Stec, Thomas and Yurasko (n.d.) and Nyland (2007) findings reflect a lack of evidence for the theory of displacement. Misuro et al. indicate that their study did not find support for the displacement theory with regards to the internet and traditional media. These authors thus conclude that internet usage will not displace or substitute other media usage. Similarly, Nyland (2007) demonstrates that participants had negative feelings regarding the research question of whether the use of social networking had caused a displacement in the use of alternative media. Results indicate that 88% of social networking users claimed that their use of the medium had not changed their amount of face-to-face interaction, with 6% claiming that they had used it more and 6% claiming that they had used it less. Nyland (2007) concludes that social networking may just be the newest form of diversionary media. Diversionary media is defined as media that offers relaxation or diversion and as a result does not offer any threat of displacement. Furthermore, that it does not appear that social networking will replace face-to-face interaction in the near future. The author states that it is difficult to determine if social networking sites are just a 'one hit wonder', or whether they represent a truly new form of CMC. Nyland (2007) also cautions that social networking may

have a displacement effect for some media because individuals may replace their e-mail use with the messaging features that are available through internet social networking sites.

Finally, as mentioned before, social networking research is still in its infancy in South Africa. Allen (2010) identified that age, gender and access to technology influences social networking use amongst young professionals. In a web based study comprising of 98 respondents it was established that women use social networking sites more often, but men are more likely to use it for work related reasons. Furthermore, social networking becomes more work related as the respondent's age. It was also found that not having access to technology is a strong indicator of social networking usage but not a significant characteristic (Allen, 2010). Similarly, in a series of attitudinal statements in a survey conducted worldwide, including South Africa, Synovate (2008) asked whether people agreed or disagreed with statements about communication, language and friendship. Synovate's sample consisted of over 13 000 respondents aged 18-65 in 17 markets around the world. Social networking users have a balanced on- and off-line existence. It seems that the virtual world of social networking can complement relationships, but not replace them. There seems to be no substitute for real life, real friends and real relationships. The following specific findings emerged from this study:

- 40% of people who engage in social networking agree that online communication can be just as meaningful as face-to-face communication. 41% of South Africans surveyed shared this sentiment.
- Participants were asked if they agree with the statement that 'Online social networking is better than not interacting at all'. Members of social networking sites are far more likely to agree (75%) with this statement than non-members (51%). Half of the South Africans interviewed agreed with this statement.
- Among social networking users in the markets surveyed, almost half (46%) agree that it is easier to make friends online than in person. 47% of South Africans surveyed supported this statement.
- 30% of South Africans agreed that they had more friends online than they have in the 'real' world.
- 78% percent of social networking users agree that people are better off doing outdoor activities than spending time in front of a computer. This is extremely relevant to the current research question of whether social networking is substituting face-to-face interaction and indicates that individuals still prefer to be outside and socializing rather than spending time on the computer.

2. 2. 7 **Research concerning the Dystopian viewpoint of computer mediated communication**

Each new technological innovation in communications over the past 20 years has been met with many issues and concerns about its potential to weaken community ties and negatively impact relationships (Bargh & McKenna, 2004). Before the advent of the internet concerns had been raised about technologies such as the telegraph, telephone, radio, cinema and television. Individuals were initially sceptical about the utilization of the internet to create meaningful social relationships due to anonymity, lack of social and other cues and the lower social presence provided by the internet. They felt that time spent online could not replace time spent in face-to-face social interaction. The main concerns about the utilization of the internet revolved around whether internet use would increase or decrease sociability, thus debating whether the internet exerts a negative impact on user's human relationships or whether it serves to reinforce these relationships (Di Gennaro & Dutton, 2007).

In the transition to the information and communication age, isolation and alienation has increased due to the social and technological changes associated with the industrialization at the turn of the twentieth century (Stern, 2008). The number of people spending time online is increasing and CMC is replacing other leisure-time activities. CMC allows people to experiment with their identity, form meaningful relationships and express themselves (Herring, 2004). However, some researchers worry that excessive use of CMC could lead to addiction, depression and alienation from face-to-face relationships. It is argued that interpersonal communication via the computer leads to task orientation, lack of humanity, lack of affection in messages and impersonal, shallow and even hostile communication (Kang, 2007; Kraut et al., 1998; Lin et al., 2007; Moody, 2001; Morahan-Martin & Schumacher 2003; Nie & Erbring, 2000).

According to Kraut et al. (1998) and Nie and Erbring (2000) the internet may induce anomie and decrease or negatively influence social capital as users retreat into a make believe or artificial world. Kraut et al. studied 169 families and found increased loneliness resulting from internet use. Participants allowed researchers to monitor their internet use and provided a self-report of their social and psychological characteristics before commencing with the internet use. Participants' reports of loneliness at the beginning of the study did not predict internet use, but greater internet use was associated with increased loneliness. This finding can be attributed to a decrease in family communication, social activities, happiness and the number of individuals in one's social network. It stands to reason that the internet will substitute certain activities (DiMaggio et al., 2001). Similarly, Nie and Erbring (2000) surveyed internet users online and asked how the internet had changed their lives. Their findings indicate that most people reported no change, but heavier users reported changes in

socializing, media use and other activities. Heavy users are defined as individuals that are on the internet at least 10 hours per week, whereas moderate users are individuals that spend between 5-10 hours on the internet per week. In addition, moderate to heavy user individuals that substitute e-mail for telephone contact reported a loss of contact with the social environment (Nie & Erbring, 2000).

Wellman et al. (2001) found that people's interaction online supplements their face-to-face and telephone communication without increasing or decreasing it. Similarly e-mail is displacing telephone use to a certain extent. The evidence suggests that the internet is becoming normalized as it is incorporated into the routine practices of everyday life (Herring, 2004; Wellman et al., 2001). This substantiates Bargh and McKenna's (2004) findings. Bargh and McKenna found that time spent on the internet, whether communicating or surfing, results in individuals being away from their family and friends. This results in depression and loneliness for the individual user, and further weakens neighborhood and community ties. Donath and Boyd (2004) hypothesize that the number of strong ties an individual can maintain is not greatly increased by communication technology, even though such technologies may decrease the importance of physical proximity. However, they assert that the number of weak ties one can form and maintain may be able to increase substantially, because the inexpensive and uncomplicated nature of the new communication technology makes it ideal for these ties. These findings are in accordance with those of Hampton and Wellman (2003).

Peter and Valkenburg (2006) conducted a survey among 687 adolescents examining the extent to which their perceptions of internet communication differ. The study also investigated the background variables underlying these different perceptions. Peter and Valkenburg (2006) also focused on the adolescents' perceptions of the controllability, breadth, reciprocity and depth of internet communication as compared to face-to-face communication. They found that younger, lonely and socially anxious adolescents value the controllability of internet communication and perceive internet communication to be broader, deeper and more reciprocal than their older, less social anxious and less lonely counterparts. The study also found that boys perceive internet communication to be more reciprocal than girls do. Peter and Valkenburg (2006) regard communication via the internet as being perceived as deeper than face-to-face communication when the adolescents have a great need and desire for affiliation. This supports Moody's (2001) findings that indicate that the internet can decrease social well-being. Moody also found a relationship between the internet and loneliness, with individuals who spend more time online exhibiting higher emotional loneliness. Lonely individuals may be drawn online because of the increased potential for companionship and the changed online social interaction patterns. Lonely individuals can also use the internet as a way to regulate and control the negative moods associated with loneliness (Moody, 2001). In addition, Morahan-Martin and Schumacher (2003) indicate that loneliness can be a

byproduct of excessive internet use. Individuals are interacting online and investing time in online relationships, which are artificial and weak, at the expense of real life relationships. “Online communication has the ability to foster technological alienation” (Morahan-Martin & Schumacher, 2003, p. 660), creating barriers between individuals, even for individuals that know one another in other real world settings.

The data from a study by Stern (2008) suggest a somewhat more nuanced and complex relationship between internet usage and modes of communication. The findings show that the more people use the internet, the more likely they are to use e-mail as a predominant mode of communication for their three closest friends, regardless of whether these ties are local or non-local. This finding was obviously only true for respondents who were highly proficient in internet usage. In addition, a similar relationship was found for the telephone. Only the most proficient internet users displayed a reduced use of the telephone to correspond with their increased internet usage. However, as the degree to which respondents use the internet increases, the use of face-to-face communication as the predominant mode of communication decreases, regardless of whether the individual is internet proficient or not. As a result, “there is no need to further explore the replacement/displacement hypothesis” (Stern, 2008, p. 609) because Stern’s findings support the displacement hypothesis. This is highly relevant for the present study as certain individuals are more proficient in the utilization of Facebook than others and it would be incorrect to assume that all respondents use Facebook in the same manner. However, Stern (2008) asserts that, regardless of proficiency, as internet use increases face-to-face communication decreases. This provides support for the displacement theory. Following this logic it would seem that as Facebook use increases, face-to-face interaction decreases.

The information and findings presented in this section corroborate with the concept of “cocooning” (Treur & Belote, 1997, p. 25), which suggests that individuals retreat into the isolation of their computers and avoid collective activities and social involvement. Instead individuals are “content with self-gratifying internet entertainment” (Treur & Belote, 1997, p. 25). The illusion of personal involvement through discussion groups, virtual communication, aliases and other links can replace face-to-face interactions (Lloyd, Dean & Cooper, 2007; Treur & Belote). Thus, Facebook may create the illusion of social relationships, social involvement and social communication.

2.3 Affinity

Various studies have focused on the potential for addictive behavior in relation to the internet (Chou & Hsiao, 2000; Song, LaRose, Eastin & Lin, 2004). It has been suggested that internet dependency is quite prevalent and “internet addiction has been identified as a pathological

behavior even though the symptoms of the foregoing may be found in the normal population” (Song et al., 2004, p. 384). The term deficient internet self-regulation is a more appropriate description than addiction because it allows for a range of behaviors (Song et al., 2004).

Chou and Hsiao (2000) showed in their study of internet addiction on Taiwan’s college students that internet addicts spend almost triple the number of hours on the internet as opposed to their non-addicted counterparts. It was shown that the most powerful predictor of internet addiction was the self-reported communication pleasure experience of the respondents, followed by hours of use. Students that were addicted in the study of Chou and Hsiao (2000) asserted that studying and aspects in their daily routines, for example eating, sleeping, class attendance, and so forth were affected negatively. However, ratings concerning relationships with friends were rated positively, and it was shown that the “the internet is indeed the window through which students communicate and interact with the world” (Chou & Hsiao, 2000, p. 78). This agrees with Song et al.’s (2004) findings who provided basic support that there is a relationship between habitual internet use and moderate internet addictions among normal populations of users. The relationship between internet addiction and gratifications were assessed and it was found that media usage behavior becomes habituated by repeated association with gratifying experiences that may result from obtaining a desired fulfillment from the internet (Song et al., 2004).

Facebook addiction can be classified under internet addiction or internet overuse (Fenichel, 2009) and academic literature pertaining to Facebook addiction could not be found. However, psychologist, Dr. Michal Fenichel, is now probing Facebook Addiction Disorder (FAD). He describes Facebook addiction as when Facebook usage overhauls daily routines like waking up, getting dressed, using the telephone, and so forth. Essentially, he asserts that people aren’t noticing how much time and energy (at home, at work and on the move) they are devoting to Facebook (Fenichel, 2009). If not actually addicted, people seem to exhibit a strong affinity towards Facebook. Conceptually, the strong affinity individuals’ exhibit towards Facebook could be a form of addiction or an antecedent stage of addiction, just like the strong affinity individuals exhibit towards the internet may be a precursor to internet addiction (Ferguson et al., 2007). However, the term addiction might be an exaggerated description of simple affinity (Ferguson et al., 2007).

2.4 Previous research pertaining to social networking websites

Social networking sites such as Facebook have become so popular in such a short amount of time because they “enable users to forgo the exertion that physical relationships entail” (Houston & Sichler, 2007, p. 3). Facebook, and online social networking in general, is a relatively new phenomenon and there have been very few conclusive studies or findings on

the social, cultural and economic impact of online social networking (Hinduja & Patchin, 2008; Houston & Sichler, 2007). However, scholars from a wide array of disciplines have examined social networking sites in order to understand the practices, implications, culture and meaning of the sites and the manner in which users engage with these sites (Boyd, 2004; Boyd & Ellison, 2008; Charnigo & Barnett-Ellis, 2007). Evidence suggests that the nature of physical real-world relationships and interactions is changing because of these social networking sites (Hargittai, 2008; Houston & Sichler, 2007; Romm, Pliskin & Clarke, 1997). The fact that these social networking sites are growing in popularity provides a vibrant new research context for many researchers (Boyd & Ellison, 2008; Charnigo & Barnett-Ellis, 2007).

Previous scholarship on social networking emerges from a wide array of disciplinary and methodological practices. Furthermore the research pertaining to social networking sites addresses a range of topics and builds on CMC research (Boyd & Ellison, 2008). The collection of studies indicates that social networking sites play a significant role in the lives of users and are therefore a worthy research topic (Boyd & Ellison). Acquisti and Gross (2006) and Lenhart and Madden (2005) assert that online social networking such as Facebook has moved from a “niche phenomenon - to mass adoption” (Acquisti & Gross, 2006, p. 1).

2. 4. 1 Identity construction on social networking websites

Management studies have shown that individuals consciously construct an online representation of themselves and users’ self-representations are accurate to varying degrees. Individuals describe themselves in certain ways. Individuals might include their hobbies, music preferences, birthday or favourite things (Boyd, 2004; Boyd & Ellison, 2008; Zhao et al., 2008).

Zhao et al. (2008) conducted a content analysis based on 63 Facebook accounts and found that identities produced in environments that are not anonymous differ from those constructed in an anonymous online environment. This implies that individuals differ in their identity construction in anonymous online environments such as chat rooms compared to other online environments such as Facebook where an individual is required to reveal his/her name. The lack of anonymity in the online environment seems to make people more honest about themselves or make them more real (Zhao et al., 2008). Furthermore, Facebook users tend to claim their identities implicitly rather than explicitly. Thus, their identity is constructed by the impressions ‘given off’ by the user instead of through explicit identity statements such as autobiographic descriptors. Users also tend to show rather than tell. This implies that they mediate the description of themselves visually and showcase themselves indirectly through friend lists, photo albums, wall posts and collages. The result is that the appeal is to the likeability of the crowd as much as it is to the personal characteristics of the user.

This confirms the findings of Walther, Van der Heide, Kim, Westerman and Tong (2008) who explored how cues from social partners on one's online network affect observers' impressions of the profile owner. In their research of Facebook they found that profile owners' friends' attractiveness affected their own in an assimilative pattern. Favourable or unfavourable statements about the target were found to interact with gender, such that a negative message about certain moral behaviors increases male profile owners perceived physical attractiveness but decreases female profile owners perceived attractiveness. The physical attractiveness of one's friends' photos (as seen on the postings on another friend's wall) had a significant effect on the perceived physical attractiveness of the profile owner. The study thus emphasizes group and consumer identities over personally narrated identities. This argument sees identity as a social product not an individual characteristic. This viewpoint might be a result of youth culture, the campus setting with its dense possibilities for off-line socializing and the distinct features of Facebook (Zhao et al., 2008). Youth culture and campus setting might be particularly pertinent as the study involved student participants (Zhao et al., 2008).

An ethnographic study conducted by Boyd (2004) examined the impressions that individuals form on social networking sites. Using Friendster, a social networking site, the study mentions that users present different information depending on the audience. Users present themselves based on the "balance between their public and private dimension" (Boyd, 2004, p. 2). Furthermore, many users construct fake personas, by for example calling themselves Homer Simpson or Love Guru. Boyd refers to these users as "Fakesters" (Boyd, 2004, p. 3). These findings support findings by Williams (2008) and Zhao et al. (2008) that indicate that a characteristic of Facebook and Myspace is the use of popular culture icons, music, catch phrases, text clips and film clips in fragmented, postmodern collages. Zhao et al. (2008) refer to this collage as the "youth culture" (p. 1826). According to Williams (2008) this illustrates how popular cultural practices form part of and is adopted by online technologies.

2. 4. 2 Profiles

The profiles of social networking users provide a rich source of naturalistic data (Boyd & Ellison, 2008; Ellison et al., 2007). Ellison et al. explored whether a relationship exists between profile elements and number of Facebook friends. The findings suggest that profile fields that reduce transaction costs (i.e. profile fields that reduce the cost of searching for common referents) and are harder to falsify are most likely to be associated with larger numbers of friendship connections (Boyd & Ellison, 2008; Ellison et al., 2007). Subsequent interaction and communication is mediated by allowing users to search for people according

to specific fields, for example university or high school attended, which ensures more friendship links.

2. 4. 3 Social networking websites and academic institutions

Scholars have also documented the implications of social networking usage with respect to schools, universities and libraries (Boyd & Ellison, 2008). Hewitt and Forte (2006) used surveys to examine student/faculty relationships in the online community in the USA. The students surveyed were asked how they felt about having professors on Facebook. The researchers found that Facebook has become popular at academic institutions, but that one third of the students they surveyed did not believe that faculty should be present on Facebook. Furthermore, contact on Facebook had no impact on students' rating of professors.

2. 4. 4 Social networking websites and personal identifying information

Acquisti and Gross (2006) found that the users of most social networking sites provide a wealth of private and identifying information. This information includes events attended, hometown, high school and pictures. In addition, Govani and Pashley (2005) found that although most students are aware of the possible consequences of providing personal information, such as stalking and bullying, they continue to provide the information. Dwyer, Hiltz and Passerinin (2007) found that Facebook members use the site to manage relationships initiated off-line. Furthermore, trust is not as important in online interactions as it is in face-to-face encounters. Online relationships can develop on sites where perceived trust and privacy safeguards are weak (Dwyer et al., 2007). In contrast to these findings, Hinduja and Patchin (2008) indicate that their study found that personal information disclosure on MySpace may not be as widespread as assumed and that the majority of individuals are using the website responsibly.

2. 4. 5 Social networking websites and social relationships

Studies have shown that most social networking sites primarily support pre-existing social relations (Boyd, 2004; Boyd & Ellison, 2008; Ellison et al., 2007). According to Ellison et al., Facebook enhances and maintains existing off-line relationships and connections but is not often used to meet new people. Although the relationships might only have weak ties, such as

shared class at school, they nevertheless do share some common off-line element (Boyd & Ellison, 2008). Similarly, Boyd (2004) mentions that the social networking site Friendster is used mainly to reconnect with long lost friends and to build one's network, thus it involves looking for people that one already knows. Boyd mentions that although Friendster users are using the site to socialize with their friends, many are using it for its intended purpose of dating. Similarly, in their analysis of 362 million messages exchanged by 4.2 million Facebook users during a 26-month period, Golder et al. (2007) demonstrate that students are not using Facebook on weekends as much as during the week. This is inconsistent with the 'displacement' model of internet use that hypothesizes that the more time individuals spend on the internet the less sociable they are. The information in this study indicates that Facebook does not have a negative effect on socializing. Instead, students use Facebook more on weekdays when they need to study or do schoolwork (Golder et al., 2007).

In contrast, Lloyd et al. (2007) found that Facebook has a negative effect on peer relationships. The study found that although Facebook provides students with an opportunity to connect with one another, it does not allow the development of relationships as fully or deeply as direct contact would. This may be because students use Facebook as a substitute for direct contact or because it does not promote independence as much as other forms of contact. This agrees with Donath and Boyd's (2004) findings. The authors hypothesize that "social networking sites may not increase the number of strong ties a person has, but could increase the number of weak ties due to the fact that they can be maintained easily and cheaply" (Donath & Boyd, 2004, p. 80). Additionally, Nyland, Marvez and Beck (2007) found that high users of social networking sites feel less socially involved with the community around them. However, it is difficult to determine causality. It is possible that those people who feel a lack of connection to their community are more likely to use social networking tools in a quest to create that connection. The results demonstrate that individuals withdraw from the environment around them. This supports the theories of cocooning and displacement mentioned previously.

2. 4. 6 Knowledge about social networking websites

Synovate's (2008) findings reveal that across the 17 markets surveyed, 42% of people know what online social networking is, which implies that 58% are uneducated regarding the social networking phenomenon (they either responded 'no' or 'don't know'). In South Africa, only one fifth of the people surveyed indicated that they know what online social networking is. It is possible that researchers are overestimating this so called social networking phenomenon and only using samples that are more likely to be using social networking sites. These samples would include individuals from higher socio-economic classes and tertiary education institutions. This finding is very relevant in South Africa as South Africa's internet usage,

technology availability and technology innovations are not in keeping with international standards. Many South Africans do not have access to the internet. Therefore, it is important that caution be used when attempting to generalize international internet social networking findings to the South African context.

Ofcom's (2008) qualitative research report found that individuals that utilize social networking fall into five distinct groups. These groups differ in their attitudes to social networking sites and in their online social networking behaviour. The groups are:

- Alpha Socialisers – people who use sites to flirt, meet new people and be entertained. This is a minority group.
- Attention Seekers – people who crave attention and comments from others. Attention Seekers often post photos and customize their profiles. A significant portion of people belong to this group.
- Followers – people who join sites to keep up with what their peers are doing. Many individuals belong to this group.
- Faithfuls – people who typically use social networking sites to rekindle old friendships that originated in school or university. Many individuals belong to this group.
- Functionals – people who use the site for one particular purpose. This is a minority group.

In addition Ofcom (2008) define the following benefits of social networking sites:

- A fun and engaging leisure activity;
- An efficient way to manage existing relationships;
- A way to link up with old friends;
- A tool to build confidence;
- An opportunity to adopt a different persona;
- A way to build new relationships; and
- A way to gain support for charitable causes.

According to Ofcom (2008) the drawbacks of social networking sites are:

- Spending too much time on these sites;
- Using profiles for self-promotion;
- Being contacted by old friends the respondents did not like;
- Other people using the sites to bully, lie, starting rumors and setting up artificial sites;
- House parties organized through social networking sites getting out of hand; and
- Issues relating to identity theft.

2.5 Previous Uses and Gratifications research

There are few studies that focus on identifying factors that affect consumer selection of a specific communication technology (Lo & Lie, 2008). It was the aim of the current study to determine if the same uses and gratifications mentioned in the section below exist in the sample examined. All social networking websites are based on a core set of assumptions (Donath & Boyd, 2004). These assumptions are:

- There is a need for people to make more connections;
- Using a network of existing connections is the best way to do so; and
- That making this easy to do is a great benefit.

Our connections with other people (social networks) have many important functions and “are sources of emotional and financial support, information about jobs, other people, and the world at large” (Donath & Boyd, 2004, p. 71).

The perceived ease of use, the usefulness of the communication technology and network externality are all factors that affect the use and acceptance of new communication technologies. Additionally, the ability to facilitate friendship development, the personalization of communication and a sense of connection to one's community directly affects the usage of communication technology (Lo & Lie, 2008). Thus, “academic consensus has shifted from viewing the online world as an exotic space set apart from online reality and which is hostile to the formation of meaningful social relationships” (Di Gennaro & Dutton, 2007, p. 594), towards the sentiment that the online world is a new context for significant social relationships that are intertwined with the off-line world (Di Gennaro & Dutton).

According to Di Gennaro and Dutton (2007) and Raacke and Bonds-Raacke (2008) the popularity of social networking sites, combined with the amount of time users spend on these sites, indicates that the sites must be meeting users' personal and social needs. One way to explore the needs associated with these sites is to apply the uses and gratifications theory (Raacke & Bonds-Raacke). The current study made use of this theory. Very few studies have previously investigated motivations for using social networking websites (De Souza & Dick, 2007). Bargh and McKenna (2004) assert that people are not passively affected by technology, but actively shape its use and influence. The internet has therefore been shaped into a powerful tool for the formation of social relationships (Di Gennaro & Dutton, 2007). The focus should not just be on whether adoption of the internet has consequences for sociability but rather on the ways that the technology is used and how the patterns of use can construct and reconfigure social networks.

Recently, studies have shown that the gratifications obtained from the internet include social interaction, with specific reference to social bonding and communication. In Japan the internet

is used for diversion, amusement and surveillance (Ishii & Ogasahara, 2007). However, the uses and gratifications of the internet are likely to differ between cultures. The information in Ishii and Ogasahara's (2007) study indicates that the internet may be culture specific, and that online communities can serve different functions in different cultural and social environments.

Ellison et al. (2007) indicate that Facebook usage and its association with social capital and psychological well-being might prove to be the most beneficial for users experiencing low self esteem and low life satisfaction. The research indicates that there is a strong relationship between Facebook and social capital (the resources accumulated through the relationships among people). Facebook is also beneficial in maintaining off-line relationships and more than 90% of registered users use Facebook for this purpose (Ellison et al., 2007). Ellison et al. also indicate that the engaged user uses Facebook to crystallize relationships that might otherwise remain ephemeral. In addition, the study found that internet use alone did not predict social capital accumulation, but that using Facebook intensely did.

Previous research on Facebook (Raacke & Bonds-Raacke, 2008) has indicated the following uses and gratifications of having a Facebook account. Some of these uses and gratifications are more accentuated than others.

- To keep in touch with old friends;
- To keep in touch with current friends;
- To make new friends;
- To look at and post pictures;
- To locate old friends;
- To learn about events;
- To post social functions;
- To feel connected;
- To share information about yourself;
- For academic purposes; and
- For dating purposes.

In addition, Govani and Pashley (2005) divided motivations for Facebook use into two groups. The first group includes reasons associated with peer pressure and friend recommendations. The second group focuses on the usefulness of Facebook for meeting new people, keeping in touch with friends, getting help on academic courses, finding old friends and making new friends. Students' reasons for joining fell into both categories. In their study De Souza and Dick (2007) demonstrate that users of MySpace use the website due to perceived ease of use, perceived usefulness, social pressure, curiosity and perceived enjoyment. Both extrinsic and intrinsic motivations are also important. These findings corroborate the findings of the Ofcom Report (2008). According to this report social

networking sites have the following uses: Look at campaigns and petitions; talk to people I don't know; listen to music / find out about bands; talk to people who are friends of friends; look at other peoples' sites without leaving a message; look for old friends I have lost touch with; talk to friends / family I rarely see and talk to friends / family I talk to a lot. Similarly, Dwyer et al. (2007) state that social networking sites are used to maintain relationships, share photos, update others on activities and whereabouts, get updates from friends, display a large social network, send messages privately, post public testimonials and present an idealized persona.

In addition, social networking websites provide adolescents with a venue to learn and refine the ability to exercise self control, to relate to others with tolerance and respect, to express sentiments in a healthy and normative manner and to engage in critical thinking and decision making (Hinduja & Patchin, 2008). Furthermore Lenhart and Madden (2005) found that older teens, particularly girls, are more likely to use these sites than their younger counterparts. For girls, social networking sites are places to reinforce pre-existing friendships. Boys tend to use the networking sites for flirting and making new friends. The study also noted that teenagers used the sites to stay in touch with friends you see a lot, stay in touch with friends you rarely see in person, make plans with your friends, make new friends and flirting. It would seem that social networking websites help teens manage their friendships.

Nyland (2007) found that three major factors or uses and gratifications are present in social networking, e-mail and face-to-face communication. The factors are gratification opportunities, social utility and entertainment. These factors are useful in helping to identify general areas of motivation for the use of each of these CMCs.

Dwyer (n.d.) conducted a qualitative study exploring participants' use of social networking sites and instant messenger to engage in interpersonal relationships. She found that the use of communications technology for social interaction is conducted and enhanced by multiple channels. Participants indicated that they use text messaging, instant messenger and social networking sites to maintain contact with friends and to make new friends. Dwyer (n.d.) also found that participants preferred electronic communication media to more traditional means of communication because it is convenient, easy to access, low cost and enjoyable. These findings confirm previous findings by Hampton and Wellman (2003) and Herring (2004).

In 2009 the researcher formed part of a qualitative research team at Ipsos Markinor, the institution at which she is currently employed. The research project investigated new media attitudes and behavior through the use of focus groups. The population under investigation was youth aged 12 to 18. The findings are summarized below.

- Participants are heavily involved with most of the new media and they claim that it does not affect their behavior or attitudes in any way. However, the use of projective

techniques such as picture collages indicated that teenagers are more affected by the media than they care to admit. It appears that that media plays a role in the formation of children's social identity. Additionally, the older the participants the less involved they were with the hype concerning the new media.

- Television is the most popular media, with all participants making use of this media. This corroborates the findings of Livingstone (2004).
- Radio seems to be losing popularity and most respondents opt for their own pre-selected music through the utilization of gadgets such as iPods, MP3 players and their cell phones. This supports the findings of Ferguson et al. (2007).
- Cell phones are the most cherished gadgets. Cell phones are viewed as a multipurpose tool which enables internet access, taking photographs and playing music.
- The participants regard the internet as a 'new social media' and also as very 'in'. The internet is mainly seen as a source of information and most participants use it for schoolwork or to find out general information. However, the internet is also used for communication through social networking websites. The participants view social networking sites as serving a similar purpose to MXit. MXit is a mobile instant messenger application available only in South-Africa, and enables communication (also known as chatting) between numerous people, similar to the setting of a chat room (Thomas, 2006). The participants assert that Facebook is the most popular of the social networking sites. Facebook is used to connect with old school friends or friends/family that live far away. Participants also use Facebook to find out about events and parties. These findings echo the findings in the study by Raacke and Bonds-Raacke (2008). Participants regard communicating via chat rooms as taboo and immoral. Chat rooms are seen as places where sex offenders hang out and where people lie about their appearance and how old they are. Participants report that they do not make use of chat rooms often.
- Participants mentioned that procrastination and laziness might result from media use. Participants indicated that they used to be more active before becoming involved with the new media. This contrasts with Lenhart et al.'s (2007) findings that showed that children who use the internet still prefer outside active activities. It also contradicts Livingstone and Bovill's (2000) findings that suggest that children have a balance between indoor and outdoor activities, electronic and face-to-face communication and time alone and time with family and friends. Additionally, the language that participants use when communicating via typing mediums such as MXit and Facebook is seen as a skill. Participants can type more creative and shorter

messages and many admit that they sometimes use this jargon when writing academically at school.

In addition, Dainton and Zelley (2005) and Roberts, Hendrikson and Foehr (2004) mention that all mass media fulfills four common needs in humans:

- entertainment,
- information,
- personal identity, and
- personal relationships or social interaction.

The information presented in this chapter indicates that there is consensus among researchers that social networking sites such as Facebook fulfill certain needs for users. In addition, many researchers agree on the needs that are met, although they differ on the articulation of certain uses. This argument supports the aim of the present study, i.e. to determine the uses and gratifications within the South African context and investigate the relationship between the findings and international findings. Similarly, the study aimed to accentuate patterns of social networking use.

In addition, the current study attempts to answer the question of whether Facebook is becoming a self-reported substitute for face-to-face interaction. The literature reviewed suggests that Facebook is not a substitute for face-to-face interaction but that it provides communication consumers with additional choices and paves the way for communication enhancement. Many authors do suggest that CMC is a substitute for face-to-face interaction. However, this assumption was prominent during the emergence of CMC technologies. Researchers initially assumed that communication via the computer would be detrimental. However, over time consensus has shifted towards an awareness that CMC (if used in moderation) can be beneficial.

2.6 Conclusion

To conclude, the main arguments of the chapter can be summarized as the following:

- In the past decade CMC has emerged as a new type of communication medium. Reasons for CMC's acceptance, popularity and rapid evolution revolve around the fact that it is fast, easy, inexpensive and convenient. Today, many CMC media are available.
- Researchers have been skeptical of CMC and its impact on relationships, loneliness and communication in general. There is debate over whether this impact is positive, negative or neutral.

- Recent findings indicate that CMC's impact on individuals should not be viewed in isolation. Instead, the impact is dependent on circumstances, context, individuals and the type of CMC medium.
- Facebook can be seen as a new type of CMC where individuals can communicate with one another on a global stage. Facebook also facilitates activities other than communication.
- Different media offer different uses to individuals and individuals utilize media for certain needs. It is important to determine the uses and gratifications associated with each type of media. Understanding a media's uses and gratifications can help researchers to understand the impact that CMC has on individuals.

The next chapter focuses on the theoretical underpinning of the study. The theoretical perspective from which the findings were interpreted, understood and conducted is discussed and reference is made to the epistemology and ontology of the study.

CHAPTER 3

Theoretical point of departure

1.1 Introduction

This chapter explores theories in relation to the topic of Facebook. Reference is made to the epistemology as well as the relevant ontology. Epistemology refers to the origin, limits, methods and nature of human knowledge whereas ontology refers to the framework of the research or the view of the nature of reality. Ontology refers to what the observer can know whereas the epistemology refers to how the observer can know (Nel, 2007). Nel asserts that ontology precedes epistemology as the researcher first needs to identify a world or target (ontology) for the study before he or she can acquire any other additional information about or from the target (epistemology).

In the first part of the chapter the critical realism, theoretical framework of the study, is described. The second part of the chapter focuses on two media theories that were applied to the findings of the study. These theories are not paradigms like post-positivism and critical realism but are media theories or theoretical approaches that can be applied to and explain the findings of a specific phenomenon.

3.2 Theoretical framework

Critical realism forms the theoretical backdrop for this research. Key figures within this approach include David Hume, Karl Popper and Roy Bhaskar. Critical realism is one of the most common forms of post-positivism (Klein, 2004). The discussion below thus begins with an exploration of post-positivism before progressing to a discussion of critical realism.

3.2.1 History of post-positivism

Positivists assume a scientific stance and assert that science is the only way to arrive at the truth. Science deals only with what we can see and measure (empiricism). Positivists argue that science is the only way to predict and control phenomena (Greenfield, Greene & Johanson, 2007; Trochim, 2006).

Post-positivists such as Karl Popper, Thomas Kuhn and Charles Hanson propose a different view of the truth (Clark, 1998; Greenfield et al., 2007). Post-positivism is a philosophical

position that arose from positivism and replaced it to a certain extent. Post-positivism views itself as developing from the ruins of the collapsed positivistic approach (Clark, 1998; Fisher, 1998; Greenfield et al., 2007). This assertion seems to deny the fact that positivism remains a strong philosophical viewpoint. However, what is important is that social scientists became aware that positivism was restrictive. The scientific stance was 'limiting' and its assumptions restricted the exploration of phenomena.

Essentially, researchers became frustrated by positivism's imposition of certain research methods (Fisher, 1998; Greenfield et al., 2007). In response to this frustration a more diverse and less unified approach, namely post-positivism, was developed. This new approach encompassed the 'social' element of social sciences. The approach was conceived as a solution to the positivist epistemological problem of not recognising social context. Post-positivism marks a turn from a traditional understanding of scientific proof to a contextual understanding of social inquiry (Fisher, 1998). Therefore, although positivism has not collapsed completely and may never collapse for science as a whole, it did collapse for social sciences in this specific space and time. Positivism's strong emphasis on empiricism left little space for other unempirical, yet equally valid, explanations. Greenfield et al. (2007) assert that human nature is too multidimensional and unpredictable to be explained through the single cause and effect perspective of positivism. Thus, new avenues of inquiry had to be developed in an attempt to understand human nature. The post positivist viewpoint allows for the understanding of human experience in terms of the importance of contextual and temporal factors.

Post-positivism asserts that metaphysical considerations remain the realm of positivism and science. However, a realist perspective of science is proposed. This perspective sees the unobservable as existing and impacting on observable phenomena. Thus, theoretical explanations are seen as having great comprehensive predictive value (Clark, 1998). In agreement with the positivists post-positivists advocate science as the means to acquire precision, logical reasoning and attention. However, for the post-positivists science is not confined only to that which can be directly perceived. Evidence can also be found in inferable forms such as the self-report inherent in interviews or questionnaires. This is relevant for the current study, which utilized self-report measures through the use of a survey design (Clark, 1998; Greenfield et al., 2007).

3.2.1.1 Assumptions

The post-positivist paradigm is characterized by the following assumptions (Clark, 1998; Fisher, 1998; Greenfield et al., 2007; Trochim, 2006):

- Similarity between common sense and science. This implies that no one form of observation is superior. In contrast, positivism considers only scientifically proven facts to be valid. Post-positivism gives equal importance to all observations, research studies and statements. This leads to the assumption that science and common sense are equally valid and therefore similar.
- Multiple perspectives. The assumption of multiple perspectives indicates that the same phenomenon can be observed, seen and interpreted in multiple ways by numerous researchers as a result of the different contextual and temporal factors inherent in each observation combined with the bias that each researcher brings to the table.
- Non-reductionist. The term reductionist refers to the practice of understanding complex things by reducing them to the sum of their parts. Reductionism also implies causality (Trochim, 2006; Whitley, 2002). Similarly, reductionist thought asserts that for every cause there is an effect and for every effect there is a cause. Therefore, by identifying either cause or effect reductionists' claim that it is possible to deduce the other (either cause or effect). Such explanations provide limited information because they ignore other factors that could have an influence on cause and effect. These factors might include temporal and social influences. In contrast, non-reductionist thinking holds that cause is not always linked directly to effect and vice versa. Instead, one effect could have numerous causes. Similarly, other factors that influence cause and effect, such as the social context, are taken into consideration.
- Research is broad. In post-positivism research is broad and encompasses an extensive range of topics and phenomena. This is in contrast to positivism where only variables that can be seen and measured can be researched.
- Theory and practice cannot be kept separate. In post-positivism the theory informs the practice, i.e. the application of knowledge. Post-positivist theory essentially informs the manner in which knowledge can be applied and the explanatory and predictive power of the knowledge generated.
- The subjective is a valid form of knowledge. Post-positivism acknowledges the power of the subjective and asserts that it is impossible for the researcher to stay objective and disregard his or her biases and preconceived ideas. Rather, biases and

preconceived ideas are seen as important and add insight and value to the research by further allowing the illumination and interpretation of phenomena.

- All people are capable of naming their own world and constructing knowledge. This assumption also concerns the subjective nature of knowledge. No one person is responsible or has superiority when studying phenomena. All individuals are seen as capable of describing and interpreting their own reality and equal importance is attached to all researchers and phenomena to be studied, whether the phenomena can be observed or not. This contrasts with the positivist view in which only scientific researchers may construct knowledge in relation to observable phenomena.
- Distinctions drawn between empirical methods and the qualitative paradigm cannot be based on the nature of data (i.e. non-numerical or numerical). Post-positivist research need not exclude qualitative (i.e. non-numerical) data or 'truths' found outside the quantitative method. This challenges the strict dichotomy often drawn between the qualitative and quantitative paradigms (Clark, 1998). Clark asserts that scientific and artistic exploration must remain distinctive. However, the truths innate within each paradigm, though essentially different in nature, are equally valid.

The hallmark of the post-positivist stance is that there is not one overall truth. Rather, truth is constructed through dialogue. Valid claims emerge as conflicting interpretations are discussed and negotiated among the members of a community. Furthermore the scientist is biased by his/her own cultural experiences and worldviews (Fisher, 1998; Greenfield et al., 2007; Trochim, 2006).

3.2.1.2 Relevance of post-positivism for the current study

The current study made use of a quantitative methodology and many would argue that this entails a positivist theoretical point of departure. Post-positivism and critical realism are more often associated with qualitative methodologies (Greenfield et al., 2007). However, the theoretical point of departure relates to the nature and objectives of the study and not only to the methodology. A positivist philosophy would have placed restrictions on the study whereas the post-positivist philosophy allowed for a fuller exploration.

Positivism asserts that the universe is deterministic. In this worldview universal laws, facts or knowledge are applicable and thus knowledge and science are objective. Positivists also assume there is a single, tangible reality (Greenfield et al., 2007). These assumptions are problematic for the current study due to the subjective nature of the knowledge generated and the assertion that the responses were true for a particular individual in a particular context and

time. The respondents' answers were also socially determined and constructed by contextual and temporal influences. It was not possible to access an objective reality due to the subjective nature of the results and the acknowledged influence and bias of myself. These assumptions are explored more fully in the section on critical realism.

Lastly, the study did not aim to predict or control Facebook in anyway. These aims would have been positivist in nature. Instead, an understanding of the subjective world that people construct about Facebook allows for multiple perspectives, interpretations and truths, thus generating a subjective valid form of knowledge. These multiple perspective forms and truths all contribute in their own way to arriving at an understanding of Facebook.

3.3.1 Critical realism

Critical realism accentuates a 'real' reality that is understandable as a probable and imperfect reality (Klein, 2004; Trochim, 2006). Critical realism thus believes that reality does exist and should be studied, but that we should remain critical of our ability to ever actually understand reality. Critical realism is capable of describing a world where change is essential. Reality is seen as existing independently of us and of our knowledge and/or perception of it. According to the critical realist the world of the social is composed of agents who are socially constructing and de-constructing their world and their acts within the world. This implies that researchers will always be biased by their own frames of references, observations and cultures. Objectivity loses its appeal and critical realists attempt to ensure rigorous data by triangulating across measures and observations. Although each of these sources is error laden together they can lead to a better understanding and description of reality (House, 1991; Klein, 2004; Patomaki & Wight, 2000; Trochim, 2006).

Baert (2005) asserts that the appeal of critical realism lies in the fact that it aims to establish social research as a scientific endeavour in many respects on par with the natural sciences. This is mediated by providing a critique of positivism, but avoiding the allure of relativism. Relativism asserts that there are no absolute truths and all explanations or conclusions are relative in terms of historical or cultural context. Relativism views all narratives as equally valid (Baert, 2005). This outlook allows for conclusions where 'anything goes' and all conclusions are considered equally valid and true.

Critical realism provides the social sciences with more explanatory devices. These superior explanatory devices are achieved because all the barriers to explanations, as mediated by other theories such as positivism, are disregarded due to their restricted ability to interpret and describe phenomena. Instead, phenomena are illuminated and both the scientific and critical potential for social research are emphasized. The scientific potential of critical realism refers to the fact that critical realists believe that there is an external reality that exists

independently of people's descriptions and the conditions under which people gain access to this reality. Critical realism also believes that scientists can gain access to this reality. However, the critical potential of critical realism insists that one must be critical of explanations or conclusions about phenomena, thus questioning the potential accuracy of truth claims. This means that while individuals should accept certain truth statements, they should be wary of regarding them as the absolute truth. People should always be open to alternative explanations. In this manner critical realism places itself on par with the natural sciences without relying too heavily on the concept of causality (Baert, 2005). According to the theory of causality conclusions are true if the premises on which they are based are true (Baert, 2005; Kemmerling, 2001).

In the past many researchers and individuals viewed the natural sciences and explanations or statements based on the natural sciences as more true and concrete than explanations based on the social sciences (Trochim, 2006; Whitley, 2002). This view emerged as a result of the natural sciences' use of the scientific method that supports the epistemological position of positivism (Whitley, 2002). Positivist explanations were seen as having more credibility and clout. However, this does not mean that the social sciences have not provided an equal number of accurate and valid findings that have improved comprehension of phenomena. Similarly, being on par with the natural sciences is an essential element of valid and true explanations.

3.3.1.1 Relevance of Critical Realism for the current study

The above discussion points to several reasons for the use of critical realism as the theoretical point of departure for this study. Multiple perspectives are apparent in Facebook usage. The existence of multiple perspectives refers to the understanding that no single reality exists that describes Facebook usage for all Facebook users. Instead, the reality of Facebook is different for each individual. From the point of view of critical realism this subjective knowledge is a valid form of knowledge as the information generated is valid for a particular individual in a particular context. Critical realism asserts that individuals are capable of naming their own world, thus explaining or making truth statements about their own world, as well as constructing knowledge about that world. Individuals were essentially provided with the opportunity to act as scientists and discoverers of truth with regards to Facebook. The individuals were therefore considered capable of identifying their Facebook usage patterns in the questionnaire. This is in keeping with the study's ontology, namely critical realism, which accentuates the dynamic nature of change and the awareness that reality might never be understood accurately.

It can be argued that critical realism and post-positivism best suit the research question due to the fact that these approaches acknowledge that knowledge is tied to factors such as culture, social status and political context. The approaches also assert that knowledge is dynamic and socially constructed and cannot be understood separately from culture (Fisher, 1998; Greenfield et al., 2007; Trochim, 2006). Thus, understanding the world as a stable or fixed entity is inadequate. Instead, the interpretative element of the knowledge and findings generated through this study is contextually bound. It also links to the fact that the findings will not be universally generalizable (Fisher, 1998; Greenfield et al., 2007; Trochim, 2006). In addition, the current study triangulated with previous uses and gratifications research (Nyland, 2007; Raacke & Bonds-Raacke, 2008) by focusing on the uses of websites. This triangulation ensured a more accurate description and representation of reality.

The sections that follow present two media theories that are relevant to the current study. The uses and gratifications theory is discussed first. This is followed by a discussion of the niche theory and the displacement hypothesis.

3.4 Media Theories

The following section describes two relevant media theories that were applied to the investigation of Facebook. Facebook is a type of media and it therefore made sense to use media theories to explain the phenomenon. The two approaches discussed below are not theories in the same way as critical realism and post-positivism. Instead these approaches explore ways of understanding that can be applied to the findings of this study. The use of these approaches provides a theoretical background in media studies for the current research.

3.4.1 Uses and gratifications theory

The uses and gratifications theory is the first media theory that was used in the current study. The following section discusses the relevance, history, assumptions and critique of the uses and gratifications theory.

3.4.1.1 Relevance of the uses and gratifications theory for the current study

Uses and gratifications theory was considered an appropriate theoretical foundation for an examination of the uses of Facebook due to the fact that this approach has previously been used to understand audiences' use of other types of media (Ferguson et al., 2007; Gentile & Walsh, 2002). De Vito (1994) states that uses and gratifications theory is one of the most influential theories in explaining and analyzing mass media. Many recent studies have made use of uses and gratifications theory to study media effects (De Souza & Dick, 2007; Di Gennaro & Dutton, 2007; Dwyer et al., 2007; Ellison et al., 2007; Ishii & Ogasahara, 2007; Nyland, 2007; Raacke & Bonds-Raacke, 2008). Uses and gratifications theory remains an influential theory of mass media.

3.4.1.2 History of uses and gratifications theory

The uses and gratifications approach was developed from the work of Katz, Blumer and Gurevich (1974) who criticized previous mass communication studies and approaches for being behaviourist and effect-driven. Prior to the development of uses and gratifications theory research was only concerned with observable behavior and the effects of mass communication. Katz et al. (1974) summarize the uses and gratifications of mass communication as involving: "(1) the social and psychological origins of (2) needs, which generate (3) expectations of (4) the mass media or other sources, which lead to (5) different patterns of media exposure (or engagement in other activities), resulting in (6) need gratifications and (7) other consequences, perhaps mostly unintended ones" (Katz et al., 1974, p.510). Katz et al. emphasize an alternative viewpoint and suggested a new focus that deviates from researching the effects of media content on audiences. Instead, the uses and gratifications approach explores audience motivations for attendance to media content. Particular focus is placed on determining the needs that are gratified through the use of a particular medium.

3.4.1.3 Assumptions of uses and gratifications theory

The uses and gratifications approach builds on the view that the social and psychological origin of needs generate expectations of mass media. This leads to differential patterns of media exposure. Gratification is one of the end results of these different patterns of exposure. The approach assumes that users are active and in control of the mass media, and have the ability to select their media. Furthermore, users have expectations about how a certain type of media may gratify his/her needs and his/her media consumption. Individuals who have similar personality characteristics, social roles, situational factors or experiences are expected to exhibit similar patterns of media consumption (Dainton & Zelle, 2005; De Vito, 1994; Morrison, 1979; Watson, 1998).

The uses and gratifications theory explores how individuals' use media and it therefore emphasizes the importance of the individual (Dainton & Zelle, 2005; Raacke & Bonds-Raacke, 2008; Watson, 1998). Uses and gratifications research is thus concerned with how individuals use media and the gratifications they expect to gain from the utilization of the media. The theory's main aim is to determine what people do with media and not what media does to people (Roberts & Bachen, 1981). Shah et al. (2001) state that research on media uses and gratifications may provide unique insights into the relationship between different patterns of new media use and production of social capital. Few media have the ability to fulfill all people's needs and people therefore select from among functional alternatives when choosing ways in which to gratify their needs (Ferguson & Perse, 2000). This study made use of the uses and gratification theory in relation to individuals' use of Facebook.

The main aim of face-to-face interaction is communication and Facebook is a communication tool that is a functional alternative to face-to-face interaction. People are likely to use Facebook for the same purposes as face-to-face interaction and this places Facebook in the role of a functional alternative to face-to-face interaction (Ferguson & Perse, 2000; Kayany & Yelsma, 2000). Individuals living in the age of technology tend to spend long hours at work and multitasking has become the norm. Individuals have little time at their disposal and may opt to use quick and efficient communication modes as opposed to face-to-face interaction, which requires more time, planning and effort. Facebook is not expected to completely replace face-to-face interaction, but the possibility of a substitution effect cannot be denied. It stands to reason that when individuals 'substitute' face-to-face interaction, they will only do so with certain individuals. This is because you cannot, for example, substitute face-to-face interaction with your life partner.

Globalization has made the world smaller through the advent of mass media such as the internet (especially Skype), TV and the telephone. These media forms allow individuals to communicate with one another at any time in any part of the world and individuals can also 'experience' all parts of the world by surfing the internet or watching shows on television. In this age of information Facebook has become another vehicle to convey communication and individual experiences to other parts of the world, thus ultimately increasing the perception of 'one' world.

In summary, the uses and gratification tradition is concerned with the collective and psychological derivation of needs. Users generate expectations of mass media or other sources which lead to differential patterns of media exposure for the user, and subsequently result in gratifications and other consequences (Roberts & Bachen, 1981).

3.4.1.4 Critique of uses and gratification theory

Ruggiero (2000) and Severin and Tankard (1997) provide the following criticisms of the uses and gratifications theory:

- It is non-theoretical in the sense that it is not a rigorous scientific theory but instead relies mostly on self-reports and it is simplistic to use self-reports to determine motives;
- It is vague in defining key concepts;
- It is nothing more than a data collection strategy;
- Very little has been done to explore the antecedents of gratifications sought and the social origin of the needs that the audience brings to the media;
- Often needs that people seek to fulfill through media use are inferred from questions about why they use the media, leading to the suspicion that the need was created by the media, or is a rationalization of the media use;
- Exposure to mass communication may not always be deliberate or purposeful - people make their way through use of media as if they are on 'automatic pilot'. The information presented indicates that much media use is habitual or ritualistic;
- Uniform effects are not the kind of thing the uses and gratifications approach can predict;
- It focuses too narrowly on the individual, i.e. it is individualistic in nature and relies on psychological concepts such as needs and neglects the social structure and the place of the media in that structure; and
- Some studies produce separate typologies of motives and research findings are not synthesized to produce a comprehensive theory.

Although the above criticisms are important the uses and gratifications approach can provide valuable information on the uses and gratifications of Facebook for its users. Similarly, Ruggiero (2000) asserts that the emergence of CMC has revived the significance and importance of the uses and gratifications theory due to the fact that it aids in the comprehension of new mass communication media, especially in the initial stages of the communication medium.

3.4.2 Niche theory

The theory of the niche is the second media theory that was used to interpret the findings of the current study. The following section discusses the relevance, history and assumptions of niche theory. Particular attention is paid to the displacement hypothesis, a subsection of niche theory.

3.4.2.1 Relevance of the niche theory for the current study

Niche theory emphasizes the amount of time individuals spend on different media types and has been used in previous research (Dimmick, 1997; Dimmick, Chen & Li, 2004; Nyland, 2007) to examine the competition between new and old media forms. Niche theory is also useful in examining the consequences of the risk of a new medium. It was therefore considered appropriate to make use of niche theory for the current study.

3.4.2.2 History

Niche theory's roots lie in population ecology. The theory essentially focuses on how species consume resources in an environment and how they interact. A population's niche refers to the space that it occupies in the environment. A niche thus includes the habits, habitat, food and mode of life of a particular population. Thus niche theory refers to the relationships between species and ultimately how species survive. As a result of competition, two similar species rarely occupy similar niches. Similar species compete for resources such as food and habitat and displace each other in such a manner that each takes possession of particular kinds of food, habits, habitats and modes of life in which it has an advantage over its competition. If two species within the environment have similar or overlapping niches (such as the preference for the same food) the inferior species will be forced to adapt their niche in order to survive (Nyland, 2007; Pennington, 2006).

Dimmick and Rothenbuhler (1984) were the first researchers to use the theory of the niche to explain competition between media in the environment and the competition of old communications media with new communications medium. It is this specific version of niche theory that was used in the current study.

3.4.2.3 Assumptions

The theory of the niche postulates that a new medium will compete with an older medium for consumer satisfaction, consumer time and ultimately consumer preference. The existence of competition indicates that the older media will be excluded, replaced or displaced. The new media will take on some of the tasks previously fulfilled by the old media. The most common consequence of competition is displacement (Dimmick et al., 2004). Displacement was the main focus of the current study.

In communication media niche theory helps explain why certain media displaces other media. When a new medium is introduced to a community, it competes with pre-existing media that fulfill a niche in meeting the needs of the community. When the old and new media serve the same function, the result is that one of them becomes secondary or irrelevant in meeting the particular needs of the community. This is a direct result of competition and is known as functional displacement. Functional displacement has direct repercussions on the existing media as it provides new solutions to old needs or meets more contemporary needs (Dimmick et al., 2004; Kayany & Yelsma, 2000).

3.4.2.4 Displacement hypothesis

There is an essentially reciprocal relationship between uses and gratifications theory and the theory of the niche. By determining the uses and gratifications of a communication medium researchers can determine the niche that communication medium is occupying. Thus, if face-to-face interaction and Facebook are occupying the same niche they will be in competition. This could lead to the possibility of displacements. However, if face-to-face interaction and Facebook have different uses and gratifications then they will not occupy the same niche and will therefore not be in competition.

The displacement effect gained momentum with the arrival of the television. Researchers argued that even though television might not replace radio, it would certainly displace it. This is indicative of a shift in audience use towards the margins of the new media, away from the formally dominant media (Misuro, Stec, Thomas & Yurasko, n.d.; Watson, 1998). This shift is referred to as the displacement effect.

Media and activities are displaced because people only have a limited amount of time to spend on the utilization of different media. Displacement theorists argue that consumption of different media is driven by a zero sum game in the competition of audience and revenue resources. This means that the utilization of a particular medium leads to a reduction in the amount of time the individual spends on another medium. The introduction of a new medium reduces the amount of time individuals allocate to existing media, ultimately leading to the displacement of such media (Dutta-Bergman, 2004; James et al., 1995; Misuro et al., n.d.). This is known as time displacement. This concept is relevant to the current study as the study aimed to determine whether Facebook use is replacing or displacing face-to-face interaction.

The displacement effect exists in conjunction with the theory of the niche. One of the main aims of the study was to determine whether Facebook usage displaces face-to-face interaction. It is beyond the scope of this mini-dissertation to determine whether the particular displacement that occurs is time displacement or functional displacement.

3.5 Conclusion

This chapter discussed critical realism, the post-positivist theory that forms the theoretical backdrop of the study. Two media theories were then discussed in relation to the current study. The media theories outlined above have a reciprocal relationship and work in conjunction to explain the findings of the current study. The media theories aided in the interpretation of the results, which ultimately led to the answering of the objectives. The theories discussed can be viewed as a lens through which the results of the study are interpreted, analyzed and compared to previous media and communication findings. The theories substantiated the findings and increase their explanatory power.

The chapter that follows discusses the methodology employed in the current study. In addition, attention is paid to the validity and reliability of the current dissertation. Validity and reliability are essential in determining the confidence with which one can interpret the results.

CHAPTER 4

Research Methodology

4.1 Introduction

This chapter discusses the research methodology or design implemented in the current study. Research methodology refers to the manner in which the research is carried out. Thus, the methodology chapter essentially contains a description of the research process. The chapter describes the methods used, the research design, the population studied and the research instrument (Trochim, 2006). Particular attention is paid to the participants, the research context, the researcher's position, data collection, data analysis and ethics. The chapter concludes with a detailed discussion of the data quality with specific focus on reliability and validity.

4.2 Research context

As explained in chapter 1, Facebook, a social networking website, was the research context for the current study. A social network is defined as a social structure made up with all the people with whom one shares a social association, i.e. the social ties that one has with various people (Golder et al., 2007). The information presented in Golder et al.'s article indicates that Facebook can be defined as a social networking website that allows users to create public profiles and enables communication between individuals that are also on the website.

In order to conduct research on Facebook it was necessary for the researcher to have a Facebook profile and be a Facebook user. The researcher joined Facebook at the end of 2008, almost a year and a half after the Facebook phenomenon hit South Africa. The researcher uses Facebook as an occasional communication tool and access Facebook approximately once a week. The limited access is partly due to time constraints and partly due to the fact that the use of Facebook is prohibited in the researcher's work environment. However, the researcher has noticed that many individuals spend many hours a day on Facebook. It appears that Facebook is fulfilling a similar function to telephonic and face-to-face communication. In addition, many individuals have become obsessed with updating their profile regularly, loading photographs onto their profile and spending a significant amount of time on Facebook. The researcher also noted that many individuals exhibit a type of addiction

with regards to their Facebook use. The foregoing biased arguments corroborates with the theoretical point of departure, namely critical realism, which acknowledges the subjective nature of truth for the researcher.

4.3 Research design

The section that follows discusses the research design, which incorporates both quantitative and qualitative methods. The study's use of a survey is discussed and the purposes of the survey are emphasized. Furthermore, the use of an open ended question, i.e. a qualitative technique is accentuated.

4.3.1 Quantitative research design

For the most part, the current study falls within the realm of quantitative research design. The data that was gathered and generated consists of numerical information and the survey method was utilized (Babbie, 2005; Breakwell & Rose, 2006; Whitley, 2002). In the next two sections a definition of survey research and the purposes of the survey are presented.

4.3.2 Definition of a survey

According to Ferber, Sheatsley, Turner and Waksberg (1980) a survey is a method of collecting information from a number of individuals (known as the sample), in order to investigate or learn something about the larger population from which the sample was drawn. Similarly, Babbie (2005) defines a survey as a frequently used mode of observation in the social sciences where the researcher selects a sample of respondents and administers a questionnaire to each person in the sample. In survey research the questionnaire acts as an instrument that is specifically designed to gather information from respondents. Trochim (2006) and Whitley (2002) provide similar definitions of surveys that stipulate that a survey is a process of collecting data by asking questions and recording people's answers in a numerical format. In accordance with these definitions the questions about Facebook used in this study were structured in questionnaire format and were meant to be answered by the respondents. The survey used in this study was web based. A web based survey is similar to other surveys except for the fact that the survey is posted, completed and returned on the web (Archer, 2003; Babbie, 2005; Whitley, 2002).

4.3.3 Purposes of the survey

The use of the survey method has several advantages and serves a specific purpose. Some of the advantages and purposes of the survey method for this particular piece of research are discussed below. These advantages and purposes include:

- Original data was collected to describe a population (Facebook users) that is too large to observe directly (Babbie, 2005).
- The survey allowed the researcher to gather information from a small sample of people quickly and also aided in the description of the characteristics of a large population (Babbie, 2005; Ferber et al., 1980; Whitley, 2002). This process is known as the estimation of population parameters or characteristics (Whitley, 2002).
- Babbie (2005) asserts that surveys are flexible and the researcher can ask many questions regarding a single topic. This is relevant to the current study as the researcher was able to solicit information about the uses and gratifications of Facebook, individuals' affinity towards Facebook, their Facebook use and the self-reported substitution of face-to-face interaction as a result of Facebook use. The result is considerable flexibility in the amount of information generated and the analysis of this information.
- Surveys are of value in a complex society such as ours because they provide a speedy and economical means of determining facts. These facts can include topics such as the economy or people's knowledge, attitudes, beliefs, expectations and behavior (Ferber et al., 1980). According to Babbie (2005) surveys are particularly useful in determining attitudes. The current survey aided in the determination of individuals' attitudes with regards to Facebook.
- Information is collected by means of standardized questions so that every individual surveyed responds to exactly the same question. In addition, surveys do not intend to describe the particular individuals who were part of the sample, but rather seek to obtain a statistical profile of the population. In accordance with this individual respondents are never identified and the survey's results are presented in the form of summaries, such as statistical tables and charts (Ferber et al., 1980). The use of a survey methodology enabled the solicitation of baseline information about the particular phenomenon under study i.e. Facebook.
- Babbie (2005) states that web based surveys are more efficient than conventional techniques in collecting information and do not appear to result in a reduction of data

quality. In addition, results are usually available within days and web based surveys involve low running costs.

- Although the fact that the primary link to the survey was from the researcher's own Facebook profile may have introduced some bias, the self-administration of the report served to minimize bias (Babbie, 2005; Black, 1999; Whitley, 2002).

4.3.4 Qualitative research technique

Through the use of an open ended question, the research study is provided with qualitative information. An open ended question can be defined as an unstructured question in which probable answers are not suggested. Respondents are provided with the opportunity to answer the question in their own words (Whitley, 2005).

The researcher felt it necessary to include an open ended question to gather additional exploratory insights. Furthermore, the objective of the question dictated the necessity of an open ended response. Hence, respondents were provided with ample opportunity to express themselves in terms of their feelings and attitudes regarding the subject.

4.4 Research Participants

The Facebook survey was posted on Facebook and Facebook users were invited to complete the survey. The following section describes the sampling methods used and the characteristics of the respondents.

4.4.1 Sampling

The researcher utilized both convenience and snowball sampling. Sampling began with convenience sampling and progressed to snowball sampling. Convenience sampling involves creating a sample from the individuals who happen to be in the research setting at the time the research is being conducted (Black, 1999; Whitley, 2002). The basic foundation of convenience sampling is the voluntary nature of response. Respondents volunteer to take part in the study (Black, 1999). Snowball sampling occurred when the individuals who had originally formed part of the convenience sample nominated acquaintances that they thought might be willing to participate in the study (Babbie, 2005; Black, 1999; Whitley, 2002).

These sampling methods were chosen as a result of the research platform used. The researcher's aim was to reach Facebook subscribers and distribute a web based survey and this was only possible if individuals subscribe to Facebook. The researcher was not able to access strangers on Facebook as one can only access individuals on your own profile. Convenience sampling was thus used to distribute the questionnaire to individuals on the researcher's Facebook profile. In addition to being Facebook users respondents also had to meet some other criteria for participation. These criteria are described in the next section. Individuals linked to the researcher's profile who were willing to participate were requested to distribute the questionnaire to their friends or connections via their Facebook profile (snowball sampling). Eventually, as a result of snowball sampling, half of the sample was comprised of respondents that the researcher does not know personally.

The use of these sampling techniques means that the sample is not representative of the population and the results of the research may not generalize across other settings or populations (Babbie, 2005; Black, 1999; Trochim, 2006; Whitley, 2002). This is not problematic for the current study as generalization across populations or samples was not an objective of the study. Instead the study was exploratory in nature and aimed to contribute to literature on the use of social networking websites in South Africa.

4.4.2 Participant characteristics

The respondents of the current study were all Facebook subscribers. The individuals were accessed and asked to volunteer through the researcher's Facebook account where the questionnaire was uploaded as an application. Individuals had to be 18 years and older to participate in the survey. In addition, respondents had to be South African residents as the study focused specifically on Facebook use in South Africa. No additional recruitment criteria were used. Factors such as the amount of time spent on Facebook were not considered as recruitment criteria. The only important factor was that respondents had to be Facebook subscribers. The broad inclusion criteria were justified by the exploratory nature of the study.

4.5 Research Position

This study made use of a quantitative research methodology to gather and generate data that consisted of numerical information. The survey method was used to gather data (Black; 1999; Whitley, 2002). The use of quantitative data usually implies a search for objective truth, precise measurement and close analysis of target concepts. The researcher is seen as separate from the subject matter. In contrast qualitative research usually regards truth as subjective and the researcher is considered to be subjectively immersed in the subject matter

(Babbie, 2005; Whitley, 2002). In quantitative research conducted from a positivist paradigm the researcher is seen as detached and impartial. Similarly, objective research in the social sciences separates the researcher from the respondent (the object of the research) and seeks to eliminate bias (Babbie, 2005; Davis & Bremner, 2006; Trochim, 2006; Whitley, 2002).

The current study made use of a subjective approach to quantitative research. The researcher is a Facebook subscriber and is therefore necessarily immersed in the subject matter. This is in keeping with the post-positivist theory of critical realism, which forms the theoretical backdrop to the study. The researcher's subjectivity is therefore acknowledged. The questions that the researcher asked and the way the data was analysed can also be seen as subjective.

4.6 Data collection

In this section the data collection is discussed. Specific attention is paid to the data collection procedure, measurement instruments used and data analysis techniques applied. The aim was to generate data that is as accurate as possible and to ensure that this data is correctly interpreted.

4.6.1 Data collection procedure

Questionnaires were administered online. The questionnaires were loaded onto the researcher's Facebook profile as an application, and were then sent to the researcher's Facebook friends, connections and acquaintances in June 2009. The researcher also requested that these potential respondents forward the questionnaire to their friends, connections and acquaintances. Data collection lasted three months. The questionnaire was made available in Microsoft Word format for downloading from Facebook. Respondents were thus able to save the questionnaire on their own hard drives.

The researcher piloted the questionnaire on five respondents. The goal of the pilot study was to ensure question comprehension by the respondents and to solicit feedback from Facebook users on possible additional uses and gratifications to include. The pilot study revealed that the respondents comprehend the questions. Similarly, the respondents found the questionnaire comprehensive and had no additional input regarding alternative uses and gratifications of Facebook. However some suggestions were made by one respondent with regards to simplifying some of the attitudinal statements by making them shorter, i.e. more

concise. The foregoing was implemented in the current questionnaire. In addition, the pilot study revealed that the questionnaire took approximately eight minutes to complete.

Once the respondent had completed the questionnaire, he or she could return it as an attachment to the researcher via e-mail. Follow-up messages or invitations were sent to the individuals whom were originally selected through convenience sampling, in order to remind them to complete the questionnaire. However, individuals that were selected through snowball sampling could not be reminded as the researcher was not familiar with them. The researcher attempted to counteract this by asking the original respondents to remind these individuals. Furthermore, an acquaintance of the researcher provided her Facebook expertise and helped the researcher to post the questionnaire on Facebook. Due to the fact that the acquaintance is an avid Facebook user and has many contacts on her profile, she was able to distribute the questionnaire to more than 400 of her friends. However, the response rate from these friends was extremely low. The researcher and her acquaintance attempted to counter this during the last few weeks by providing the acquaintance's email address as an additional address to post the completed questionnaire. This was based on the premise that potential respondents might be more comfortable to return a completed survey to someone that is known to them personally.

4.6.2 Measurement instrument

The researcher developed the questionnaire based on a comprehensive literature review on modes of CMC such as Facebook. The questionnaire investigates Facebook use, the uses and gratifications of Facebook, affinity towards Facebook and the self-reported substitution of face-to-face interaction as a result of Facebook use. Due to the nature of Facebook as a universal communication medium and the notion of people all over the world generally using Facebook for similar reasons (based on the literature reviewed), items, scales and the survey were assumed to be relevant to the South African context.

Some of the questions used in the questionnaire were developed by the researcher in relation to the literature reviewed. The researcher scrutinized various sources in terms of the literature's specific findings on how users use Facebook, other social networking websites and computer mediated communication in general. Subsequently, the researcher was able to construct an attitudinal battery based on previous proven uses and gratifications.

Other questions were based on previous research. Items used in previous research were accessed by reviewing the questionnaires or results sections attached to journal articles. These items are detailed in the sections below.

4.6.2.1 Demographics

Respondents' demographics were determined by requesting that respondents provide their age, sex and race (See *Appendix A - Section A*). These demographic characteristics were considered important because they led to the generation of descriptive statistics for the sample and provided insight into the characteristics of the sample. These demographics were then used to run cross tabulations with other variables.

4.6.2.2 Facebook use

Respondents were asked to indicate how much time they spend on Facebook per week. Use was categorized on a 7 point scale as follows: (1) Several times a day; (2) About once a day; (3) 3-5 Days a week; (4) 1-2 Days a week; (5) Every few weeks; (6) Less often; (7) Don't Know (See *Appendix A - Section B*). This information was used to determine an individual's Facebook usage.

4.6.2.3 Motivations for Facebook use (uses and gratifications)

Uses and gratifications associated with Facebook were determined through the completion of 29 items on a Likert-type scale. The items investigated respondents' reasons for being Facebook subscribers. Items measuring uses and gratifications were found in instruments used in previous studies (Ferguson et al., 2007; Nyland, 2007; Raacke & Bonds-Raacke, 2008; Song et al., 2004) or were developed based on the literature reviewed (See *Appendix A - Section C*).

4.6.2.4 Self-reported substitution of face-to-face interaction as a result of Facebook use

The self-reported substitution of face-to-face interaction as a result of Facebook use was determined by asking questions developed by previous researchers and myself. Some of the questions were utilized in previous studies by Nie and Erbring (2000) and Nyland (2007) that concerned the internet and its role in the self-reported substitution of activities (See *Appendix A - Section D*).

4.6.2.5 Affinity

Affinity towards Facebook was determined through the completion of five items on a Likert-type scale. The items were designed to measure respondents' level of affinity towards the use of Facebook. These items were used in a previous study where the researchers determined level of affinity towards Ipods (Ferguson et al., 2007). The questions were adapted to fit the nature of the study (*See Appendix A - Section E*).

4.6.2.6 Respondents privacy concerns regarding Facebook

Respondents were asked whether they have privacy concerns regarding Facebook. Respondents were asked a simple yes or no question. Respondents that answered yes to this question were asked to respond to an open-ended question seeking more detail regarding their privacy concerns (*See Appendix A - Section F*).

4.6.2.7 Personality characteristics of the sample

The sample's personality characteristics were determined by asking the respondents to choose five personality descriptions and three personality traits to describe themselves (*See Appendix A - Section G*). The list of the descriptions and traits was customized from a research document generated by the company with which the researcher is currently employed. The information was deemed relevant to determine statistically if certain personality descriptions or traits are more inclined to use Facebook. Furthermore, to establish if there is a relationship between the former mentioned personality traits/descriptions and gender and age.

4.7 Data analysis

The data was analyzed using SPSS Version 15 (SPSS, 2006) a statistical program. This analysis provided meaningful results and conclusions through the use of appropriate statistical tests. Descriptive statistics such as frequencies and means were calculated to form an overall summary of the data. The following section examines the statistical analyses used on the data. In addition, reference is made to the specific assumptions of each test and whether the present study complied with the assumptions. Furthermore, the statistical evidence of certain assumptions is either illustrated in chapter 5 or in the appendix.

4.7. 1 Reliability analysis

Reliability analysis was conducted to determine if the instrument (the questionnaire) was measuring consistently. It was important to ensure that the questionnaire gave consistent scores across respondents (Finchilescu, 2007). The foregoing was achieved by determining the Cronbach alpha coefficient of the scale items. The Cronbach alpha is defined as the estimate of consistency of responses to the different scale items in the survey (Finchilescu, 2007). A high Cronbach alpha suggests that a survey has strong test-retest reliability. Hence, it will give the same result every time it is applied to the same person (Whitley, 2005).

4.7.2 Wordle

Wordle (<http://www.wordle.net/>), an analysis tool that aids in the illumination of words that have greater prominence (Feinberg, 2009), was used to analyse the responses to the open ended question. This resulted in key words being extracted. The value in this is that a synopsis is provided based on the core words extorted. Furthermore, it provides a clear and coherent view on reasons associated with the privacy concerns of Facebook, the specific question probed.

4.7.3 T-tests

A one sample t-test is used to compare the mean score of the sample to a known value, i.e. the population mean (Nunez, 2007). One sample t-tests were conducted to determine which uses and gratifications were significantly lower or higher than the sample's average rating for the attitudinal statements. This investigated which uses and gratifications were endorsed by the respondents and which uses and gratifications were not endorsed by the respondents.

The independent sample t-test is used to establish if there is a difference between two groups on a given variable (Whitley, 2005). Independent sample t-tests were used to determine if there are significant differences between males and females on all the variables.

4.7.3.1 Evaluation of data assumptions for t-test analysis

The current study complied with the assumptions for t-test analysis (Nunez, 2007). Specifically:

- Assumptions of normality: The sample from which the data was drawn is normally distributed. This is only important for the independent samples t-test.

- Assumption of homogeneity of variance: The variances within the sample are consistent, i.e. homogenous.
- Assumption of independence: The samples from which the means were calculated is independent and did not have an impact on each other's scores.

4.7.4 Chi-square test

A chi-square test can be defined as a significance test that relies on counts rather than scores (Lachenicht, 2007a). Subsequently, the results are evaluated by reference to the chi-square distribution. Hence, a hypothesis is tested stating that the frequency distribution of certain results observed in a sample is consistent with a particular theoretical distribution (Lachenicht, 2007a). The chi-square test was used to analyze whether gender and respondents' privacy concerns interact and whether respondents' Facebook use and gender interact.

4.7.4.1 Evaluation of data assumptions for chi-square test analysis

The present study fulfilled the assumptions for chi-square test analysis (Lachenicht, 2007a). Specifically:

- The number of subjects expected in each cell must reach a certain minimum: The expected frequency is not less than five in at least 80% of the cells. However, in one instance the expected frequency is less than five and subsequently the finding was interpreted with caution.
- The assumption that items and people are independent from each other: The foregoing was ascertained due to the fact that all subjects were included in the table. Furthermore, each observation comes from a different subject.

4.7.5 One-way analysis of variance

A one-way analysis of variance (ANOVA) was used to investigate the relationship between the variables and the grouped age categories. The one-way ANOVA serves a similar purpose than a t-test. However, it is applied when one has one independent variable that comprises of more than two groups (Durrheim, 2007).

4.7.5.1 Evaluation of data assumptions for ANOVA analysis

The existing study complied with the assumptions for ANOVA analysis (Durrheim, 2007). Specifically:

- As mentioned previously, the population from which the data was sampled is normally distributed.
- Similarly, as discussed, the assumption of homogeneity of variance has been honored. The variances within the sample are homogenous and the largest variance is not more than four to five times of the smallest variance.

4.7.6 Correlation and Regression

Correlation analysis is used to determine the relationship between two variables. The value in this is that it allows one to develop equations to predict the value of one variable from the value of the other variable, i.e. regression (Whitley, 2005). Pearson correlation and regression analysis was used to determine if affinity correlates with and predicts Facebook use. An affinity score was calculated for each person. The score was dependent on the individual's answers for that particular section. Individuals who answered 'agree' to most of the questions received a high affinity score. Ferguson et al. (2007) also used this method of calculating affinity.

4.7.5.1 Evaluation of data assumptions for correlation and regression analysis

The study honored the assumptions for correlation and regression analysis (Lachenicht, 2007c). Specifically:

- The assumption of linearity: This implies there is a linear relationship between the variables. In the current study there was a linear relationship between the variables, i.e. affinity and Facebook use.
- As already shown, the assumption of normality and homogeneity of variance has been respected. Hence correlation and regression is justified.

4.7.8. Factor analysis

Factor analysis is defined as a statistical technique that can be applied to a set of variables to classify subsets of variables. Variables in each subset are correlated with each other and are relatively uncorrelated with the other variables in the other subsets (Whitley, 2005). Factor analysis was conducted on all 29 questions measuring the uses and gratifications of Facebook. Questions that correlate highly with one another clustered together and served as themes.

4.7.8.1 Evaluation of data assumptions for factor analysis

Factor analysis was justified due to the following assumptions that have been met (Whitley, 2005):

- The data on which the factor analysis was performed comprised of interval data.
- Modern levels of correlation are evident in the data. Factor analysis ensures that the patterns are uncovered that elucidate the correlated patterns.
- Several dependent variables are evident in the study.

4.8 Ethics

The study complied with the ethical principles laid out by the Faculty of Humanities at the University of Pretoria. The Faculty's Ethics Committee approved the application for ethical approval on 14 December 2008.

The online nature of the survey made it difficult to obtain signed informed consent from respondents. However, participants were still presented with the participant information sheet, making the level of potential risk as a result of participating in the research as well as the researcher's role, identity, purpose and intention known to them (Struwig & Stead, 2001). The participant information sheet included an introduction indicating that participation is voluntary and respondents can withdraw at any time. The researcher's contact information was also provided. The respondents were informed that the submission of the completed survey implied that they had given consent. This method of informed consent was deemed to be appropriate due to the fact that the study was not of a sensitive nature (University of Maryland Institutional Review Board, 2008). In addition, Struwig and Stead (2001) do not view informed consent as an ethical consideration when conducting internet research. However, they emphasize the readiness of the respondent as a consideration. This implies that the

respondent must be able to answer the questionnaire. The respondent must have knowledge/attitudes/opinions about the research topic and they must be the correct target market, i.e. South African Facebook users that are older than 18. Struwig and Stead (2001) also indicate that ethical considerations can be met through the use of appropriate sampling techniques. The current study met this requirement by requesting that only South African respondents over the age of 18 complete the questionnaire.

Respondents' confidentiality was also maintained. Anonymity was not possible because respondents' email addresses or Facebook accounts were visible to the researcher when she sent or received questionnaires. This was not regarded as problematic because the study was not of a sensitive nature. Furthermore, as discussed, some respondents that were selected via snowball sampling had the option to return their completed questionnaire to their original sender, i.e. the researcher's acquaintance mentioned earlier. In order to comply with the approved ethics, the acquaintance was not allowed to view any completed questionnaires emailed to her. She operated solely as an intermediary. Furthermore, upon reminding the respondents via email, she also assured them that she was acting as a go-between. She reiterated that her purpose is to distribute the completed questionnaire to the researcher, without examining their responses.

Additionally, the research was designed, reported and documented in an objective, transparent and accurate manner (Whitley, 2002). The questionnaires will be stored safely for 15 years as required by the Ethics Committee and only the researcher will have access to the raw data and respondents' identifying information (Whitley, 2002).

4.9 Data quality

The following section discusses two ways in which researchers measure the quality of their data instruments and inevitably the quality of their data. The application of these approaches ensures that the results generated for a particular study are 'true'. This is especially important for studies with far reaching consequences. According to Black (1999) validity and reliability indexes allow researchers to evaluate and improve their measuring instruments.

4.9.1 Reliability

Reliability refers to a measure's ability to yield the same results on repeated trials (Babbie, 2005; Black, 1999; Trochim, 2006; Whitley, 2002; Wolfaard, 2001). Surveys tend to have greater reliability than validity. This is because all subjects or respondents are presented with the same standardized stimulus. This ensures that a researcher's observations are reliable (Babbie, 2005; Street, 1995).

Although all the individuals received the same questionnaire this does not necessarily mean that the questionnaire is reliable. For researchers to indicate that a measure is reliable, independent observers and research tools, procedures and statistics that yield consistent measurements are necessary (Babbie, 2005; Trochim, 2006; Whitley, 2002). There is a lack of evidence to confidently conclude that the questionnaire used in the current study was reliable. The reliability statistic presented in chapter 5 is the only reliability evidence available. Future utilization of the questionnaire, further testing and more comprehensive research is necessary in order to yield satisfactory conclusions about reliability.

4.9.2 Validity

Validity refers to the degree to which a study is accurately measuring, reflecting or accessing the information the researcher is attempting to measure (Babbie, 2005; Black, 1999; Street, 1995; Trochim, 2006; Whitley, 2002; Wolfaard, 2001). Validity refers to whether the researcher is measuring what he/she is supposed to measure. In the context of the current study internal validity refers to whether the researcher accurately measured the uses and gratifications of Facebook, the role of Facebook in the substitution of face-to-face interaction and whether individuals' affinity towards Facebook predict their use. Internal validity thus looks at whether the researcher actually measured the psychological aspects of Facebook.

The artificial nature of surveys negatively impacts their overall validity. Surveys struggle to gauge respondents' real feelings because they tend to make use of dichotomies such as agree/disagree, like/dislike, support/oppose. These dichotomies are only approximations of individuals' feelings and of the researcher's intentions (Street, 1995). Whitley (2002) suggests that web based surveys have the potential to increase internal validity. Completing a questionnaire on the web counteracts the effect that an experimenter or researcher has on participants. In addition, the chances of respondents providing socially desirable answers are also lessened as a result of anonymity, confidentiality and the comfortable and familiar research setting.

4.9.2.1 External validity

The external validity of a study refers to whether the results of a study are generalizable or transferable (Babbie, 2005; Street, 1995; Trochim, 2006; Whitley, 2002; Wolfaard, 2001).

The external validity of the current study is low due to use of convenience sampling of people known to the researcher. Whitley (2002) asserts that when researchers opt for convenience

sampling it is always at the expense of generalizability or external validity. This is not problematic for this study, as the study did not intend to generate generalizable data. Instead the study rather aimed to gather baseline information about Facebook. It is hoped that in the future this information will be extended and compared with other South African findings, thus resulting in greater external validity.

4.9.2.2 Face validity

Face validity is concerned with the appearance of a measure or procedure (Babbie, 2005; Street, 1995; Wolfaard, 2001). Face validity determines whether the questionnaire was a reasonable way to gain access to the sought after information. The face validity of the current questionnaire is likely to be high because the measure was designed based on a comprehensive literature review and incorporated questionnaire items from previous research published in academic journals.

4.9.2.3 Criterion related validity

Criterion related validity refers to the questionnaire's accuracy. This is achieved by comparing it to a questionnaire that has been proved to be valid (Babbie, 2005; Black, 1999; Street, 1995; Wolfaard, 2001). In the current study the assessment instrument was not compared to another instrument. However, some of the items in each section had been used in previous studies. These items had been adjusted to fit the context of the study. It is likely that the questionnaire had average criterion related validity.

4.9.2.4 Content validity

Content validity concerns the extent to which the questionnaire or measure reflects the specific domain of the content (Street 1995; Wolfaard, 2001). The content validity of the current study is high due to the fact that the Facebook questionnaire informed the research objectives of the study. Facebook, the specific domain of the study, was accurately reflected in the questionnaire and the research questions were answered through the use of the questionnaire. In addition, the questionnaire covered both the content of Facebook and the content of the research questions comprehensively.

4.10 Conclusion

This chapter outlined and described the research process informing the current study. The research context was discussed. In addition, the Facebook survey used to gather data was discussed in detail. The chapter outlined the measuring instruments and statistical analyses that were employed to scrutinize the research context, the research questions, the respondents and the respondents' characteristics. The ethical backdrop of the study was also discussed. The chapter concluded with an assessment of the quality of the data generated, with specific focus on the reliability and validity of the Facebook questionnaire.

The chapter that follows presents the results that were generated through statistical analysis of the data that was collected through the research process and methodology described in this chapter.

CHAPTER 5

Results

5.1 Introduction

Data was collected using a web based survey designed by the researcher. In total one hundred and thirteen completed questionnaires were returned. These questionnaires were captured and analysed using SPSS. This chapter discusses the findings of the data based on the analysis of the completed questionnaires.

The first part of the chapter focuses on the reliability of the questionnaire. It includes a broad outline of the findings in terms of the basic demographics of the sample and descriptive statistics are supplied for each question. The second part of the chapter uses various statistical analyses and tests to further interrogate the findings and to look for statistical significance.

The statistical analysis of the data is designed to answer the following research questions:

1. What are the uses and gratifications of Facebook, i.e. what are the respondents using Facebook for and what gratifications are they meeting through the utilization of Facebook?
2. Is Facebook leading to the self-reported substitution of face-to-face interaction through particular usages?
3. What is the relationship between Facebook use and affinity?

5.2 Reliability of the Facebook questionnaire

The internal consistency of the 37 scale items in the questionnaire was assessed using Cronbach's alpha. SPSS's output revealed that the questionnaire has a Cronbach alpha or reliability of 0.909. This is reflected in Table 1.

Table 1 Reliability statistic of the scale

Cronbach's Alpha	N of Items
.909	37

According to Finchilescu (2007) the purpose of a test or scale factors into determining an appropriate level of reliability. A Cronbach’s alpha of 0.70 is usually adequate for basic research instruments that are used primarily to determine attitudes such as the Facebook questionnaire used in the current study. The reliability statistic of 0.909 reported in Table 1 is thus more than adequate and the Facebook questionnaire was reliable for this specific sample.

5.3 Demographics

A hundred and thirteen respondents completed the questionnaire. However, only a hundred and eleven questionnaires were captured and statistically analyzed as two of the completed questionnaires were from non-South Africans (New Zealanders). Country of origin was not requested in the survey. Nevertheless, the researcher was able to establish the international nature of the respondents due to the fact that they included the notion that they are “New Zealanders” in the race question under “Other”. The study focused exclusively on South African Facebook use and therefore questionnaires completed by international respondents were excluded from the study.

The demographics of the respondents are presented below according to age, gender and race. Figure 1 contains a frequency distribution of the respondents’ age.

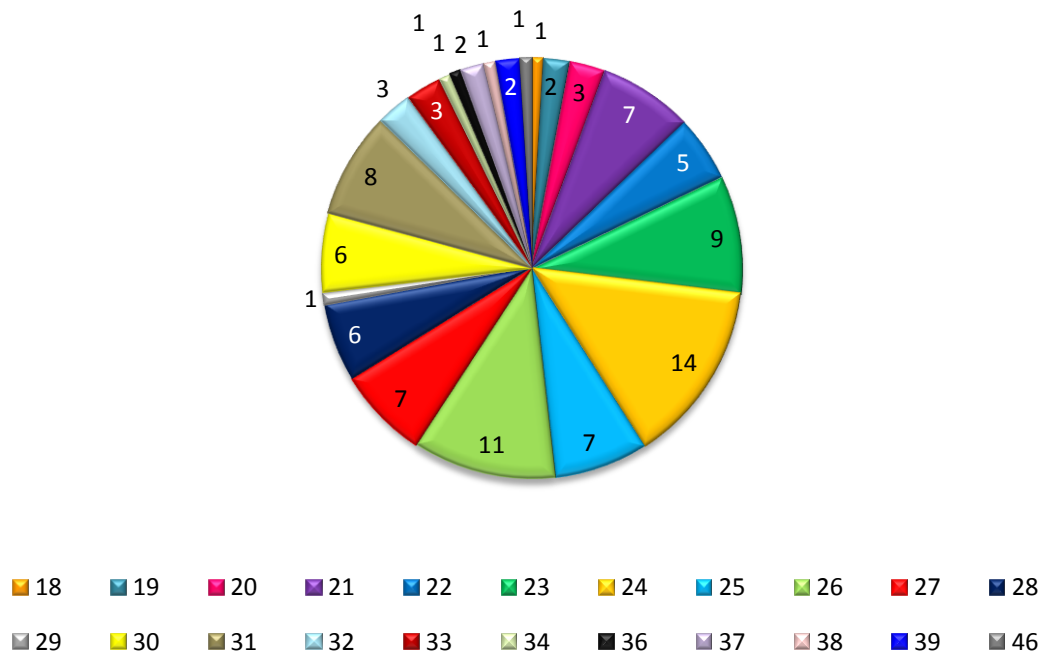


Figure 1 Age of respondents

Table 2 Mean age of the respondents

N	Valid	111
	Missing	0
Mean		26.57

The ages in the sample ranged from 18 to 46 years. The mean age of the sample was 27 years (see Table 2). The mean age of the sample is higher than that of the average social network user, i.e. 18-24 (Nyland et al., 2007) and this might possible be because of the sampling bias, where the researcher's Facebook friends (thus the respondents that completed the survey) comprise of individuals the same age as the researcher. The mature nature of the sample could reveal different insights than those gained in previous international samples that focused on college or high school students (Acquisti & Gross, 2006; De Souza & Dick, 2007; Hewitt & Forte, 2006; Nyland, 2007; Raacke & Bonds-Raacke, 2008). Schroeder (2009) asserts that the average age of Facebook users is rapidly increasing and Facebook is no longer the exclusive domain of the youth.

The large spread of ages in the sample resulted in the researcher regrouping and recoding the ages in order to simplify the analysis and application. The researcher created age categories based on what the researcher considered to be distinctive stages of life. The foregoing is solely based on the researcher's experience and not on academic theory. These age categories are listed below:

- 18-22 years old. This is based on the premise that respondents falling into these age categories are usually students in some form of tertiary institution.
- 23-26 years old. The researcher is of the opinion that respondents that fall into this age categories are still young, but just started working.
- 27-30 years old. These respondents potentially might have been working for a while and possibly married.
- 31-34 years old. The researcher is of the view that respondents within these age categories potentially might comprise of a young family.
- 35+: This is based on the argument that the researcher views these respondents as older individuals on Facebook.

Subsequently, all further statistical analyses made use of these age categories as reflected in Figure 2.

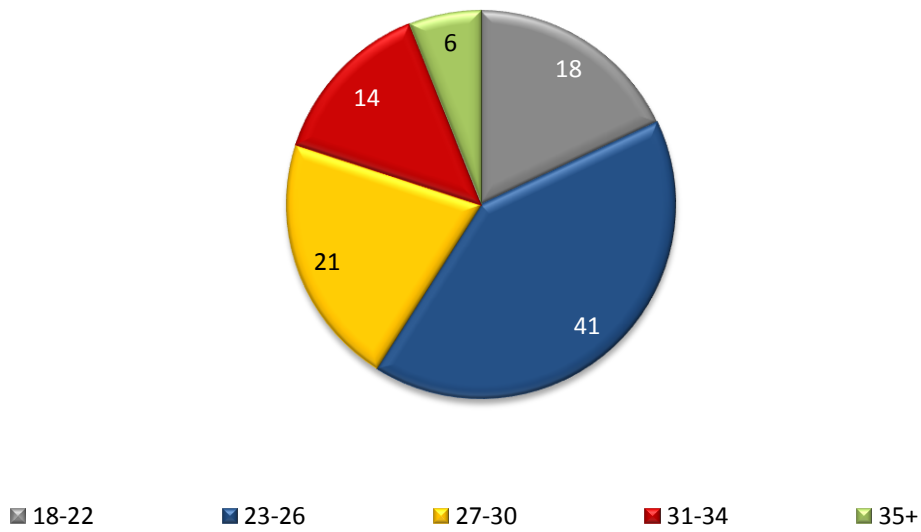


Figure 2 Age of respondents recoded

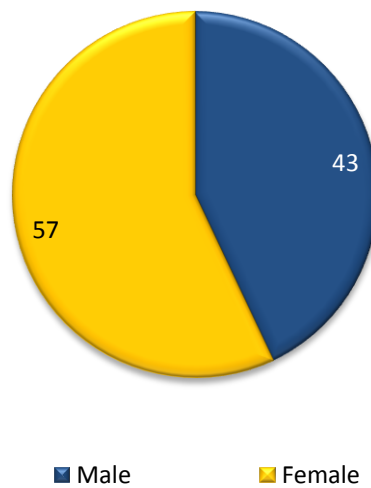


Figure 3 Gender of respondents

Figure 3 illustrates that the sample consisted of more females than males. This may be because women use Facebook more than men (Lloyd et al., 2007). Alternatively it could be a result of the fact that the researcher is a female and tend to have more female contacts on Facebook, thus biasing the sample.

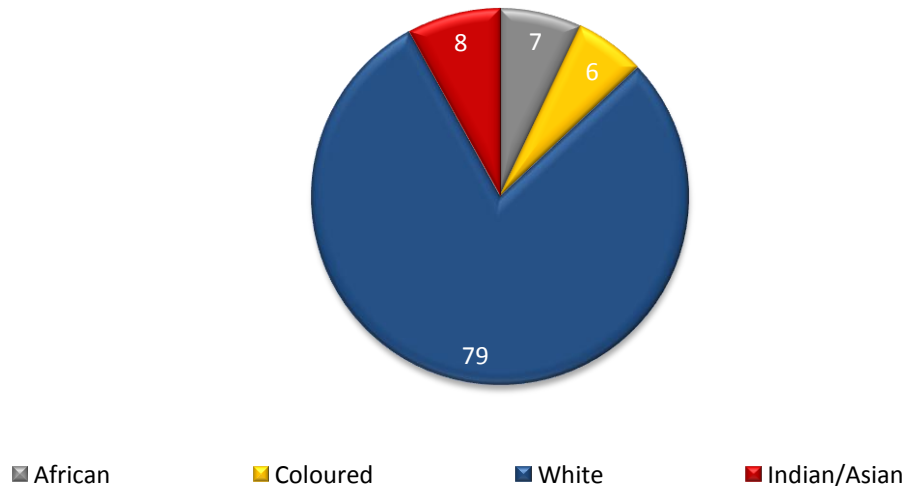


Figure 4 Race of respondents

The high proportion of white individuals in the sample (see Figure 4) might reflect the fact that more white South Africans than black South Africans have access to the internet (SAARF AMPS, 2008b) and therefore access to Facebook. It could also be because the researcher has more white friends on her Facebook network and this network was used to access the sample.

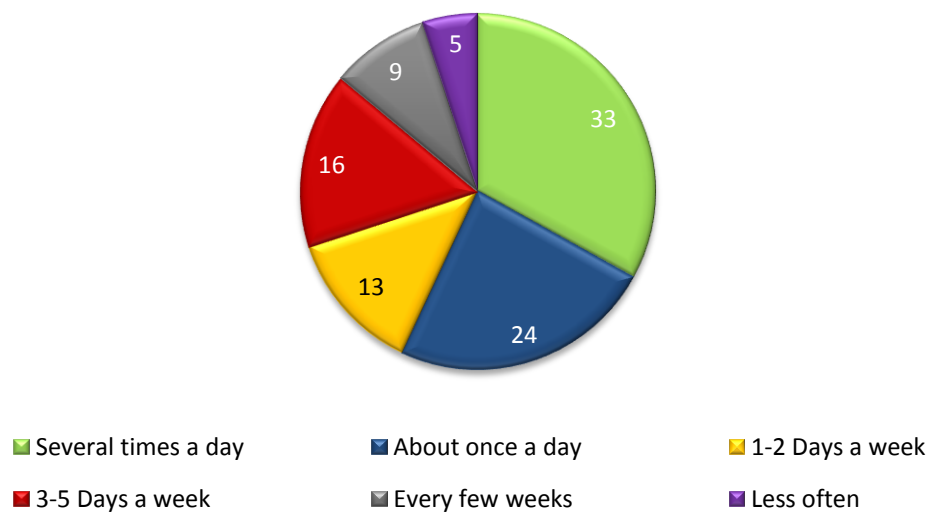


Figure 5 Usage of Facebook per week for the respondents

Cross tabulation showed that the fraction of the sample that uses Facebook less often or only every few weeks (as shown in Figure 5) falls in the 18-26 age group. This is an interesting finding as it was assumed that older users would use Facebook less, but this does not seem to be the case. However, it is possible that this finding is unduly influenced by the fact that more than half of the sample falls within the age categories of 18-26. It is also possible that

the respondents aged 18-26 that use Facebook less often or every few weeks are atypical Facebook users. The relationship between the variable gender and Facebook per week usage is insignificant [$.585 (X^2(5) = 3.760, p < .0001)$].

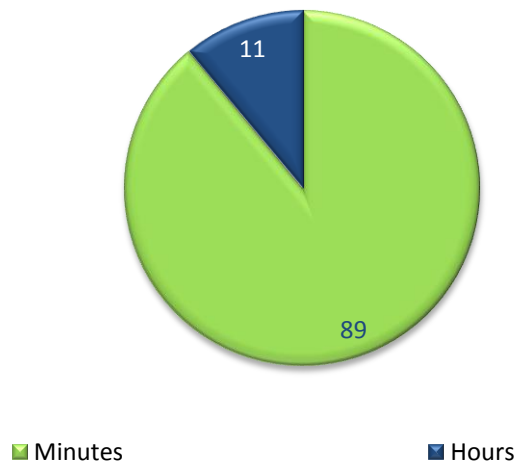


Figure 6 Time spent on Facebook per visit

Table 3 Average time spent on Facebook per visit

	N	Minimum	Maximum	Mean	Std. Deviation
Time specification	111	5	180	27.68	26.210
Valid N (listwise)	111				

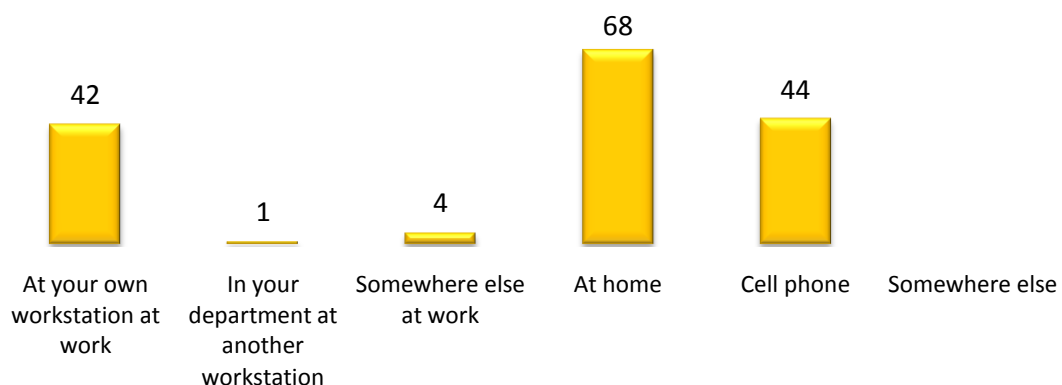


Figure 7 Access location of Facebook for the respondents

The majority of the sample spends minutes on Facebook as opposed to hours (see Figure 6). The mean time per Facebook visit is 28 minutes (Table 3). In addition, Figure 7 illustrates that

most of the respondents access Facebook from home. Other popular access points are cell phones and personal workstations.

5.4 Results

The following section scrutinizes and discusses the results of the Facebook questionnaire. The section specifically examines the respondents' Facebook usage and looks at the needs that are being met by this usage. The section also examines whether the uses of Facebook are leading to the Facebook interaction substituting face-to-face interaction. In addition, the section considers whether the respondents' Facebook affinity predicts their Facebook use. Reference is also made to the respondents' privacy concerns regarding Facebook. A descriptive profile of the respondents in terms of their encompassing personality traits and personality descriptions is provided.

5.4.1 Uses and gratifications of Facebook

The following section discusses the respondents' use of Facebook in terms of the least and most common usages. At the researcher's discretion the figures in this section were grouped into categories of uses and gratifications. The focus was on communication, information seeking/sharing, specific and other uses and gratifications.

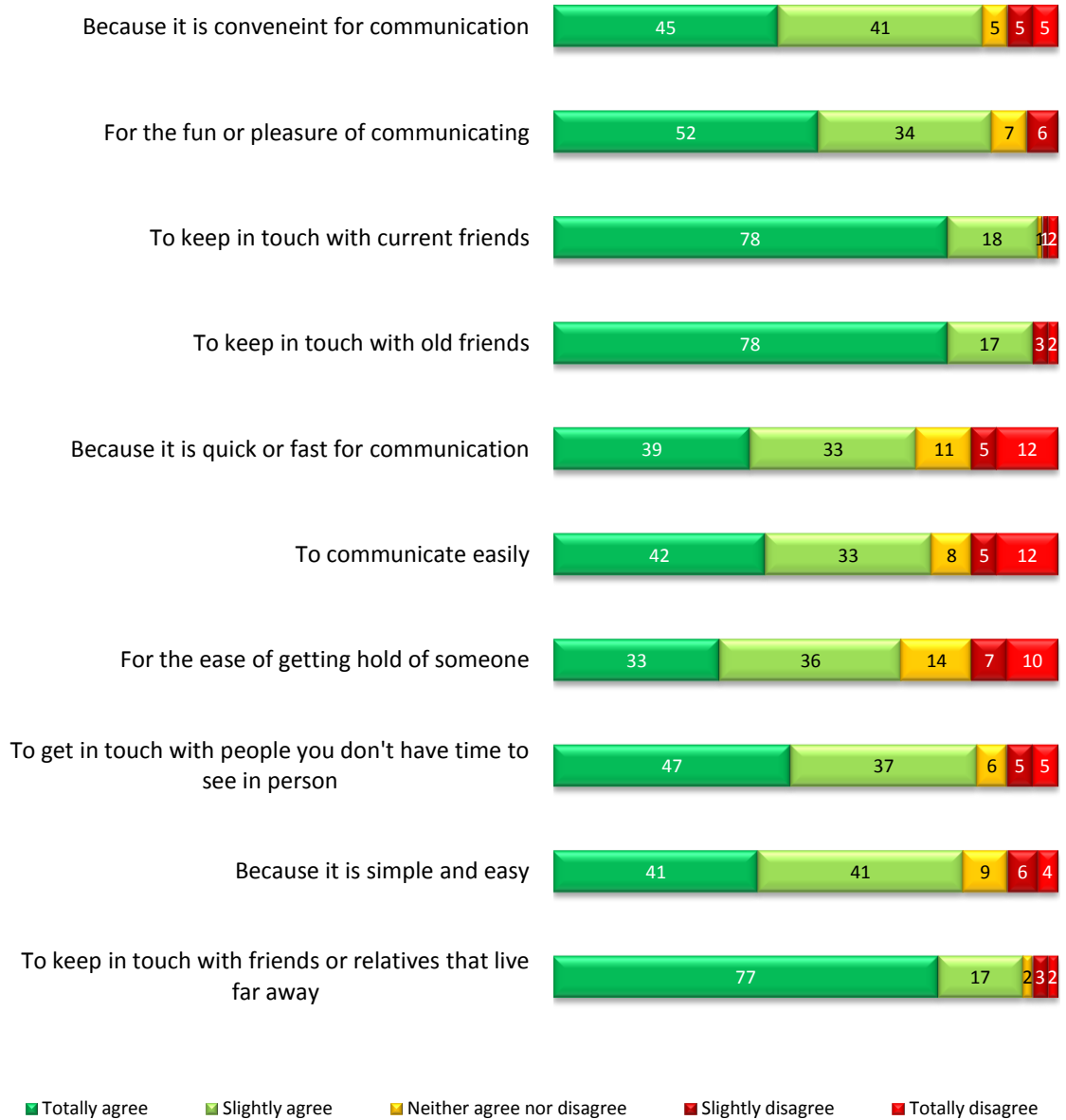


Figure 8 Communication uses and gratifications

Figure 8 illustrates the findings regarding the use of Facebook for communication purposes. Respondents reported using Facebook to keep in touch with friends, as well as with friends or relatives that live far away. Furthermore, respondents use Facebook because it is convenient, fun, simple, fast and easy.

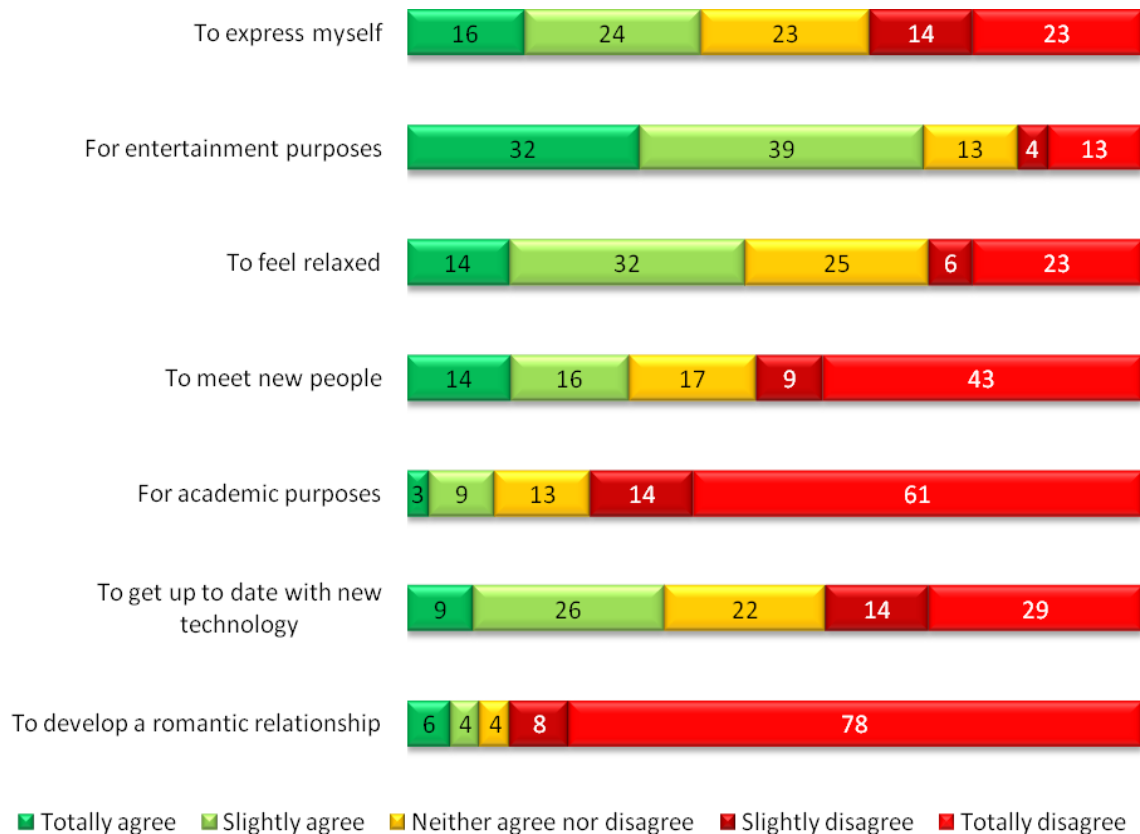


Figure 9 Specific uses and gratifications

The first item in Figure 9, ‘expressing oneself’, can refer to anything from posting pictures, to leaving messages on Facebook walls or decorating your Facebook profile. A high percentage of individuals neither agreed nor disagreed with this statement. This could indicate that they did not understand the question. The researcher is of the opinion that all individuals on Facebook are expressing themselves to a certain extent. It is possible that the respondents had never thought of Facebook as a vehicle for self-expression but they are not opposed to the idea. This item needs to be clarified in future studies.

Figure 9 illustrates that less than half of the sample used Facebook as an escape. These individuals do not use Facebook to escape or forget about their daily lives or problems, and do not view Facebook as a form of relaxation. However, people might not be consciously aware of the relaxation that Facebook provides. This could account for the high percentage of respondents who indicated that they were neutral towards this statement.

17% of respondents neither agreed nor disagreed with the notion of using Facebook to meet new people. This could indicate that these individuals have not used Facebook to meet new people but they are open to the idea. In addition, respondents are also not using Facebook for

'academic purposes'. The high number of respondents who disagreed with this item might be indicative of the fact that the respondents in the sample tended to be more mature (average age 27) and are therefore unlikely to be involved in academic studies. Furthermore, many respondents might not even be aware of the fact that one can use Facebook for academic purposes. If the study was conducted using high school or university students the result might have been different. For example, some classes or courses at university have their own Facebook groups where students exchange tips, information and general concerns regarding a particular subject or course.

Similarly, the respondents indicated that they are not using Facebook for dating purposes. This result may once again be related to the relative maturity of the sample. A survey of high school or college students might yield different results.

Once again quite a high number respondents neither agreed nor disagreed with the statement involving using Facebook 'to get up to date with new technology' (see Figure 9). This indicates that people could be unsure of whether they use Facebook to access new technology, or they may be unsure about whether Facebook qualifies as new technology.



Figure 10 Other uses and gratifications

The results displayed in Figure 10 indicate that fewer individuals are hooked on or addicted to Facebook than what is claimed by popular opinion. Not all respondents use Facebook as a result of habit. Furthermore, agreeing with the statement regarding using Facebook 'to occupy

my time' is related to using Facebook 'because it is just a habit' (49%). This could indicate that 40% of respondents are using Facebook when bored or when they have nothing else to do.

The fraction of respondents who indicated that they use Facebook 'to feel less lonely' fall within all the grouped age categories except for 35+ category. It is possible that these respondents are introverts, less sociable respondents or individuals that manifest underlying problems such as depression. Previous research has shown that anxious or depressed individuals are often drawn to the internet (Morahan-Martin & Schumacher, 2003). These individuals may be looking for ways to escape their loneliness. 15% of respondents neither agreed nor disagreed with the statement regarding 'using Facebook to get support from others' (Figure 10). This might indicate that the question is a particularly sensitive one and that individuals are ashamed to admit that they are on Facebook to get support from others.

In addition, Figure 10 shows that many of the respondents deny using Facebook as a result of social pressure. This might be a function of the majority of the sample. Twenty percent of respondents neither agreed nor disagreed with this statement. This could again indicate that the question touched on a sensitive subject and respondents therefore avoided answering it. Furthermore, the high rate of disagreement with the statement regarding using Facebook 'as a result of social pressure' could also be due to the mature nature of the sample. These respondents are likely to be older individuals and therefore may not be as susceptible to peer pressure. Cross tabulations revealed that the respondents that did agree with this sentiment are spread across all the age groups.

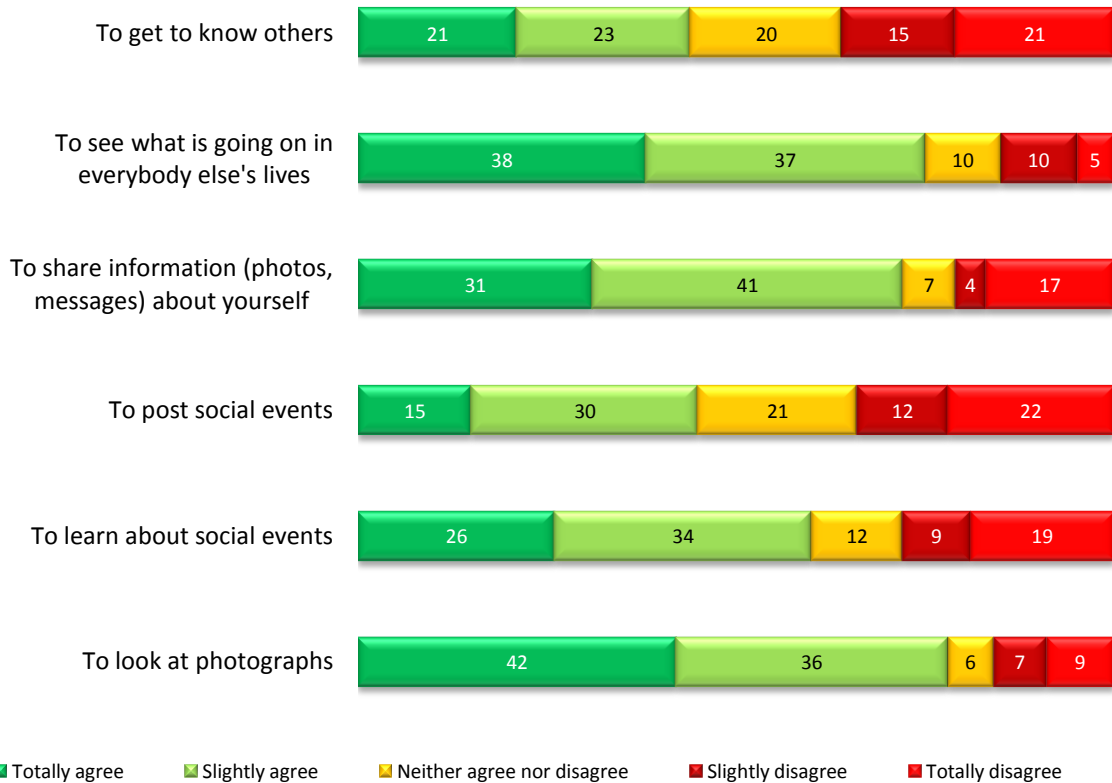


Figure 11 Information seeking/sharing uses and gratifications

A high percentage of respondents were clearly ambivalent about using Facebook 'to get to know others' (Figure 11). This does indicate that respondents were not opposed to the idea of using Facebook to get to know others. It is also possible that the actual rate of agreement is higher than what is indicated by this statement as all Facebook users are getting to know others better through open communication, photographs and comments. It is possible that respondents were ambivalent concerning this statement because they use Facebook to interact with people they already know. Surprisingly, people openly admitted that they are inquisitive and use Facebook to learn about other individuals and their lives (agreeing with the statement concerning using Facebook 'to see what is going on in everybody else's lives'). This substantiates the finding that the majority of the respondents use Facebook to 'look at photographs' (see Figure 11).

In addition, the results illustrated in Figure 11 seem to indicate 'narcissistic' and 'individualistic' use of Facebook as respondents seem to like 'sharing information about themselves' almost as much as they like 'to see what is going on in everybody else's lives'.

Figure 11 also shows that many respondents use Facebook to learn about social events and logistics. Facebook allows users to see who is invited to the social gathering and who has accepted or declined the invitation. However, a much smaller percentage of respondents

reported using Facebook to make postings concerning social events. Some respondents indicated that they are neutral with regards to social events of Facebook. This could indicate that these people are open to the idea of using Facebook for social events but have not yet actually used Facebook for this purpose.

5.4.2 The role of Facebook in face-to-face interaction

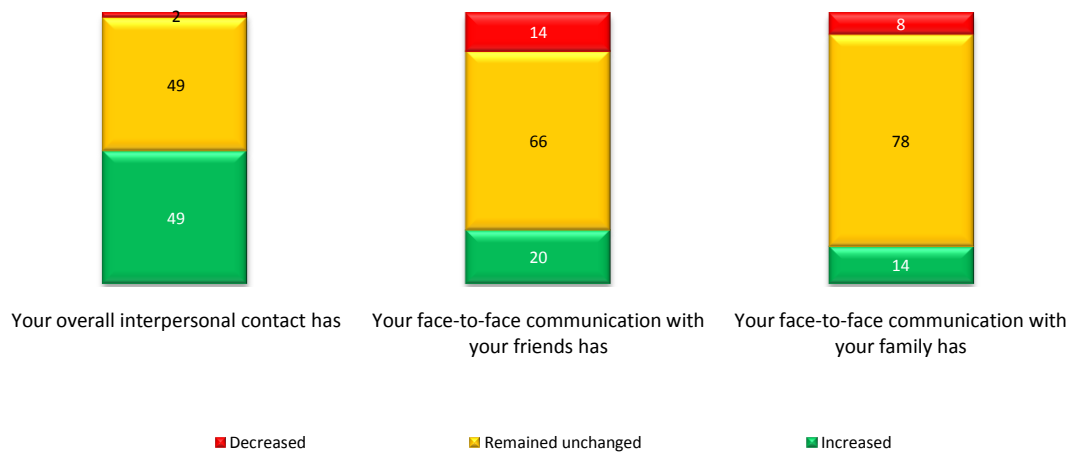


Figure 12 Facebook and interpersonal contact

Half of the sample either claimed that Facebook use has increased their overall interpersonal contact or that their overall interpersonal contact has remained unchanged as a result of Facebook (Figure 12). Only three respondents indicated that their overall interpersonal contact has decreased as a result of Facebook use.

20% of respondents indicated that face-to-face communication with friends has increased. Two thirds of respondents claimed that their face-to-face interaction with their friends has remained unchanged. Just over 10% of the respondents indicated that face-to-face communication with their friends has decreased since being on Facebook.

Similarly, over three quarters of the respondents agreed that face-to-face communication with their family has remained unchanged. 14% of respondents claimed that communication with their family has increased (Figure 12). Only 8% of respondents indicated that their communication with their family has decreased since being on Facebook.

5.4.3 Affinity and Facebook use

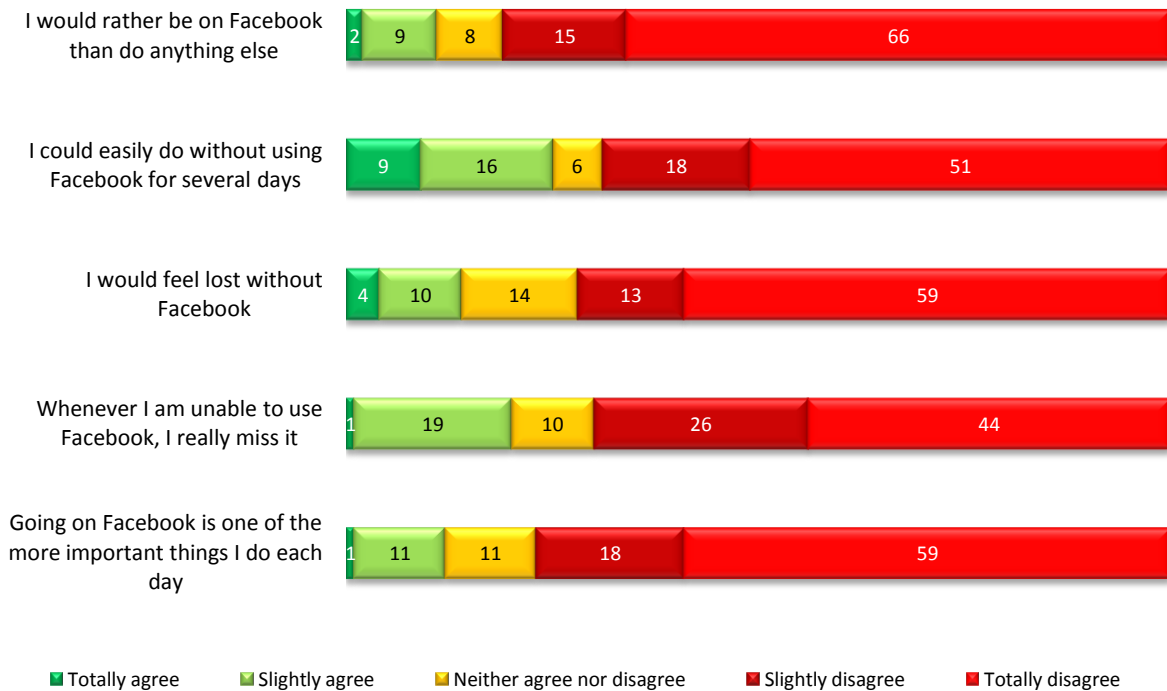


Figure 13 Facebook affinity

Figure 13 displays contradictory results. Although the majority of the sample asserted that they would ‘not feel lost without Facebook’, ‘they don’t miss Facebook if they can’t use it’, ‘Facebook is not one of the more important things they do each day’ and ‘they would not rather be on Facebook than do anything else’ the sample still displays a strong affinity towards Facebook. This affinity is demonstrated by the respondents stating that they ‘could not easily do without using Facebook’ (Figure 13). This confirms the finding that the majority of the respondents use Facebook on a daily basis (Figure 5).

The younger respondents (18-26 years) comprised the small fraction of the sample that would feel ‘lost without Facebook’. It is once again important to take the maturity of the sample into account when interpreting these results.

5.4.4 Respondents’ privacy issues and Facebook use

The respondents were asked whether they have privacy concerns regarding Facebook. Figure 14 shows that the sample was almost equally divided over privacy concerns regarding Facebook.

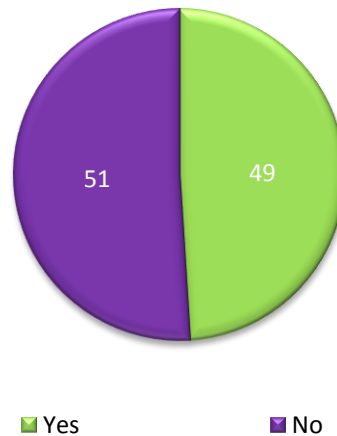


Figure 14 Respondents and their privacy concerns regarding Facebook

Respondents who indicated that they did have privacy concerns regarding Facebook were asked to answer an open ended question regarding these concerns. 46 respondents answered the open ended question. The transcript of the open ended answers was inserted into Wordle (www://wordle.net), an internet analysis tool. The Wordle programme generates 'word clouds' from text provided. The clouds give greater prominence to words that appear more frequently in the source text (Feinberg, 2009). The Wordle analysis tool was used to identify key words in relation to the respondents' privacy concerns. The keywords were:

people, know, see, information, social, employer, access, life, details, security, wrong idea, comments, personal, private, scared, weird, gossip, profile, knowing, hacks, photo and children.

First, Facebook can be used to communicate with people. Secondly, people can use Facebook to view information, communication and photographs that they were not intended to see. These elements can be viewed as positive or negative. Facebook can be used positively to meet new people, maintain relationships and get to know people. Facebook can also be used negatively to gather detrimental information about other people. It is also possible for people to see personal information, communication or photos on your profile that they were not supposed to see. Many respondents reported being afraid that friends, employers or future employers might potentially use information found on Facebook against them.

As mentioned, there is general concern about the security of Facebook, despite the existence of privacy settings. People express numerous concerns such as: “as soon as one uploads pictures it becomes the property of Facebook” (Respondent 104 - Female, 26) and “one can never be certain that people are really blocked from one’s profile” (Respondent 71 - Male, 23). Respondents feared that individuals such as government officials and Facebook management would be able to access Facebook in the future. Respondent number 112 (Female, 22) said: “I also worry about the duration of and storage mechanisms Facebook uses. Could governments or big corporations access past photos or conversations of yours via Facebook’s administration”. These statements indicate that respondents had a lack of trust in Facebook’s access controls, and this led to respondents feeling a lack of control. This lack of control makes respondents cautious about what they post of Facebook. Respondent 90 (Female, 22) asserts:

“it is difficult to control who reads your status and look at your photos. So when I write a status, I have to be careful that I don’t offend my boss, a friend of a different race etc., and as for photos, I have to choose carefully so that people don’t get the wrong idea. The reason is that there is no certain way of knowing that there is only your friends (or people you have accepted as a friends) viewing your profile. There is no certain way of knowing that the person you accepted was really your friend and there is no certain way you do not know that future employers do not view your Facebook profile to get to know what type of person you really are”

Many respondents mentioned that they are scared that employers or potential future employers might see compromising photographs or read negative comments.

The core of the respondents’ privacy concerns regarding Facebook involves the “big brother syndrome”, as Respondent 44 (Female, 31) calls it. Respondents are scared that individuals can have access to their private information. Many respondents stated that their e-mail address, cell number and relationship status is on their profile. The respondents are concerned about the type of information that people can view/have access to and also the types of people in general that are able to view one’s account. Respondents also stated that

they feel uneasy about strangers being able to comment on one's photo and random people having access to personal information. Respondent 5 (Female, 21) explained that "you get sick people" out there. Respondent 13 (Female, 31) said: "I feel it offers exposure to people who you may not wish to see what happened to you or how you have moved on in life". Similarly, respondents also feel anxious that some friends can see your photos and posts because "people can use your information for their purposes, not necessarily good ones" (Respondent 106 - Female, 25). Respondents raised concerns regarding gossip or false stories.

In addition, there is a general concern that technologically capable people will be able to hack into accounts. Respondent 97 (Female, 28) stated that: "any clever IT dude can hack into the system". A further concern is that Facebook could mediate identity theft. "Identity theft, this just makes it so much easier - my husband received an email stating that he had inherited millions from a person with the same surname. I believe because the person could access his profile, the person was able to tailor his email in such a way, that it was very convincing. Of course one has to pay R200 first, for the inheritance details" (Respondent 60 – Female, 31).

Lastly, the respondents also stated that they are concerned about children's safety on Facebook. According to Respondent 45 (Female, 25) this is because "children share so easily". Respondents were worried that children might become targets of stalking, kidnapping or sexual offenders.

5.4.5 Personality facets of the sample

Respondents were asked to choose five personality descriptions and three personality traits that they identify with. The personality descriptions and personality traits of the sample are displayed in Figure 16 and Figure 17 respectively. These descriptions and traits describe the respondents' superficial view of themselves and what is important to them. The term superficial is used as the respondents describe themselves on the surface. It is a biased description (through the respondent's own eyes) of his or her active behavior and does not provide much depth or detail. This description is also not substantiated by other sources. This information makes it possible to determine whether age or gender has a significant relationship with the subjective personality descriptions or personality traits.

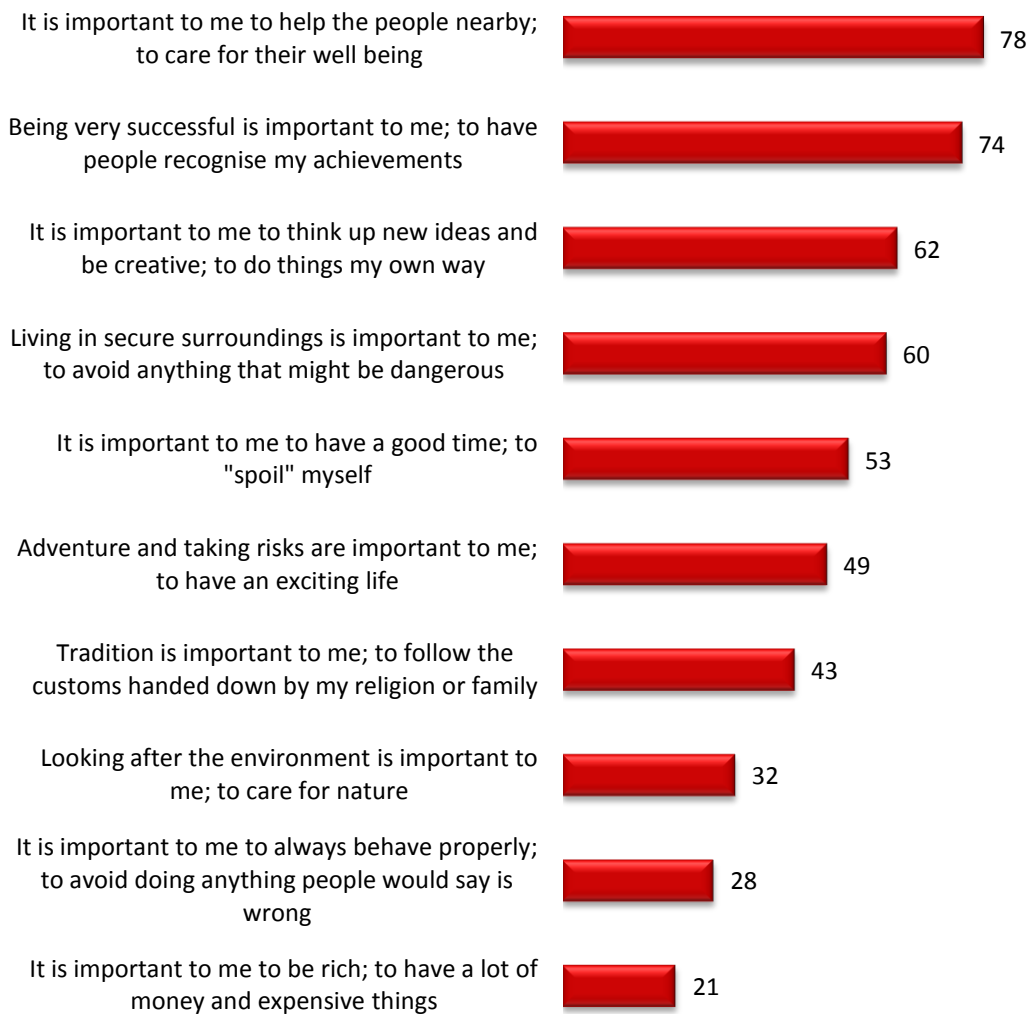


Figure 16 Personality descriptions of the sample

The top three personality descriptions that respondents used to describe themselves revolve around caring for other individuals, achieving success and being creative or formulating ideas. In addition, the top three personality traits that respondents use to describe themselves revolve around being down to earth, outgoing and being intellectual. These traits and descriptions offer an understanding of how the respondents view themselves.

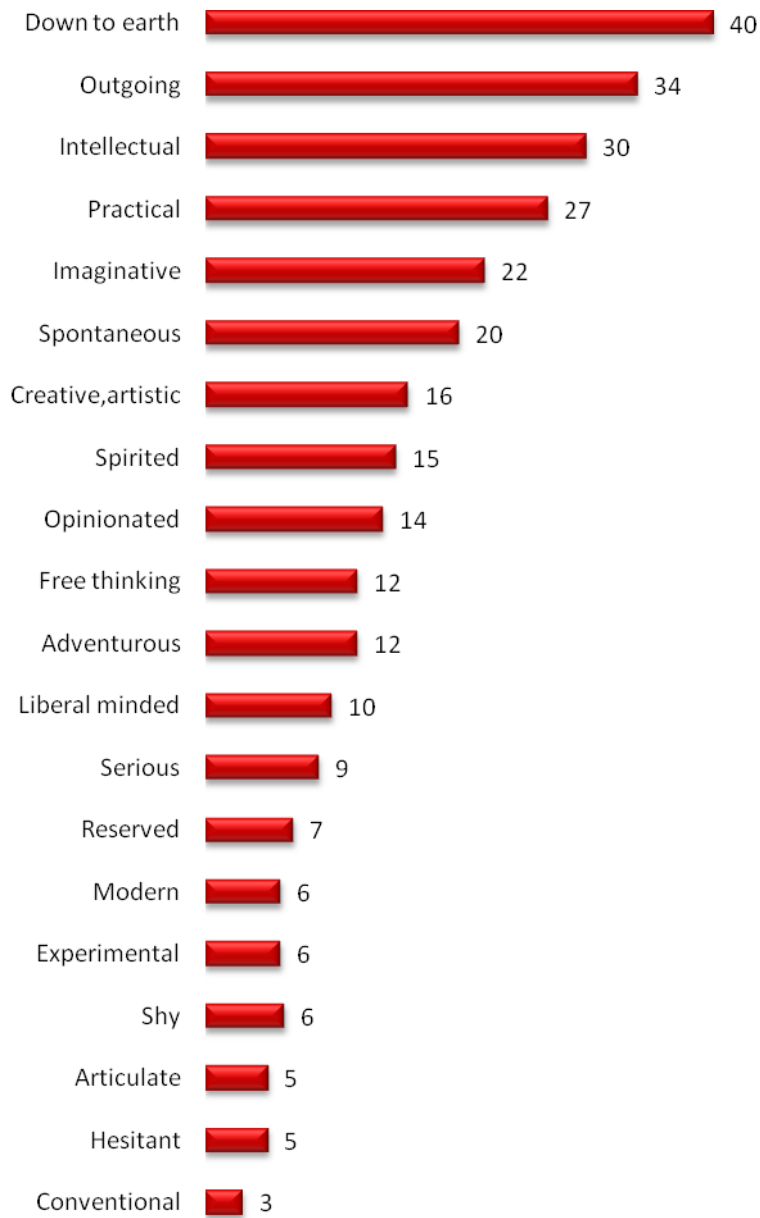


Figure 17 Personality traits of the sample

5.5. Statistical analysis

The following section presents the findings of the data analysis. The various statistical tests conducted serve to identify significant relationships between the various variables. Furthermore, evidence is also presented for certain statistical assumptions that have been met. At the heart of this is a normal distribution. The normal distribution is an approximation to facilitate the estimate of chance events. The graph of a normal distribution is a bell-shaped curve (Lachenicht, 2007b). One of the assumptions of most of the statistical tests used in the current study is that of an inexact normal distribution. Due to the output being too lengthy, this is included in the appendix (*Appendix B - Section A*).

The descriptive statistics for each variable are represented in Table 4. The table includes the number of respondents that answered the question, the minimum and maximum values, the mean, standard deviation, range and variance of each variable.

Table 4 Descriptive statistics of the variables

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Age of respondent	111	28	18	46	26.57	4.874	23.757
Gender of respondent	111	1	1	2		.498	.248
Race of respondent	111	3	1	4		.648	.420
Time per week recoded	111	5.00	1.00	6.00		1.52924	2.339
On each visit, time spent	111	1	1	2		.312	.097
Time specification	111	175	5	180	27.68	26.210	686.945
Where do you access Facebook1	111	4	1	5		1.598	2.555
Where do you access Facebook2	52	3	2	5		.608	.369
Where do you access Facebook3	13	2	3	5		.555	.308
Where do you access Facebook4	1	0	4	4		.	.
Do you have privacy concerns regarding Facebook	111	1	1	2		.502	.252
Personality description 1	111	9	1	10		2.835	8.039
Personality description 2	111	9	1	10		2.690	7.236
Personality description 3	111	9	1	10		2.542	6.462
Personality description 4	111	9	1	10		2.364	5.591
Personality description 5	111	9	1	10		2.826	7.988
Personality trait 1	111	19	1	20		4.981	24.813
Personality trait 2	111	18	1	19		5.070	25.708
Personality trait 3	111	19	1	20		5.997	35.961



To develop a romantic relationship/dating purposes	111	4.00	1.00	5.00	1.5315	1.15065	1.324
To keep in touch with old friends	111	4.00	1.00	5.00	4.6667	.77850	.606
To keep in touch with current friends	111	4.00	1.00	5.00	4.6847	.72591	.527
To feel like I belong to a group/to feel connected	111	4.00	1.00	5.00	2.5135	1.41976	2.016
To get support from others	111	4.00	1.00	5.00	2.2613	1.37320	1.886
To feel less lonely	111	4.00	1.00	5.00	1.9009	1.29302	1.672
To look at photographs	111	4.00	1.00	5.00	3.9550	1.26050	1.589
To learn about social events	111	4.00	1.00	5.00	3.3964	1.44775	2.096
To post social events	111	4.00	1.00	5.00	3.0450	1.39732	1.952
To share information (photos, messages etc.) about yourself	111	4.00	1.00	5.00	3.6396	1.39995	1.960
To see what is going on in everyone else's lives	111	4.00	1.00	5.00	3.9189	1.16880	1.366
For the fun or pleasure of communicating	111	3.00	2.00	5.00	4.3243	.86510	.748
To feel relaxed	111	4.00	1.00	5.00	3.0811	1.38259	1.912
For entertainment purposes	111	4.00	1.00	5.00	3.7477	1.29663	1.681
To get up to date with new technology	111	4.00	1.00	5.00	2.7207	1.36296	1.858
For academic purposes	111	4.00	1.00	5.00	1.7748	1.14165	1.303
It's a habit, just something I do	111	4.00	1.00	5.00	3.0811	1.44685	2.093
To occupy my time	111	4.00	1.00	5.00	2.8559	1.41323	1.997
As a result of social pressure	111	4.00	1.00	5.00	1.9279	1.31917	1.740
Because it is convenient for communication	111	4.00	1.00	5.00	4.1532	1.07194	1.149
To communicate easily	111	4.00	1.00	5.00	3.9009	1.32085	1.745
Because it is quick or fast for communication	111	4.00	1.00	5.00	3.8198	1.32252	1.749
For the ease of getting hold of someone	111	4.00	1.00	5.00	3.7568	1.26646	1.604
To get in touch with people you don't have time to see in person	111	4.00	1.00	5.00	4.1622	1.06635	1.137
To meet new people	111	4.00	1.00	5.00	2.4955	1.52479	2.325
Because it is simple and easy	111	4.00	1.00	5.00	4.0811	1.03691	1.075
To keep in touch with friends or relatives that live far away	111	4.00	1.00	5.00	4.6396	.80671	.651
To express myself	111	4.00	1.00	5.00	2.9820	1.39468	1.945



To get to know others	111	4.00	1.00	5.00	3.0811	1.43423	2.057
Time spent on Facebook per week	111	5.00	1.00	6.00	4.4324	1.52924	2.339
I would rather be on Facebook than do anything else	111	4.00	.00	4.00	.6577	1.07446	1.154
I could easily do without using Facebook for several days	111	4.00	.00	4.00	1.1351	1.42374	2.027
I would feel lost without Facebook	111	4.00	.00	4.00	.8739	1.23669	1.529
Whenever I'm unable to use Facebook, I really miss it	111	4.00	.00	4.00	1.0631	1.17767	1.387
Going on Facebook is one of the more important things I do each day	111	4.00	.00	4.00	.7568	1.08054	1.168
Your overall interpersonal contact has	111	2.00	.00	2.00	1.0090	.99540	.991
Communicating face-to-face with your friends has	111	2.00	.00	2.00	.5315	.80701	.651
Communicating face-to-face with your family has	111	2.00	.00	2.00	.3694	.72523	.526
Valid N (listwise)	1						

5.5.1 One sample t-test

Mean scores were calculated for each variable and summed [$X=103.3$]. A composite mean [$X=2.79$] was then calculated for all the variables combined [$X=103.3/37$ variables]. Subsequently, a one sample t-test with a 95% confidence interval was conducted to determine the significance of each variable by comparing each variable's mean to the composite variable mean. The results are presented in Table 5. Variables that were significant are indicated in different colours: the variables written in red are significantly lower than the average and the variables written in green are significantly higher than the average.

Table 5 Significance of each variable (t-test)

	Test Value = 2.8					
					95% Confidence Interval of the Difference	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
To develop a romantic relationship/dating purposes	-11.614	110	.000	-1.26847	-1.4849	-1.0520



To keep in touch with old friends	25.262	110	.000	1.86667	1.7202	2.0131
To keep in touch with current friends	27.354	110	.000	1.88468	1.7481	2.0212
To feel like I belong to a group/to feel connected	-2.126	110	.036	-.28649	-.5535	-.0194
To get support from others	-4.133	110	.000	-.53874	-.7970	-.2804
To feel less lonely	-7.326	110	.000	-.89910	-1.1423	-.6559
To look at photographs	9.653	110	.000	1.15495	.9179	1.3921
To learn about social events	4.340	110	.000	.59640	.3241	.8687
To post social events	1.848	110	.067	.24505	-.0178	.5079
To share information (photos, messages etc.) about yourself	6.319	110	.000	.83964	.5763	1.1030
To see what is going on in everyone else's lives	10.086	110	.000	1.11892	.8991	1.3388
For the fun or pleasure of communicating	18.564	110	.000	1.52432	1.3616	1.6871
To feel relaxed	2.142	110	.034	.28108	.0210	.5411
For entertainment purposes	7.701	110	.000	.94775	.7039	1.1916
To get up to date with new technology	-.613	110	.541	-.07928	-.3357	.1771
For academic purposes	-9.461	110	.000	-1.02523	-1.2400	-.8105
It's a habit, just something I do	2.047	110	.043	.28108	.0089	.5532
To occupy my time	.416	110	.678	.05586	-.2100	.3217
As a result of social pressure	-6.965	110	.000	-.87207	-1.1202	-.6239
Because it is convenient for communication	13.300	110	.000	1.35315	1.1515	1.5548
Because it is quick or fast for communication	8.124	110	.000	1.01982	.7711	1.2686
To communicate easily	8.781	110	.000	1.10090	.8524	1.3494
For the ease of getting hold of someone	7.959	110	.000	.95676	.7185	1.1950
To get in touch with people you don't have time to see in person	13.458	110	.000	1.36216	1.1616	1.5627
To meet new people	-2.104	110	.038	-.30450	-.5913	-.0177
Because it is simple and easy	13.017	110	.000	1.28108	1.0860	1.4761
To keep in touch with friends or relatives that live far away	24.026	110	.000	1.83964	1.6879	1.9914
To express myself	1.375	110	.172	.18198	-.0804	.4443
To get to know others	2.065	110	.041	.28108	.0113	.5509



I would rather be on Facebook than do anything else	-21.007	110	.000	-2.14234	-2.3444	-1.9402
I could easily do without using Facebook for several days	-12.320	110	.000	-1.66486	-1.9327	-1.3971
I would feel lost without Facebook	-16.409	110	.000	-1.92613	-2.1587	-1.6935
Whenever I'm unable to use Facebook, I really miss it	-15.539	110	.000	-1.73694	-1.9585	-1.5154
Going on Facebook is one of the more important things I do each day	-19.922	110	.000	-2.04324	-2.2465	-1.8400
Your overall interpersonal contact has	-18.956	110	.000	-1.79099	-1.9782	-1.6038
Communicating face-to-face with your friends has	-29.615	110	.000	-2.26847	-2.4203	-2.1167
Communicating face-to-face with your family has	-35.310	110	.000	-2.43063	-2.5670	-2.2942

5.5.2 Cross tabulations

The following section discusses cross tabulations conducted on the data. The independence of gender and grouped age categories was tested on the various responses on all variables. The most important finding centres on the difference between male and female respondents' privacy concerns.

5.5.2.1 The relationship between gender and overall Facebook use

Cross tabulations between gender and privacy concerns (Table 6) revealed gender differences. The Pearson Chi-square test was used to test the hypothesis that gender and privacy concerns are independent. This test shows that gender and privacy concerns are indeed dependent or related as the test yielded a significant result [significance value .000; $X^2(1)=44.237$, $p < .0001$] as illustrated in Table 7.

Table 6 Relationship between gender and privacy concerns regarding Facebook

			Do you have privacy concerns regarding Facebook		Total
			Yes	No	
Gender of respondent	Male	Count	6	42	48
		% within Gender of respondent	12.5%	87.5%	100.0%
		% within Do you have privacy concern regarding Facebook	11.1%	73.7%	43.2%
		% of Total	5.4%	37.8%	43.2%
	Female	Count	48	15	63
		% within Gender of respondent	76.2%	23.8%	100.0%
		% within Do you have privacy concern regarding Facebook	88.9%	26.3%	56.8%
		% of Total	43.2%	13.5%	56.8%
Total	Count	54	57	111	
	% within Gender of respondent	48.6%	51.4%	100.0%	
	% within Do you have privacy concern regarding Facebook	100.0%	100.0%	100.0%	
	% of Total	48.6%	51.4%	100.0%	

Table 7 The relationship between gender and Facebook use

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	44.237 ^a	1	.000		
Continuity Correction ^b	41.724	1	.000		
Likelihood Ratio	48.469	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	43.838	1	.000		
N of Valid Cases	111				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 23.35.					
b. Computed only for a 2x2 table					

Table 8 indicates that age of respondent and privacy concerns regarding Facebook are dependent [$X^2(4) = 9,584$; $p < 0.05$]. However, this result was interpreted with caution because two cells have an expected count of less than five (Lachenicht, 2007a).

Table 8 The relationship between age and privacy concerns of Facebook

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.584 ^a	4	.048
Likelihood Ratio	10.144	4	.038

Linear-by-Linear Association	6.094	1	.014
N of Valid Cases	111		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 3.41.

Other cross tabulations and corroborating Chi-square tests revealed the following variable relationships as insignificant or independent. An insignificant relationship means that no gender differences were noted for the variables.

- Time spent on each visit (hours vs. minutes) on Facebook and gender [$X^2(1)=1.248$; $p>0.05$].
- The relationship between the variables time spent on Facebook per week and gender is insignificant [$X^2(5)=3.760$; $p>0.05$], regardless of the fact that women (20%) report going on Facebook more times per day (several times per day) than men (14%).
- The explicit time specification on each visit to Facebook and gender are unrelated [$X^2(12)=14.598$; $p=0.05$].

5.5.3 Independent samples t-test

Independent samples t-tests were conducted between numerous variables (all the questions in the questionnaire) and gender to determine whether there were significant differences in the answers of males and females. Levene's test was used to first determine the existence of equal variances. In instances where variances were unequal, conclusions were based on the t-value based on equal variances not assumed. Due to the output length, statistical evidence of Levene's test can be found in the appendix (*See Appendix B - Section A*).

Results revealed that males and females are equal on the majority of statements with only a few exceptions. It was not possible to include the entire lengthy SPSS output document in this dissertation. Instead, focus was placed on statements that reflect a significant difference (two-tailed) between males and females at a 95% confidence level as follows:

- To keep in touch with old friends [$t(109)=2.140$; $p<.001$]: Males scored significantly higher with regards to this sentiment
- As a result of social pressure [$t(109)=0-2.266$; $p<.001$]: Females scored significantly higher on this dimension
- To see what is going on in everybody else's lives [$t(109)=-2.897$; $p<.001$]: Females scored significantly higher on this attitudinal statement.

These findings were interpreted with caution because the sample contained significantly more females (14% more) than males. If the sample had consisted of an even gender distribution the results may have been different. In addition, although the mean differences between males and females on the attitudinal statements were significant the actual mean differences were not particularly large. It would thus be irresponsible to assert that these findings are truly significant.

Similarly, the following t-tests yielded insignificant results:

- The total affinity score and gender [$t(109) = -0.486$; $p > 0.0001$]
- Time per week [$t(109) = 0.030$; $p > 0.0001$]; explicit time specification [$t(109) = 1.366$; $p > 0.0001$] and time spent on Facebook with each visit (minutes vs hours) [$t(109) = 1.113$; $p > 0.0001$]

5.5.3.1 The relationship between personality traits/descriptions of the sample and gender and age

Independent sample t-tests revealed an insignificant relationship between personality descriptions (Figure 16) and personality traits (Figure 17) and gender. The following statistics were found:

Personality description 1- $t(109) = -.209$; $p > .001$

Personality description 2- $t(109) = .159$; $p > .001$

Personality description 3- $t(109) = -.1894$; $p > .001$

Personality description 4- $t(109) = -.930$; $p > .001$

Personality description 5- $t(109) = .338$; $p > .001$

Personality trait 1- $t(109) = .018$; $p > .001$

Personality trait 2- $t(109) = .048$; $p > .001$

Personality trait 3- $t(109) = 1.034$; $p > .001$.

Similarly, an ANOVA revealed an insignificant relationship between age (recoded) and personality descriptions (Figure 16) and personality traits (Figure 17).

Personality description 1- $F(4, 106) = .159$; $p > .001$

Personality description 2- $F(4, 106) = .440$; $p > .001$

Personality description 3- $F(4, 106) = 1.417$; $p > .001$

Personality description 4- $F(4, 106) = 1.289$; $p > .001$

Personality description 5- $F(4, 106) = .367; p > .001$)

Personality trait 1- $F(4, 106) = .827; p > .001$)

Personality trait 2- $F(4, 106) = .852; p > .001$)

Personality trait 3- $F(4, 106) = 1.174; p > .001$).

5.5.4 One-way ANOVA

A one-way ANOVA was conducted to determine the relationship between the grouped age categories and numerous variables. However, the significant relationships between the variables and age (as proven by the ANOVA) should be interpreted with caution due to the fact that there is not an even spread of frequencies within the grouped ages.

Results were as follows:

- Significant effect of age and using Facebook to look at photographs [$F(4,106) = 2.495, p < 0.0001$]: Age group 35+ differed significantly from age group 18-22.
- Significant effect of age and using Facebook to learn about social events [$F(4, 106) = 2.907, p < 0.0001$]: Age group 35+ differed significantly from age group 18-22.
- Significant effect of age and using Facebook to post social events [$F(4, 106) = 3.130, p < 0.0001$]: Age group 18-22 differed significantly from age group 27-30.
- Significant effect of age and using Facebook to communicate easily [$F(4, 106) = 3.080, p < 0.0001$]: Age group 35+ differed significantly from age group 18-22 and 27-30.
- Significant effect of age and using Facebook for the ease of getting hold of someone [$F(4, 106) = 4.524, p < 0.0001$]: Age group 35+ differed significantly from age groups 18-22, 23-26, 27-30 and 31-34.
- Significant effect of age and using Facebook to get in touch with people you don't have time to see in person [$F(4, 108) = 2.932, p < 0.0001$]: Age group 35+ differed significantly from age groups 23-26 and 27-30.

5.5.5 The relationship between affinity towards Facebook and Facebook use

Respondents completed five Likert-type items about their level of affinity toward Facebook. These items had been used in previous research on Ipod affinity (Ferguson et al., 2007). Responses to these five items were summed (reverse coding was used as necessary) to create a Facebook affinity score, which ranged from 5.0 to 24.0. Respondents with higher composite affinity scores showed more affinity towards Facebook than respondents with lower composite affinity scores.

A scree plot was plotted to determine whether there is a linear relationship between explicit time specification of Facebook use and affinity towards Facebook (Figure 18). The scree plot indicates that there seems to be a relationship between total affinity score and time specification. This finding pointed towards the need to calculate a correlation coefficient for these variables.

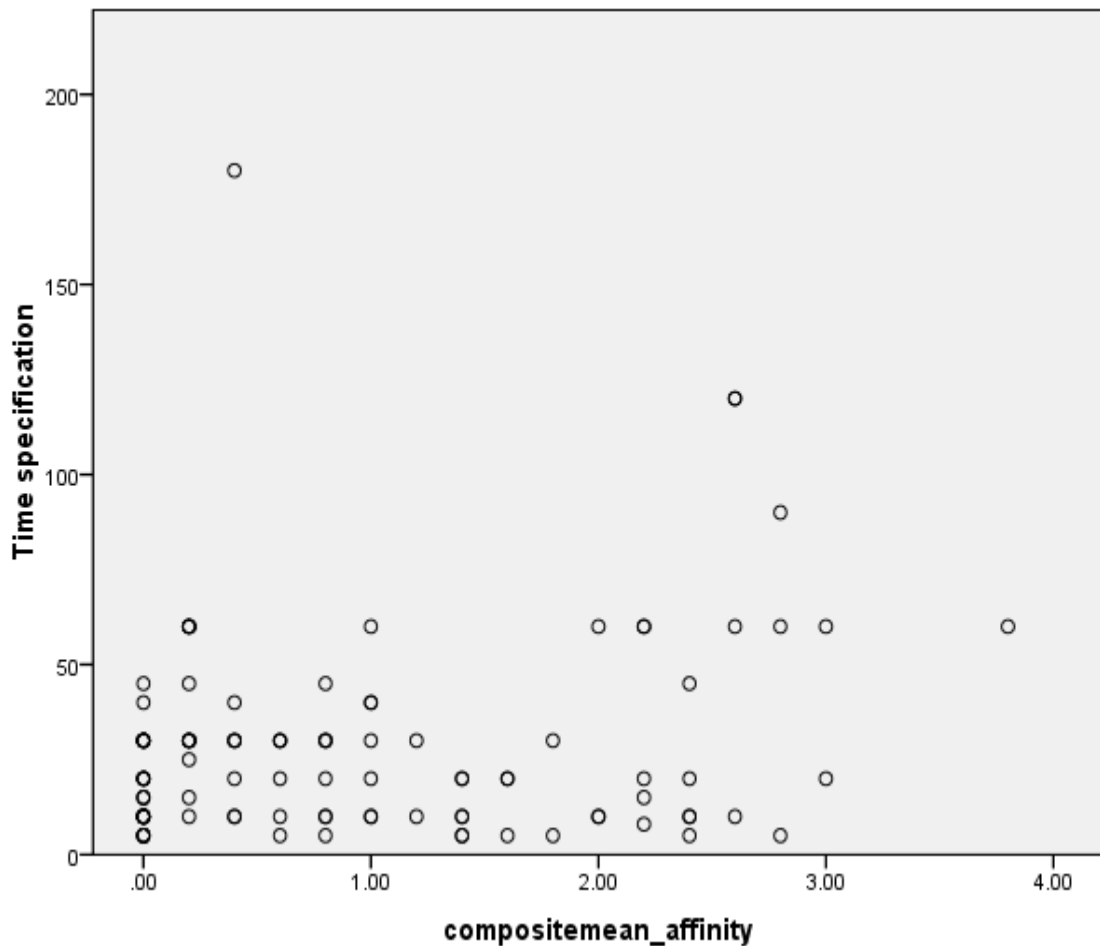


Figure 18 Scree plot depicting the relationship between Facebook use and affinity

A one-tailed test of correlation (the reasoning behind the choice of a one-tailed test is because the higher the affinity, the higher the Facebook use) was calculated at a 95% confidence level. The SPSS output shown in Table 9 shows that the composite affinity (total affinity felt towards Facebook) score correlates positively and significantly with Facebook use

[$r=0.226$; $p<0.01$]. However, the magnitude of the r value [$r=0.226$] suggests the existence of a weak relationship between affinity and Facebook use (Lachenicht, 2007c).

Similarly there is a correlation between affinity felt towards Facebook and time spent on Facebook per visit (minutes vs hours) [$r=0.295$; $p<0.01$]. This correlation is displayed in Table 9. There is less than 0.01 probability that this correlation coefficient could have occurred by chance. This means that the correlation is significant and indicates a relationship between Facebook use and affinity. However, the r value indicates a weak relationship (Lachenicht, 2007c).

Due to the fact that there is a correlation between time allocated to Facebook use and affinity it stands to reason that a relationship exists between affiliation towards Facebook and Facebook use per week. A one-tailed Pearson Correlation was used to determine this relationship. The results in Table 9 indicate that the relationship between affinity and Facebook access per week is positively significant [$r=0.316$; $p<0.01$].

Table 9 Correlations between time allocated to Facebook and affinity

		Time specification	compositemean_ affinity	Time per week recoded	On each visit, time spent
Time specification	Pearson Correlation	1	.226**	.101	.731**
	Sig. (1-tailed)		.009	.145	.000
	N	111	111	111	111
compositemean_ affinity	Pearson Correlation	.226**	1	.316**	.295**
	Sig. (1-tailed)	.009		.000	.001
	N	111	111	111	111
Time per week recoded	Pearson Correlation	.101	.316**	1	.054
	Sig. (1-tailed)	.145	.000		.288
	N	111	111	111	111
On each visit, time spent	Pearson Correlation	.731**	.295**	.054	1
	Sig. (1-tailed)	.000	.001	.288	
	N	111	111	111	111

** . Correlation is significant at the 0.01 level (1-tailed).

A two-tailed correlation coefficient was also calculated and there is a positive relationship (see Table 10) between affinity towards Facebook and the total composite score of Facebook's role in face-to-face interaction [$r=0.414$; $p<0.01$]. These correlations are not indicative of cause and effect relationships.

Table 10 Correlation between Facebook affinity and the substitution of face-to-face interaction

		compositemean_affinity	compositemean_faceface
compositemean_affinity	Pearson Correlation	1	.414**
	Sig. (2-tailed)		.000
	N	111	111
compositemean_faceface	Pearson Correlation	.414**	1
	Sig. (2-tailed)	.000	
	N	111	111

** . Correlation is significant at the 0.01 level (2-tailed).

5.5.6 Linear Regression

Table 11 illustrates the relationship/correlation between affinity and time that Facebook is used. The value of R Square is .051, which indicates that affinity for Facebook accounted for 5.1% of the variation in the time that Facebook is used. Many different elements or factors can be used to explain this model of Facebook use, but this regression model, which only included affinity, accounted for 5.1% of the variation. This means that almost 95% of the variation in Facebook use cannot be explained by affinity alone. It is therefore apparent that other variables also play a role in Facebook use.

Table 11 Model summary of prediction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.226 ^a	.051	.042	25.648

a. Predictors: (Constant), compositemean_affinity

Table 12 shows that the model overall had a significant prediction ability. The table does not contain information regarding the individual contributions of variables in the model. However, as only one predictor variable was used in the model it is possible to infer that this variable is a good predictor.

Table 12 Anova depicting degree of prediction

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3861.335	1	3861.335	5.870	.017 ^a
	Residual	71702.629	109	657.822		
	Total	75563.964	110			

a. Predictors: (Constant), compositemean_affinity

b. Dependent Variable: Time specification

Table 13 shows that $b_0=22.204$. This can be interpreted as meaning that when no affinity is felt toward Facebook (when $x=0$), the model predicts that an individual will spend 22.20 minutes on Facebook at a time.

Table 13 Coefficients depicting affinity felt towards Facebook and Facebook use

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.204	3.323		6.682	.000
	compositemean_affinity	6.108	2.521	.226	2.423	.017

a. Dependent Variable: Time specification

Table 13 shows that the slope (B) of the regression line for the equation is 6.108 (with a standard error of 2.521). The slope of the regression line represents the change in the outcome associated with a unit change in the predictor. Therefore, if the predictor variable of affinity is increased by a single unit, the model predicts that 15.40 more minutes would be spent on Facebook. The regression equation that produces the line of best fit for the data linking time allocated to Facebook use and affinity felt toward Facebook is written as follows:

$$\text{Predicted time use} = \text{Intercept} + B (\text{Affinity})$$

$$\text{Predicted time use} = 22.204 + 6.108 (\text{Affinity})$$

The slope (B) in the above equation linking Facebook use and affinity is statistically significant [$t=2.423$, $p<.05$]. The result is that one will be able to predict one variable (time use) from another (affinity).

To summarise, values of b featured in Table 13 represent the change in the outcome resulting from a unit change in the predictor. If a predictor is having a significant impact on one's ability to predict the outcome then the b should be not equal to zero and big relative to the standard error. In this table the b values [6.108 and 22.204] are different from zero and therefore the table shows that affinity makes a significant contribution [$p<.001$] to predicting time use of Facebook.

5.5.7 Factor analysis

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in the variables that might be caused by underlying factors. High values (close to 1.0) generally indicate that a factor analysis may be useful in interpreting the data. Similarly, Bartlett's test of sphericity tests the hypothesis that the correlation matrix is an

identity matrix (Whitley, 2005). This would indicate that the variables are unrelated and therefore unsuitable for structure detection. Small values (less than 0.05) at the significance level indicate that a factor analysis may be useful. The results of the KMO analysis and test of sphericity are illustrated in Table 14. These results indicated that factor analysis was justified for the current study.

Table 14 KMO and Bartlett's test to indicate factor analysis is justified

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.749
Bartlett's Test of Sphericity	Approx. Chi-Square	1613.170
	Df	435
	Sig.	.000

The scree plot in Figure 19 below depicts the factors or components on the X-axis and their corresponding eigenvalues on the Y-axis. As the components move further to the right, their eigenvalues drop. Catell's scree test suggests dropping factors after the factor starting at the 'elbow' of the plot (Nyland, 2007). In this case the researcher decided that only the first six factors were worth retaining and all the factors after the second elbow of the scree plot were discarded.

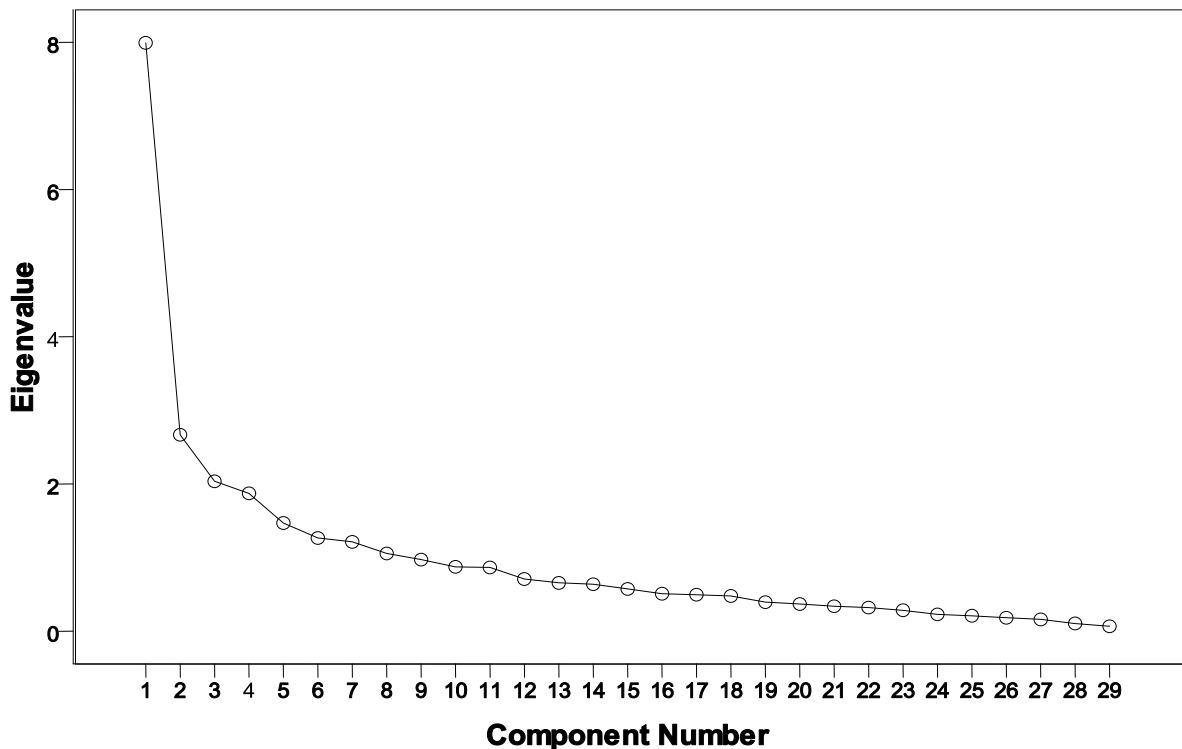


Figure 19 Scree plot depicting the factors as formed by the variables

Respondents completed 29 5-point Likert-type statements concerning their motivations for Facebook use. These statements were based on a list of motivations used in previous research and on the researcher's own formulations. Principal component factor analysis with

varimax rotation was conducted on those 29 items. As a result, the factors are orthogonal, i.e. uncorrelated. A minimum eigenvalue of 1.0 was used and values less than 0.5 were suppressed. The large number of attitudinal uses and gratifications statements was reduced through factor analysis to a smaller number of more relevant factors or components. Results are displayed in Table 15. The factor analysis extracted the more relevant themes or elements from the attitudinal statements to illuminate the sample's core uses and gratifications of Facebook.

A loading of 0.6 or higher is regarded as high for a specific factor and attitudinal statement or variable. The rotated matrix below shows that the first eight factors or components had high loadings from the following attitudinal statements. Table 15 also shows that the more one moves up with the factors, the less attitudinal statements form part of that specific factor, i.e. the less differentiated the component or factor is. The preceding conclusion points to the reason why only the first six factors were regarded as important.

Table 15 Rotated component matrix depicting the factors as formed by the variables

	Component							
	1	2	3	4	5	6	7	8
To develop a romantic relationship/dating purposes	.067	-.115	.328	.373	.047	.105	.137	.643
To keep in touch with old friends	.379	.162	.037	.078	.017	-.308	.535	.207
To keep in touch with current friends	.151	.127	-.039	.008	.509	-.158	.400	.297
To feel like I belong to a group/to feel connected	.025	.107	.086	.744	.069	.108	.434	-.123
To get support from others	.347	.239	.143	.606	.177	-.162	.123	.122
To feel less lonely	.092	.269	.154	.744	.142	.219	-.088	.001
To look at photographs	.146	.331	.244	.113	-.321	.519	.198	-.078
To learn about social events	.114	.142	.782	.083	.248	.088	.086	-.112
To post social events	.162	.146	.815	.180	.170	.142	.094	.077
To share information (photos, messages etc.) about yourself	.112	.531	.295	.274	-.056	-.053	.278	.201
To see what is going on in everyone else's lives	.073	.710	-.054	.246	-.185	.172	.187	-.079
For the fun or pleasure of communicating	.227	.641	.063	-.013	.151	.179	.307	.058
To feel relaxed	.057	.230	.080	.162	.318	.226	.637	-.182
For entertainment purposes	.184	.232	.257	.151	.037	.343	.607	.025
To get up to date with new technology	.058	.072	.282	.045	.702	.158	.129	-.165
For academic purposes	.061	.001	.110	.222	.638	.184	.010	-.046
It's a habit, just something I do	.149	-.068	.050	-.104	.177	.797	.022	.103
To occupy my time	-.042	.062	.052	.230	.083	.748	.060	-.029
As a result of social pressure	.083	-.196	.178	.204	.179	.003	.083	-.708
Because it is convenient for communication	.803	.143	.108	.084	.226	-.029	.063	.057
Because it is quick or fast for communication	.870	-.053	.112	.177	.013	.088	.256	-.036

To communicate easily	.791	.086	.114	.111	-.135	.097	.363	-.057
For the ease of getting hold of someone	.758	.204	.136	.093	.023	.118	-.116	-.184
To get in touch with people you don't have time to see in person	.493	.519	.061	-.040	.129	.079	-.024	.061
To meet new people	.178	.369	.383	.019	.548	-.135	.021	-.021
Because it is simple and easy	.601	.367	.047	-.236	.219	-.154	.165	.223
To keep in touch with friends or relatives that live far away	.490	.385	-.179	.092	.124	.109	-.200	.262
To express myself	.092	.615	.395	.220	.158	-.005	.100	.176
To get to know others	.187	.689	.181	.158	.285	-.226	.009	-.048

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 11 iterations.

The solution represented in Table 15 identified eight components accounting for 67.48% of the variance:

- **Factor 1:**
 - to communicate easily;
 - because it is convenient for communication;
 - because it is quick or fast for communication;
 - because it is simple and easy; and
 - for the ease of getting hold of someone.
- **Factor 2:**
 - to see what is going on in everybody else's lives;
 - to get to know others;
 - to share information (photos, messages etc.) about yourself;
 - for the fun or pleasure of communicating;
 - to express myself; and
 - to get in touch with people you don't have time to see in person.
- **Factor 3:**
 - to post social events; and
 - to learn about social events.
- **Factor 4:**
 - to feel less lonely;
 - to feel like I belong to a group/to feel connected; and
 - to get support from others.
- **Factor 5:**
 - to get up to date with new technology;
 - to meet new people;
 - for academic purposes; and
 - to keep in touch with current friends.
- **Factor 6:**

- it is a habit, just something I do;
- to occupy my time; and
- to look at photographs.
- **Factor 7:**
 - to feel relaxed;
 - for entertainment purposes; and
 - to keep in touch with old friends.
- **Factor 8:**
 - to develop a romantic relationship; and
 - as a result of social pressure.

Reliability analysis was conducted on each of the first six factors to determine the consistency of the scale items in each of the factors. The first six factors were chosen because factor seven and factor eight were dropped from the analysis as suggested by Cattell's scree plot. All subsequent findings were based on factors one to six. The following Cronbach Alpha coefficients were found for each factor's scale composition and illustrate the adequacy of each factor and the scales or attitudinal statements within each factor:

Factor 1: 0.873

Factor 2: 0.803

Factor 3: 0.821

Factor 4: 0.730

Factor 5: 0.657

Factor 6: 0.631

5.6 Conclusion

This chapter presented the statistical analysis of the data provided by the sample. The chapter looked at how Facebook users are using the social networking site by focusing on the uses and gratifications that are met through the utilization of the site, determining whether Facebook displaces face-to-face interaction for the sample, establishing the relationship between Facebook affinity and Facebook use and ascertaining whether individuals have privacy concerns regarding Facebook. In addition, various statistical analyses were employed to explore the existence of relationships between different variables or between different variables and gender and age.

The results revealed that the respondents use Facebook for a range of uses, the most important use being convenient, fast and enjoyable communication. Despite the communication function Facebook use does not lead to the self-reported substitution of face-

to-face interaction. As expected, the more affinity or attachment a respondent feels towards Facebook, the more they will use Facebook.

The following chapter provides a synopsis of the analysis presented in the preceding chapter. The key findings are discussed and compared with existing literature on CMC and social networking websites. In addition, the limitations of the current study and directions for future research are highlighted.

CHAPTER 6

Discussion

6.1 Introduction

This study aimed to investigate South African Facebook users' reasons for using the site and whether affinity predicts Facebook use. The study also investigated the role of Facebook in the displacement of face-to-face interaction for the South African sample. Results revealed that respondents used Facebook for different purposes. Individuals tailor their usage to fit their specific needs on a particular day. Furthermore, although each user meets his or her personal and individual needs through the utilization of the site they remain aware that other users of Facebook may use the site for different purposes. This chapter serves as a summary of the study. The findings are presented and discussed in the context of the literature review and the theoretical framework. The limitations of the study are then highlighted. Recommendations for Facebook use and future research are then discussed. The chapter ends with the researcher's own conclusions regarding the topic.

6.2 Synopsis of the literature review

Scholars agree that the internet has changed our lives dramatically in terms of factors such as communication, relationships, efficiency, productivity and behaviour. Scholars further agree that the internet will continue to change our lives (Bargh & McKenna, 2004; Di Gennaro & Dutton, 2007; Herring, 2002; 2004; Plant, 2004). There is ongoing debate concerning CMC's usefulness in maintaining contact with distant friends and family (Boase, 2008; Etzioni & Etzioni, 1999; Hampton & Wellman, 1999; 2003; Herring, 2004; Lenhart et al., 2001; Whitty, 2008), the internet's potential negative impact on social relationships and social networks and the role of CMC in the displacement of face-to-face interaction (Kang, 2007; Kraut et al., 1998; Lin et al., 2007; Mesch & Talmud, 2007; Moody, 2001; Morahan-Martin & Schumacher, 2003; Nie & Erbring, 2000).

The reasons for CMC's popularity revolve around control, reciprocity, breadth, depth, speed, efficiency and time saving elements (Etzioni & Etzioni, 1999; Lin et al., 2007; Peter & Valkenburg, 2006). The current study found that many of these elements are present in Facebook. A decade of debating regarding the internet has shown CMC's impact should not be viewed in isolation. Instead, it is important to consider it holistically and to look at how users integrate CMC into their daily schedules and how the online and offline worlds can be

fused (Di Gennaro & Dutton, 2007; Nyland, 2007). It is therefore important to determine the uses associated with each CMC medium and the gratifications that users are meeting through these mediums (Ishii & Ogasahara, 2007). This is particularly applicable to newest CMC medium of social networking websites (Nyland, 2007), such as Facebook (Donath & Boyd, 2004; Dwyer et al., 2007; Ellison et al., 2007; Nyland, 2007; Raacke & Bonds-Raacke, 2008).

The current dissertation focused on Facebook because few studies have addressed social networking websites (De Souza & Dick, 2007; Ellison et al., 2007; Nyland et al., 2007; Raacke & Bonds-Raacke, 2008), especially in South Africa (Allen, 2010). By investigating the uses of Facebook and the needs and gratifications met through these uses the researcher was able to arrive at a provisional understanding of the impact of social networking sites on real world relationships and face-to-face interaction in the South African context.

6.3 The sample's use of Facebook

Fifty seven percent of the respondents in this study used Facebook daily, a result that supports previous findings (Dwyer, n.d.; Lenhart & Madden, 2005; Raacke & Bonds-Raacke, 2008). Only 29% of respondents used Facebook 1-2 days or 3-5 days of the week. A small fraction of respondents (14%) used Facebook less often or only now and again. The time individuals spent on Facebook varied, but the mean time spent on Facebook per visit for the respondents was 28 minutes. This supports the findings of Ellison et al. (2007) and Pempek, Yermolayeva and Calvert (2009) who mention that students reported spending 10-30 minutes per visit using Facebook. Similarly, most of the respondents accessed Facebook at home (69%). Just over 40% of respondents accessed Facebook via their cell phone (42%) or at work (43%). The high rate of accessing Facebook at work illustrates why many companies worldwide have banned Facebook use at work or blocked Facebook access at work.

The researcher was curious to establish if certain personality traits/descriptions are disposed to use Facebook. Results were fragmented. The top three personality descriptions that respondents used to describe themselves are caring for other individuals, success/achievement and creativeness/idea formulation. 60% of the respondents also mentioned that security is important to them. Just over half (53%) of the sample asserted that it is important for them to spoil themselves and to have a good time. It is possible that Facebook is a vehicle for this 'spoiling' or enjoyment. Respondents indicated that money and being rich are not as important, but they might have under claimed on this sentiment as a result of social desirability. Most respondents described themselves as being down to earth (40%), outgoing (34%) and intellectual (30%). Some respondents also rated themselves as being practical (27%) or imaginative (22%). Less popular personality traits were shy (6%),

hesitant (5%), articulate (5%) and conventional (3%). In addition, the relationship between age and gender, and personality descriptions/traits proved insignificant.

6.4 Uses and gratifications

The following section examines the sample's reported Facebook use. The respondents' reasons for accessing and using Facebook are discussed. Evidently the main use of Facebook revolves around communication and reciprocal facets that form part of communication.

6.4.1 Popular uses and gratifications

In June 2009, 250 million people were Facebook users (Zuckerberg, 2009) and 90 million users visit Facebook every day (Nash, 2008). This high rate of utilization suggests that Facebook must be meeting users' personal and social needs (Raacke & Bonds-Raacke, 2008). Concurring with previous findings (Raacke & Bonds-Raacke), this study identified prominent uses and gratifications of Facebook. Popular uses and gratifications were defined as those factors which are significantly higher than the average for all 37 of the uses and gratifications combined (mean=2.79). These uses and gratifications are:

- to keep in touch with old friends;
- to keep in touch with current friends;
- to look at photographs;
- to learn about social events;
- to share information (photos, messages etc) about yourself;
- to see what is going on in everybody else's lives;
- for the fun or pleasure of communicating;
- to feel relaxed;
- because it is convenient for communication;
- because it is quick or fast for communication;
- to communicate easily;
- for the ease of getting hold of someone;
- to get in touch with people you don't have time to see in person;
- to get to know others;
- for entertainment purposes;
- it is just a habit;
- because it is simple and easy; and

- to keep in touch with friends and relatives that live far away.

6.4.2 Facebook is mainly used for communication

Evidently, the study revealed a recurring theme concerning using Facebook for the purpose of communication. The majority of the respondents endorsed sentiments regarding the communication elements of Facebook. Communication factors such as efficiency, speed, simplicity and convenience are recurring themes in respondents' reasons for using Facebook. This supports the findings of Acquisti and Gross (2006) and Nyland (2007) who assert that the convenience factor is very important to users. The ease of communication plays a role in the respondents' view of the medium as simple and easy. Similarly, the presence of many communication modes allows user to feel that they have an array of options to meet their communication needs. Facebook therefore enables communication that is simple and easy, which can be customized to mood or availability. These findings illustrate that users are largely meeting a communication gratification from the utilization of Facebook.

6.4.3 Synopsis of factors or elements that illuminate Facebook use

This study found six major factors that cut across Facebook use and which illustrate underlying constructs of the uses and gratifications. These factors were named short and sweet communication, inquisitive and expression purposes, social motives, reasons related to loneliness, purposeful motives and habitual/boredom motives. These factors were useful in helping to identify general areas of motivation for Facebook use and gratifications. Furthermore, as mediated by the uses and gratifications theory, a user/individual-level view is provided as opposed to a mass exposure perspective (Stafford, Stafford & Schkade, 2004). Essentially a user/individual perspective seeks to illuminate what each user does with Facebook as opposed to what all Facebook members or a group of users do with Facebook. These factors are consistent with factors found in previous studies (De Souza & Dick, 2007; Nyland, 2007; Pempek et al., 2009) and, in keeping with uses and gratifications theory, illuminate what people do with Facebook as opposed to what Facebook does to the people that use it (Chou & Hsiao, 2000; Roberts & Bachen, 1981). The study showed that Facebook users have a variety of needs such as communication and expression and these needs lead to different degrees of exposure to Facebook applications and result in various degrees of gratification and pleasure experiences. This finding is supported by the theory of uses and gratifications (Chou & Hsiao, 2000).

Factor 1, short and sweet communication, is related to those items that relate to Facebook as a convenient communication medium. Comparable items in other studies include "gratification

opportunities” (Nyland, 2007), “ease of use” (De Souza & Dick, 2007), “communication with friends” (Pempek et al., 2009), “social bonding” (Ishii & Ogasahara, 2007), “communication medium appeal” (James et al., 1995) and “convenience” (Papacharissi & Rubin, 2000).

Factor 2, Inquisitive and Expression purposes, reflects those items where a reciprocal relationship exists between the sharing and receiving of information and where individuals are allowed to express themselves through communication media. It corresponds to items found in other uses and gratification studies of communication media such as “social utility” (Nyland, 2007), “social outcomes” (Song et al., 2004), “curiosity” (De Souza & Dick, 2007), “establishing personal identity” (Pempek et al., 2009), “freer expression” (Pempek et al., 2009), “information seeking” (Ishii & Ogasahara, 2007; Song et al., 2004) and “interpersonal utility” (Papacharissi & Rubin, 2000). This contrasts to research by Acquisti and Gross (2006) that found that showing information about oneself/advertising oneself is ranked very low.

Factor 3, Social Motives, consists of items that allow respondents to learn and communicate about social events. This is related to “use for social events” (Nyland et al., 2007) and “source of information” (Raacke & Bonds Raacke, 2008).

Factor 4, Loneliness, reflects those items that enable respondents to feel less lonely and to feel part of a larger group. This is related to De Souza and Dick’s (2007) “social pressure”, Pempek et al.’s (2009) “sociability” and Song et al.’s. (2004) “virtual community”.

Factor 5, Purposeful Motives, is concerned with specific uses such as respondents using Facebook specifically to communicate with current friends, to meet new people or to get up to date with new technology. This is related to De Souza and Dick’s (2007) “usefulness”.

Factor 6, Habitual/boredom, consists of items that are similar to Nyland’s (2007) “entertainment” and Pempek et al.’s (2009) “activity outcomes” (Song et al., 2004) as well as “enjoyment” (De Souza & Dick, 2007), “filling up free time” (Ellison et al., 2007), “diversion” (Song et al., 2004), “entertainment” (James et al., 1995; Nyland et al., 2007) and “pass time” (Papacharissi & Rubin, 2000).

Interestingly, only 30% of the respondents indicated an interest in using Facebook to meet new people. This agrees with the findings of Ellison et al. (2007) and Pempek et al. (2009) who assert that Facebook users spend significantly more time using Facebook to communicate with people that they have an offline connection with than meeting new people. In contrast, Ishii and Ogasahara (2007) found that meeting new people was an important factor in their study.

Lastly, significant correlations between gender and the uses and gratifications indicate that male and female. Facebook users differ in their usage. Males were significantly more likely to use Facebook for keeping in touch with old friends, whereas females were significantly more likely to use Facebook as a result of social pressure and to see what is going on in everybody else's lives. Similarly, the relationship between the usage variables (to look at photographs, to learn about social events, to post social events, to communicate easily, for the ease of getting hold of someone and to keep touch with people you don't have time to see in person) and age indicates that age determines Facebook user's uses and gratifications.

6.5 The displacement hypothesis

Previous research has investigated whether new media acts as a substitute or displaces other non-media activities such as face-to-face interaction (Cai, 2005; James et al., 1995; Kraut et al., 1998; Nie & Erbring, 2000; Nyland, 2007; Nyland et al., 2007; Robinson, Kestnbaum, Neustatl & Alvarez, 2000; Wellman et al., 2001). In the present study the hypothesis that Facebook displaces or substitutes face-to-face interaction was not supported. The majority of the respondents shared the sentiment that face-to-face communication with family or friends has remained unchanged. Furthermore, an equal percentage of respondents believed that Facebook has either increased their overall interpersonal contact or kept it unchanged.

The current findings contrast to those of Kraut et al. (1998) who found that the internet displaces family communication within the household, decreases the user's social circle and leads to depression and loneliness. These findings are also in direct contrast to the findings of Kayany and Yelsma (2000), who found that online media leads to the functional displacement of newspapers, television viewing, telephone usage and family conversations and those of Wellman et al. (2001) who assert that online communication supplements face-to-face interaction and telephone communication.

However, the current findings support the findings of Nyland (2007) who asserts that there is no evidence that social networking sites displace face-to-face interaction. Instead, social networking sites are just another form of 'diversionary media', i.e. media where users can communicate while doing other activities such as looking at other's profiles or photos, thus enabling individuals to 'hang out' or spend time in the digital world. The current research also supports previous studies (Boase et al., 2006; Cai, 2005; DiMaggio et al., 2001; Lenhart et al., 2007; Livingstone & Bovill, 2000) that found that users integrate the internet into the ways in which they communicate with others and combine face-to-face interaction, telephone contact and computer contact. However, according to these studies face-to-face interaction still triumphs all forms of communication. Two other studies also support the current findings. James et al. (1995) also found that electronic bulletin boards displace the telephone, book

reading, television viewing and letter writing but not face-to-face interaction. Robinson et al. (2000) found that there is no evidence of time displacement and users of the internet showed signs of a more active social life than non-users.

It seems that Facebook use does not lead to the self-reported substitution or displacement of face-to-face interaction. It is even possible that some users (respondents who indicated that Facebook has increased their overall interpersonal contact) use Facebook to initiate real world dates and meetings with their offline friends (Nyland, 2007). Essentially, the internet complements rather than displaces patterns of behavior such as communication and face-to-face interaction. Furthermore, the findings illustrate that Facebook helps users cultivate social networks and manage large social networks. This suggests that Facebook is enabling online communication that mimics offline interaction (Guidry, 2007). In accordance with the niche theory and the theory of uses and gratifications, Facebook (a new medium) survives, grows, competes and prospers by providing users with gratifications (Dimmick et al., 2004). A complementary viewpoint is sufficient to explain Facebook interaction and face-to-face interaction (Dutta-Bergman, 2004). The ultimate impact of Facebook will flow not from its "exotic capabilities but the fact that users are putting it to ordinary, even mundane uses" (Parks & Floyd, 1998, p. 96).

The discussion above shows that the displacement hypothesis as postulated by the niche theory was not supported by the findings in this study. Instead, respondents asserted that Facebook does not lead to the self-reported substitution of face-to-face interaction. This could indicate that face-to-face interaction and Facebook do not occupy the same 'niches' in the media environment (Nyland, 2007). This argument is supported by the uses and gratifications of Facebook identified in the current study. Only a few of the Facebook uses and gratifications occupy the same niche as face-to-face interaction. These uses and gratifications are to keep in touch with current friends, to get to know others, to get support from others and to meet new people. Thus, displacement has not occurred because there is no competition between face-to-face interaction and Facebook in terms of uses and gratifications for individuals. Essentially, the 'main niche' occupied by Facebook involves its convenient nature as short and sweet communication. Research by Acquisti and Gross (2006) and Nyland (2007) supports this finding. Evidently, Facebook is used as a tool to maintain offline relationships and to maintain contact with people that have crossed one's life path but are not really friends. Essentially, people do not have enough time at their disposal to ensure that all their communication and relationship maintaining is in the face-to-face context but "by using social networking sites, individuals are able to hang out and interact in a virtual diachronic environment in anticipation of real world encounters" (Nyland, 2007, p. 6).

6.6 Facebook and the role of affinity

Various studies have focused on internet use and the potential for addiction (Chou & Hsiao, 2000; Liu & Kuo, 2007; Song et al., 2004). The reasons for internet addiction include:

- interpersonal relationships, parent-child relationship and social anxiety (Liu & Kuo, 2007);
- communication pleasure experience, hours, sex, satisfaction score and hours of e-mail use (Chou & Hsiao, 2000);
- certain gratifications such as virtual community, monetary compensation, diversion and personal status (Song et al., 2004); and
- maladaptive cognitions (Davis, 2001).

Similarly, in a qualitative study of MySpace Dwyer (n.d.) found that social networking sites are potentially addictive. Participants in her study described MySpace as “so addictive, it’s like cocaine, I can’t stop” or “it is just like a cult and sucks you in, and there is no positive thing about it” (Dwyer, n.d., p.4). The current study focused on affinity instead of addiction. Ferguson et al. (2007) also substituted the term in their study of MP3 players as they felt that the term addiction might be an exaggeration and that their findings instead reflected a strong affinity. Although the majority of the sample did not express a strong affinity towards Facebook, the study did show that Facebook use, measured by access per week and time spent per visit, and affinity are related. The significant relationship between affinity and Facebook access per week indicate the more affinity a respondent feels towards Facebook, the more they will use Facebook. Although this was not investigated it is possible that affinity towards Facebook might lead to Facebook addiction through the creation of online relationships.

6.7 Facebook users’ privacy concerns

Facebook users can divulge and share information about themselves and model their social networks online (Govani & Pashley, 2005). Users are offered many benefits such as an alternative avenue for communication, a vehicle to express themselves and various opportunities to get to know others through their photographs. Regardless of these benefits, half of the respondents indicated privacy concerns regarding Facebook. Furthermore, the significant correlation between gender and privacy issues indicates that females have more privacy concerns than males. The foregoing conclusions are in keeping with the findings of previous research (Acquisti & Gross, 2006; Govani & Pashley, 2005; Synovate, 2008).

Privacy concerns revolve around the fact that individuals share a wealth of information on Facebook including their high school, photos, relationship status, cell phone number, e-mail, favourite things, jobs, clubs, address, hometown, interests and birthday (Acquisti & Gross, 2006; Ellison et al., 2007; Govani & Pashley, 2005; Ofcom, 2008). Ellison et al. (2007) indicate that there is a general concern regarding the types of people that view your profile. Their study found that law enforcement, professors, total strangers and administration had viewed their respondents' profiles. However, Govani and Pashley (2005) found that Facebook users generally feel comfortable in sharing their personal information. This finding may be a result of the fact that the study was conducted in 2005 when social networking sites were still relatively new. Similarly, Acquisti and Gross (2006), Dwyer (n.d.) and Hinduja and Patchin (2008) found in their studies regarding My Space and Facebook that respondents were not as concerned about privacy as they felt that users were responsible for their own protection. However, as people have become increasingly aware of Facebook's potential as a communication medium the realization of the potential dangers associated with Facebook has also grown. These fears are fueled by word of mouth and negative media coverage involving stalking and abduction (Hinduja & Patchin, 2008; Patton, 2007) on Facebook and other social networking websites.

This study found that although Facebook users have a measure of control over their privacy through making decisions regarding what they post, they still believe that there is a window of opportunity for their 'privacy to be invaded unnecessarily'. There was a reciprocal relationship between the lack of trust in Facebook and the lack of control the respondents felt. Privacy themes that emerged involved the types of information that can be viewed by others, the types of people that can view one's profile, the accessibility of one's profile or information and the safety of children. Langran's (n.d.) and Synovate's findings corroborate this research and indicate that children's web use, with specific focus on social networking websites, needs to be monitored by parents and teachers.

6.8 Elucidating the research questions

The current study consisted of 111 respondents who completed a survey posted on Facebook. The primary research question was: "*What uses and gratifications are associated with the use of Facebook*"? Additional research questions included:

- What is the role of Facebook in the self-reported substitution of face-to-face interaction for Facebook users?
- What is the relationship between Facebook and affinity, i.e. does affinity predict Facebook use?

The findings show that Facebook users are using Facebook as a multipurpose and versatile communication tool. Facebook is used for many communication purposes including:

- to keep in touch with new and current friends;
- to keep in touch with individuals that live far away;
- to get in touch with people that you don't have time to see in person;
- because it is quick or fast for communication;
- to share information i.e. communication about yourself and to see what is going on in everybody else's life;
- for fun communication;
- to communicate easily; and
- because it is simple and easy.

The information presented indicates that Facebook users are using Facebook for its intended purpose of communication.

Although respondents used Facebook mainly for communication this communication did not lead to the self-reported substitution of face-to-face interaction. Only a fraction of the sample (between 2%-14%) indicated that Facebook has either decreased their overall interpersonal contact or decreased communication with their family and friends. This indicates that the potential does exist for Facebook to substitute face-to-face interaction for certain individuals.

Lastly, Facebook affinity predicts Facebook use. In particular, the amount of time individuals spend on Facebook is related to Facebook affinity. This means that the more affinity a person feels towards Facebook, the more they will be on Facebook. This affinity did not lead to the self-reported substitution of face-to-face interaction for the sample. It is possible that Facebook does not displace face-to-face interaction but instead substitutes other activities such as television watching or reading.

6.9 Limitations of the current study

Although this study is the first of its kind in South Africa it has a number of limitations that could be addressed in future research. One of the major limitations is the convenient nature of the sample. The researcher accessed the sample by forwarding the questionnaire to personal contacts on her Facebook profile. However, this was the only way in which the questionnaire could be distributed because one only has access to personal contacts on Facebook and the researcher wanted to post the questionnaire on Facebook. However, due to the use of

snowball sampling half of the eventual sample consisted of people not known to the researcher personally.

The response rate poses another limitation. Only 111 usable questionnaires were received from the more than 600 people who received an invitation to take part the survey. As mentioned by Ferguson et al. (2007) in their Facebook study posted, invitation recipients might not have been interested in ceasing their activities on Facebook to take part in the survey. Web based surveys are often characterized by low response rates (Whitley, 2002). Furthermore, it has been shown that online questionnaires are biased toward people who spend more time online, because they may be more inclined to fill out the questionnaire (Hargittai, 2008).

A further limitation concerns the relatively small sample size. However, despite the small size the sample formed a normal distribution and was thus suitable for inferential statistical testing. Furthermore, other researchers have also based their Facebook findings on small samples; Charnigo and Barnett-Ellis (2007) collected 126 completed questionnaires and Raacke and Bonds-Raacke (2008) collected 116 completed questionnaires. Another potential problem concerns the fact that the sample was predominantly white, thus eliminating statistical analysis opportunities by race. This is a possible concern as individuals of many different races are present on Facebook.

The survey also asked respondents to respond to pre-defined categories of Facebook uses and gratifications, which limited the opportunity to describe other uses. This means that the findings may have been shaped by the questions themselves. This is not regarded as a problem because it falls within the sphere of the theoretical point of departure, i.e. post-positivism and its relationship with subjectivity. Additionally, the fact that the questionnaire consisted of self-report measures might lead respondents to over claim or to misreport information (Ellison et al., 2007). The fact that only Facebook users formed part of the sample implies the results cannot be generalized to other social networking websites or to all South African Facebook users.

6.10 Future research

Future researchers can conduct similar Facebook uses and gratifications research on a larger sample. Furthermore, research could potentially be conducted on an all student or high school sample in South Africa. A racially representative sample could also be studied. It is expected that a high school sample will yield different uses and gratifications than found in the current study as high school students may use social networking for other purposes.

Future researchers can investigate the personality characteristics of the typical Facebook user or determine Facebook addiction by administering an addiction scale to a Facebook user sample. This will investigate whether individuals are addicted to Facebook and whether Facebook users share similar personality traits.

Another possible avenue for future researchers would be to explore how Facebook can be used in the business world to enhance client relationships and to secure business opportunities such as business deals/sales. Furthermore, research is necessary to determine the potential of Facebook and other social networking sites for online tutoring or home schooling (in schools and universities). In addition, the potential and success rate of Facebook and other social networking sites in the hosting of public forums, such as a missing persons forum or a common complaints forum, warrants investigation.

Qualitative research should also be conducted with social networking users to explore their perceptions, thoughts and concerns with regards to social networking sites. Such research will unveil interesting findings as the group dynamics unfold with the discussion of a specific social networking site.

Lastly, future researchers can tap into and conduct exploratory research on the newest social networking phenomenon of Twitter. As mentioned previously, although social networking sites share the same essential characteristics the cultures that emerge around each site differ (Boyd & Ellison, 2008). This points to the importance of ongoing research.

6.11 Conclusion

The work described above contributes to the ongoing dialogue about the effects, importance and dangers of social networking sites and lends a South African perspective on Facebook use. Much still remains to be explored as social networking sites are constantly evolving. In addition, social networking sites are a 'global phenomenon' (Boyd & Ellison, 2008). The findings of this study show that Facebook provides the respondents with many uses and gratifications, mostly revolving around its convenient nature, without displacing face-to-face interaction. It seems that individuals have incorporated Facebook into their lives as just another means of communication. Whether this means of communication will stand the test of time, or whether it will be displaced by another social networking site or CMC medium, still remains to be seen.

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APPENDIX A

Facebook questionnaire

The following questionnaire is concerned with the social network site **Facebook** and attitudes related to the use of Facebook. Your participation is **voluntary** and you may withdraw at any time. Due to the nature of the study (web based survey), obtaining informed consent is problematic. However, by **submitting** your completed questionnaire, you are indirectly implying **consent** and that you comprehend and acknowledge the nature and terms of the study. In addition, only individuals **18 years and older** can participate in the survey. The questionnaire will take about **8 minutes** to complete and **confidentiality** will be maintained because you are not required to give any identifying information like your ID number or name. Furthermore only I will have access to the survey questionnaire. The information gained from the completion of your questionnaire will be used for a Masters dissertation.

Please be so kind to answer **all** questions in the survey. There is no right or wrong answers. The completed questionnaire can be forwarded to andrea.cloete@hotmail.com / andrea.cloete@ipsos.com

Section A

Demographic Information

Please provide the information below by either ticking the box **(X)** which best describes you or by completing the open ended questions:

1. Age (in years): _____

2. Gender

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>

3. Race

African	<input type="checkbox"/>	Coloured	<input type="checkbox"/>	Other	<input type="checkbox"/>
White	<input type="checkbox"/>	Indian/Asian	<input type="checkbox"/>		

Section B

1. a Please indicate how much time you spend on Facebook per **week** (Tick next to the answer):

Several times a day	<input type="checkbox"/>
About once a day	<input type="checkbox"/>



1-2 days a week	
3-5 days a week	
Every few weeks	
Less often	
Don't know	

b. On **each visit** to Facebook, how much time do you spend on the site?

Minutes	
Hours	

If **minutes** mentioned above, how many minutes? _____

If **hours** how many hours? _____

c. Where do you **access** Facebook?

At your own work station at work	
In your department at another workstation	
Somewhere else at work	
At home	
Cell Phone	
Somewhere else: PLEASE SPECIFY	

Section C

In this section you will find questions relating to **your reasons why you use Facebook**.

Please make a tick (**X**) next to the answer you feel best represents your opinion or indicate by highlighting (**■**) the appropriate opinion.

“I AM A FACEBOOK SUBSCRIBER FOR THE FOLLOWING REASONS”:

Question 1

To develop a romantic relationship / dating purposes

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 2

To keep in touch with old friends

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------



Question 3

To keep in touch with current friends

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 4

To feel like I belong to a group/To feel connected

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 5

To get support from others

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 6

To feel less lonely

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 7

To look at photographs

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 8

To learn about social events

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 9

To post social events

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 10

To share information (photos, messages etc.) about yourself

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------



Question 11

To see what is going on in everyone else's lives

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 12

For the fun or pleasure of communicating

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 13

To feel relaxed

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 14

For entertainment purposes

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 15

To get up to date with new technology

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 16

For academic purposes

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 17

It's a habit, just something I do

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 18

To occupy my time

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 19

As a result of social pressure

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 20

Because it is convenient for communication

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 21

Because it is quick or fast for communication

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 22

To communicate easily

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 23

For the ease of getting hold of someone

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 24

To get in touch with people you don't have time to see in person

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 25

To meet new people

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 26

Because it is simple and easy

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------



Question 27

To keep in touch with friends or relatives that live far away

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 28

To express myself

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 29

To get to know others

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Section D

In this section you will find questions relating to **Facebook and your interpersonal relationships**. Please make a tick (X) next to the answer you feel best represents your opinion or indicate by highlighting () the appropriate opinion.

“Since you have been on Facebook...”

Question 1

...your overall interpersonal contact has

Increased	Remained unchanged	Decreased
-----------	--------------------	-----------

Question 2

...communicating face-to-face with your friends has

Increased	Remained unchanged	Decreased
-----------	--------------------	-----------

Question 3

...communicating face-to-face with your family has

Increased	Remained unchanged	Decreased
-----------	--------------------	-----------



Section E

In this section you will find questions relating to your **affinity towards Facebook** and your opinions regarding it. Please make a tick (**X**) next to the answer you feel best represents your opinion or indicate by highlighting () the appropriate opinion.

Question 1

I would rather be on Facebook than do anything else

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 2

I could easily do without using Facebook for several days

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 3

I would feel lost without Facebook

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 4

Whenever I'm unable to use Facebook, I really miss it

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Question 5

Going on Facebook is one of the more important things I do each day

Totally Disagree	Slightly Disagree	Neither agree/ disagree	Slightly agree	Totally agree
------------------	-------------------	----------------------------	----------------	---------------

Section F

Please make a tick (**X**) next to the answer you feel best represents your opinion or indicate by highlighting () the appropriate opinion.

Do you have **privacy concerns** regarding Facebook?

Yes	No
-----	----

If you answered **yes** to the above, please indicate why you say this....

Section G

- a. To enable the researcher to obtain a good cross section of types of people, could you tell me which of the following descriptions fits your personality the best. Pick **5 descriptions** and rank them in order of preference where **1= 1ST MOST LIKE YOU; 2= 2ND MOST LIKE YOU; 3= 3RD MOST LIKE YOU; 4= 4TH MOST LIKE YOU AND 5= 5TH MOST LIKE YOU**

1	It is important to me to think up new ideas and be creative; to do things my own way.	
2	It is important to me to be rich; to have a lot of money and expensive things	
3	Living in secure surroundings is important to me; to avoid anything that might be dangerous	
4	It is important to me to have a good time; to "spoil" myself	
5	It is important to me to help the people nearby; to care for their well-being	
6	Being very successful is important to me; to have people recognise my achievements	
7	Adventure and taking risks are important to me; to have an exciting life	
8	It is important to me to always behave properly; to avoid doing anything people would say is wrong	
9	Looking after the environment is important to me; to care for nature	
10	Tradition is important to me; to follow the customs handed down by my religion or family	

- b. Doing the same as above, pick **3 personality traits** and rank them in order of preference where **1= 1ST MOST LIKE YOU; 2= 2ND MOST LIKE YOU and 3= 3RD MOST LIKE YOU.**

1	PRACTICAL		8	HESITANT		15	SPONTANEOUS	
2	IMAGINATIVE		9	OUTGOING		16	CONVENTIONAL	
3	DOWN TO EARTH		10	CREATIVE, ARTISTIC		17	ARTICULATE	
4	EXPERIMENTAL		11	INTELLECTUAL		18	RESERVED	
5	SERIOUS		12	SPIRITED		19	FREE THINKING	
6	LIBERAL MINDED		13	ADVENTUROUS		20	MODERN	
7	OPINIONATED		14	SHY				

Thank you for your time and for taking part in this survey.

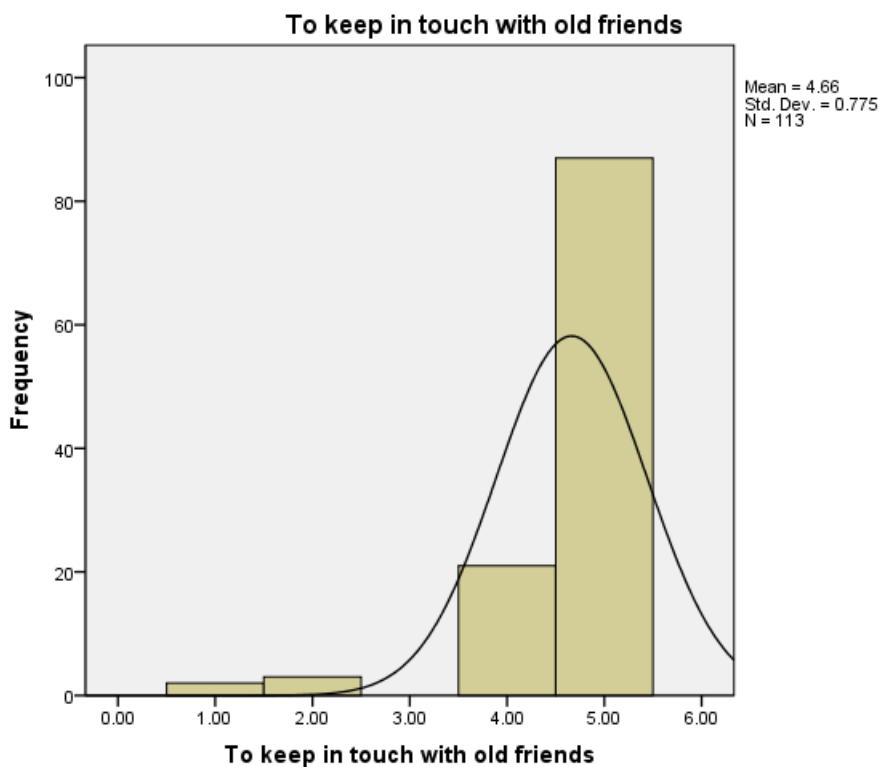
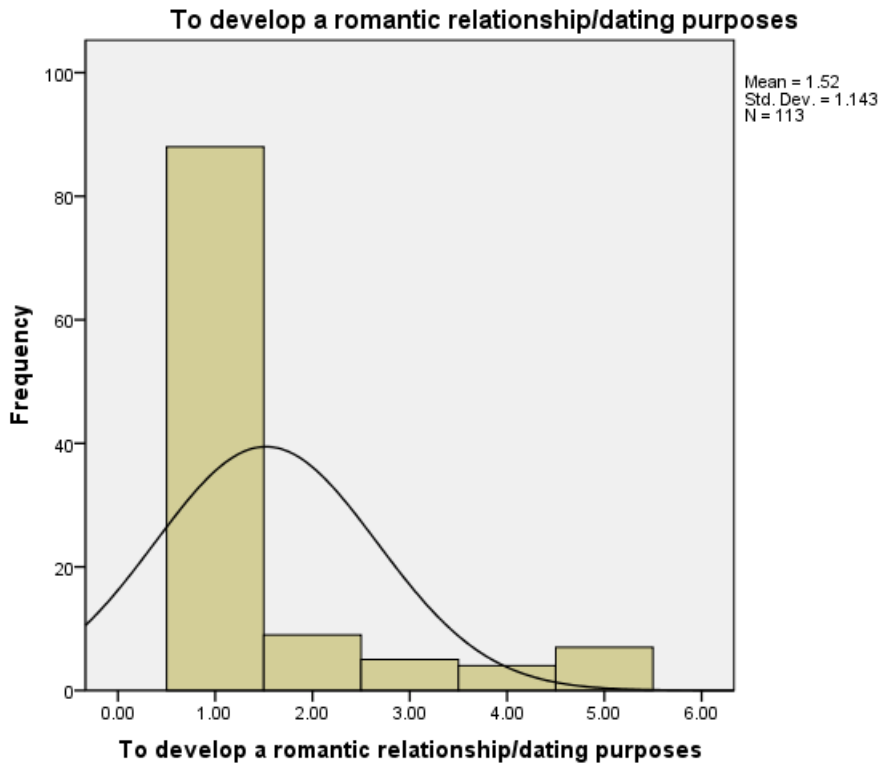


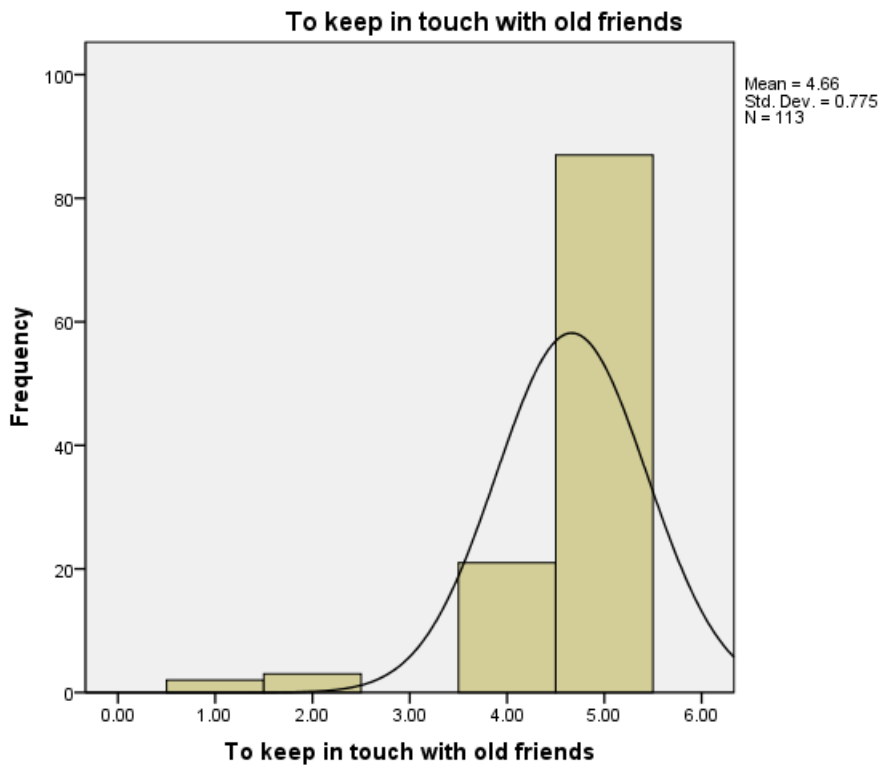
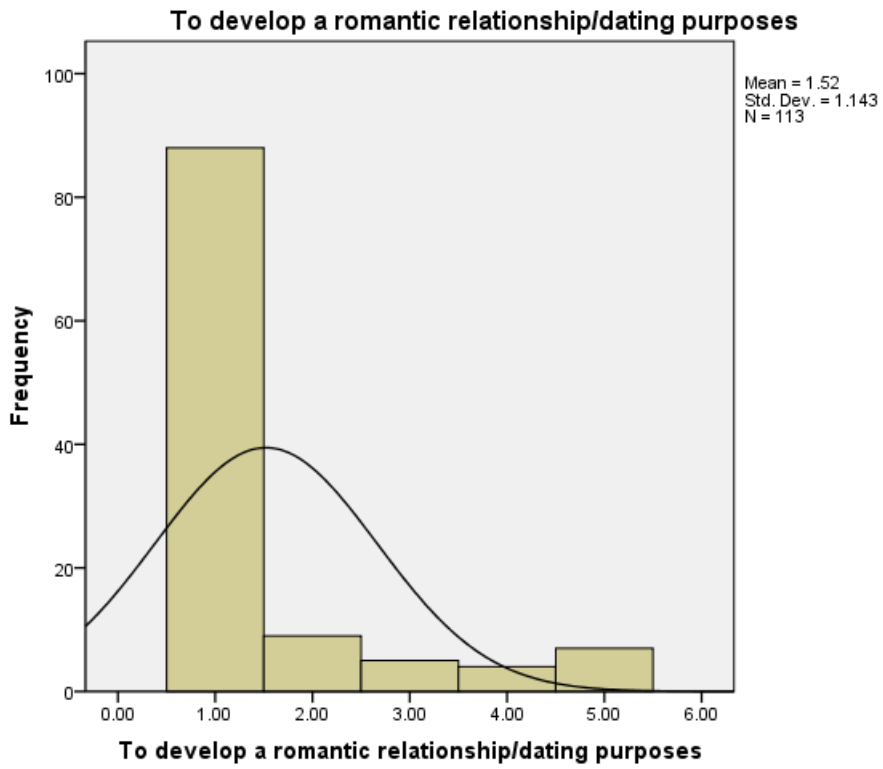
APPENDIX B

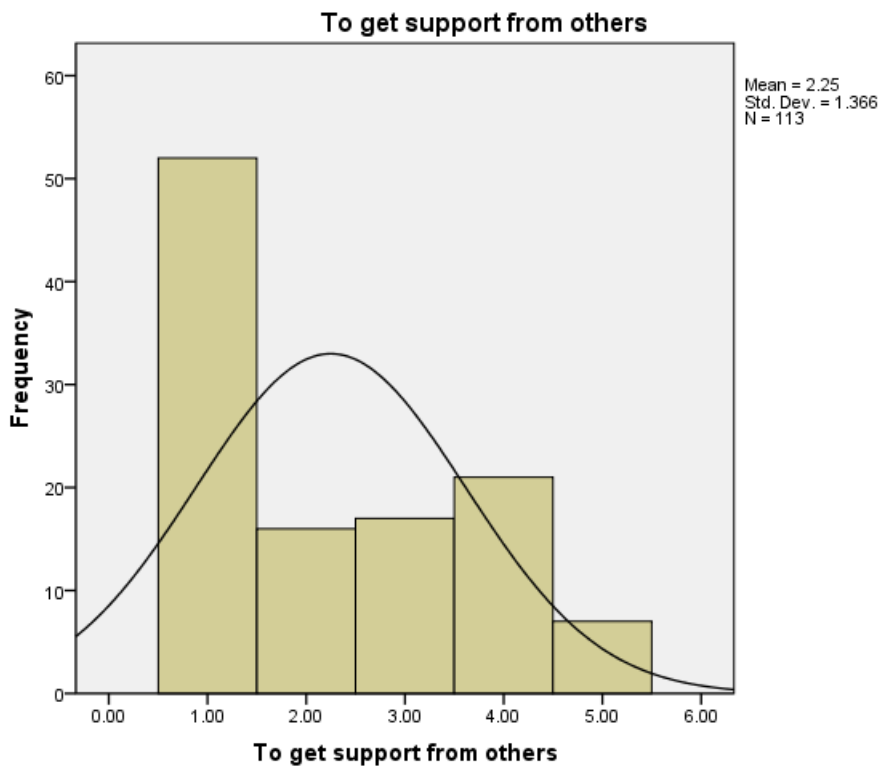
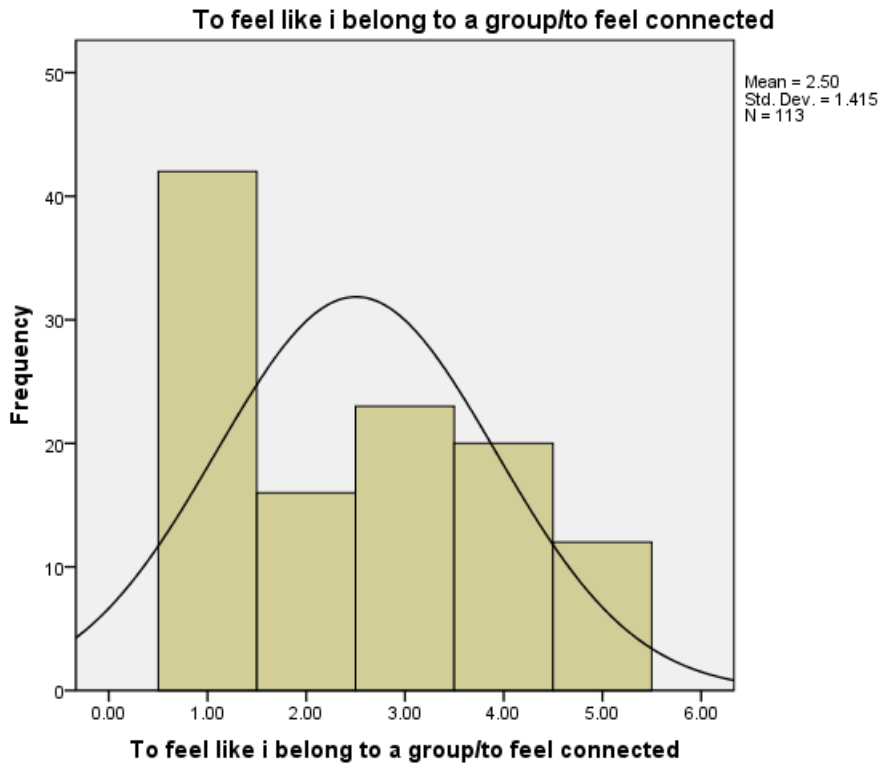
Statistical evidence of normality of distributions and equality of variances

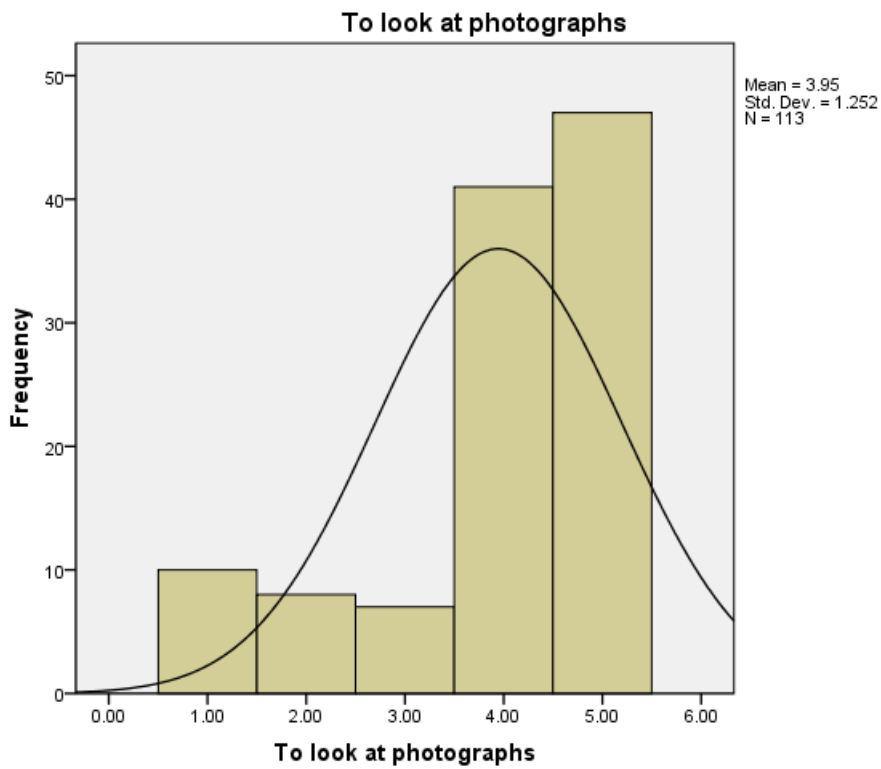
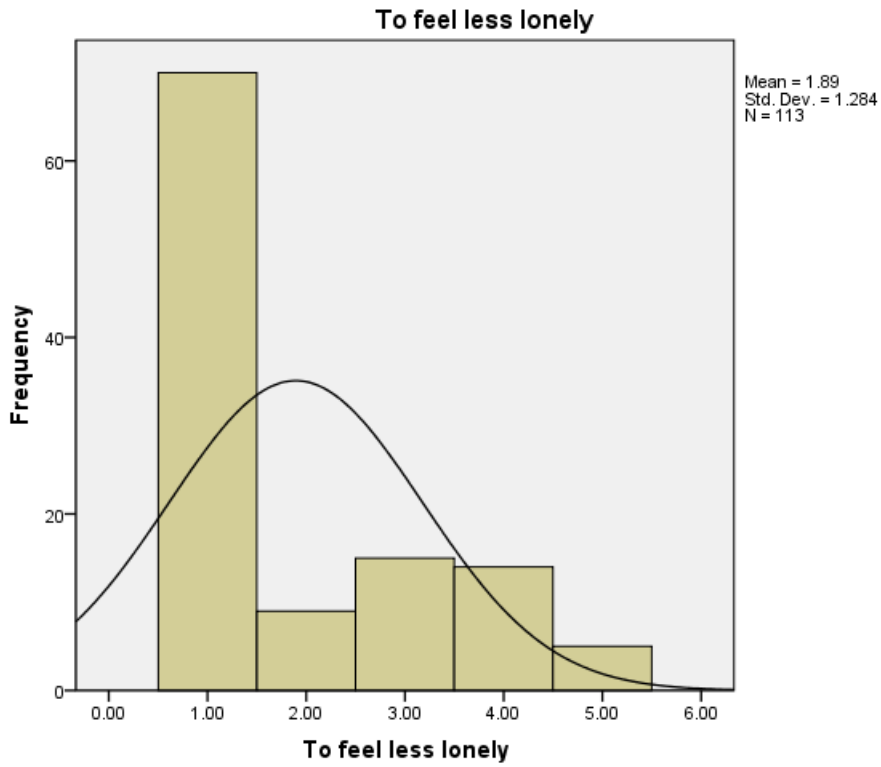
Section A: Normality of distributions

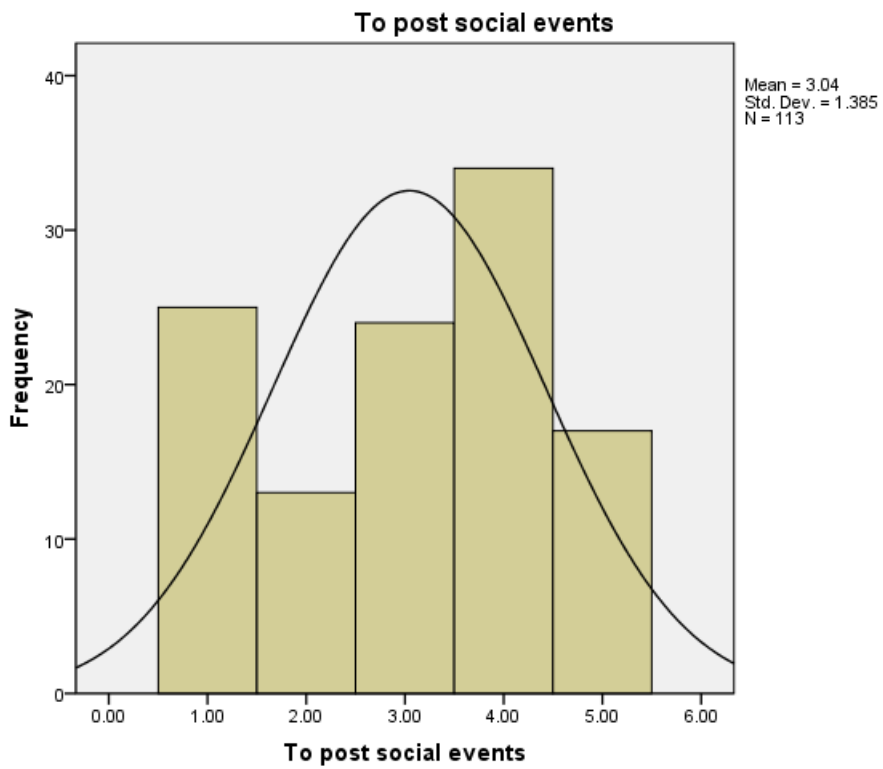
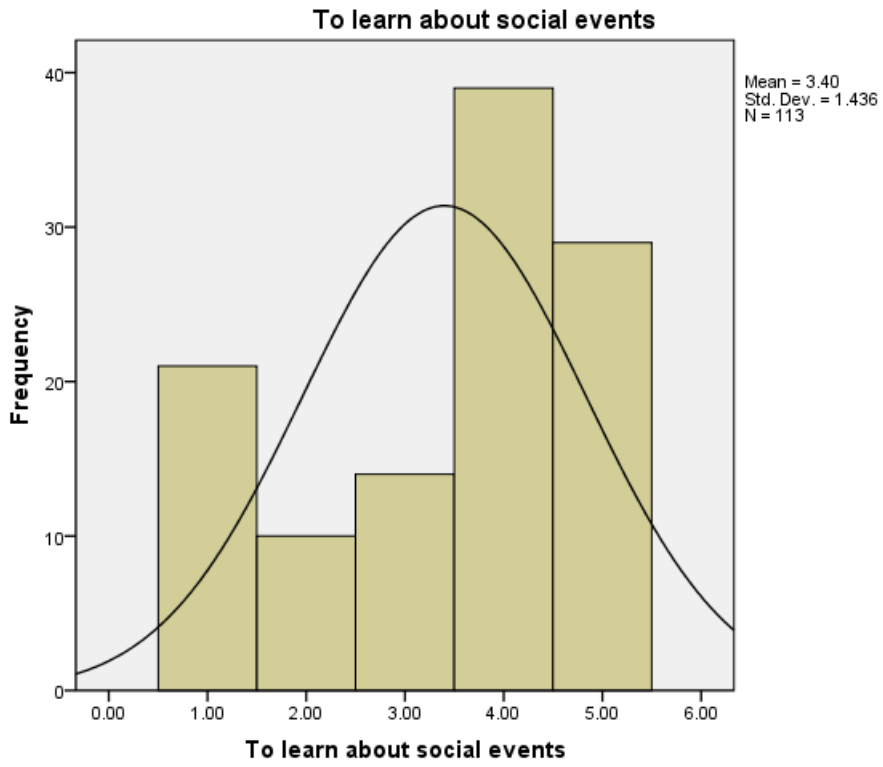
The following histograms depict the distribution on some of the attributes. Furthermore, a curve was used to illustrate the normality of the distribution.





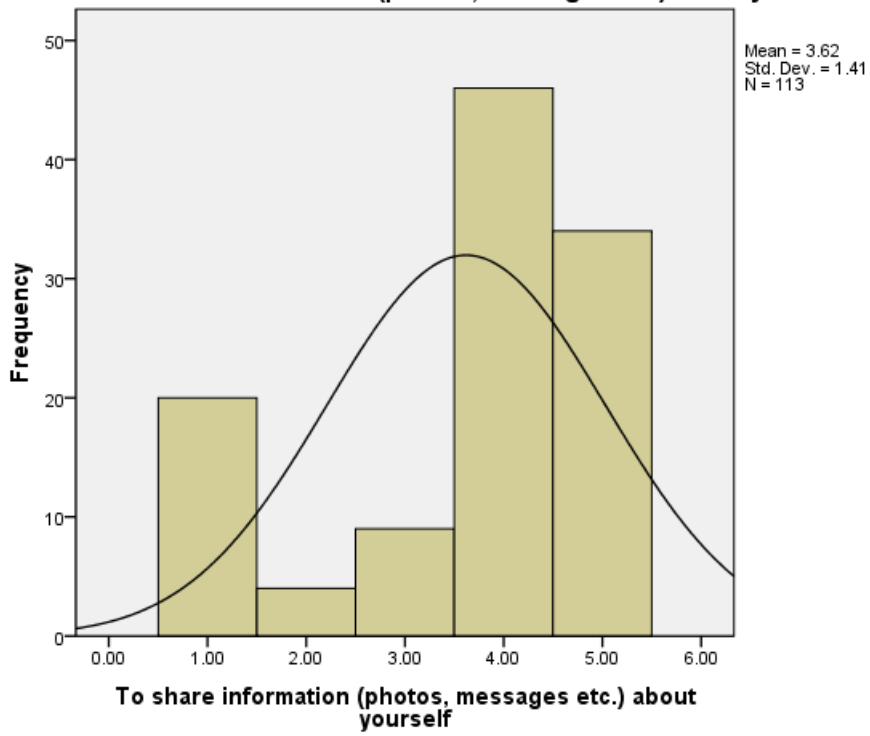




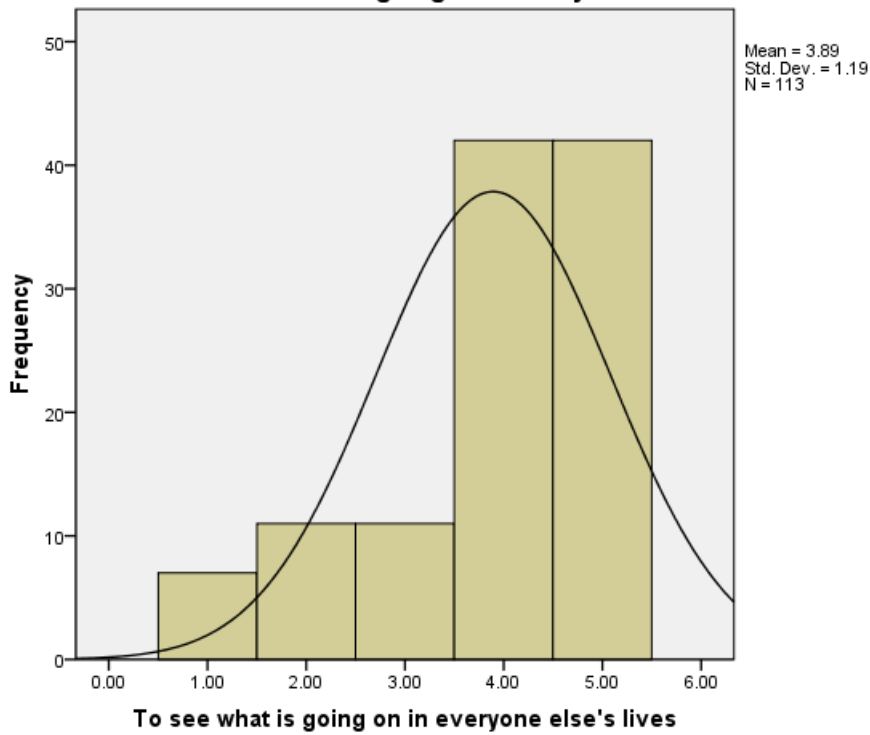


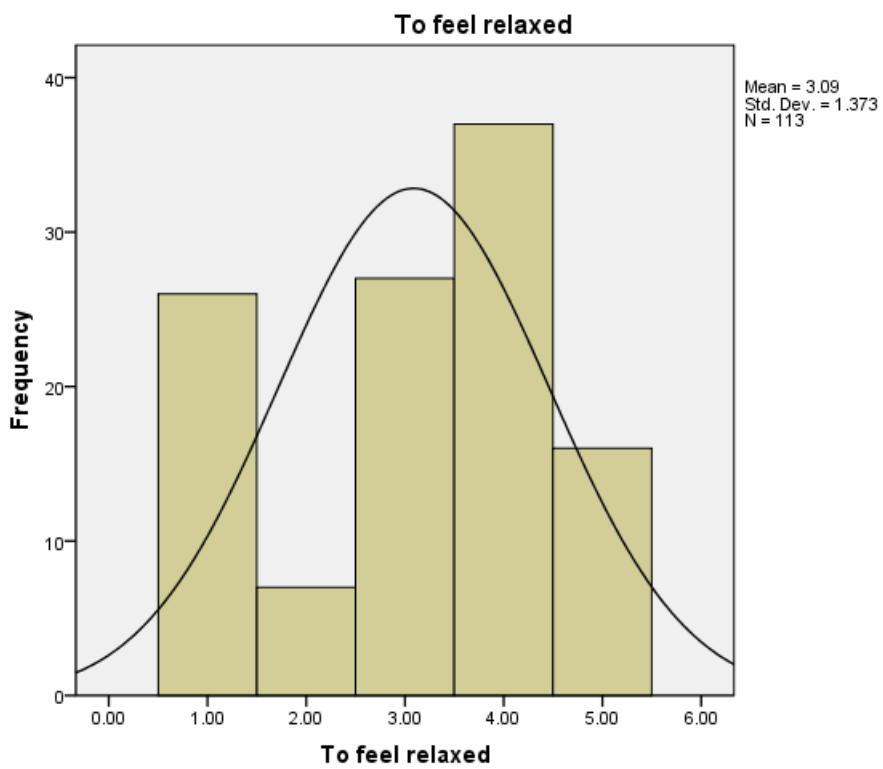
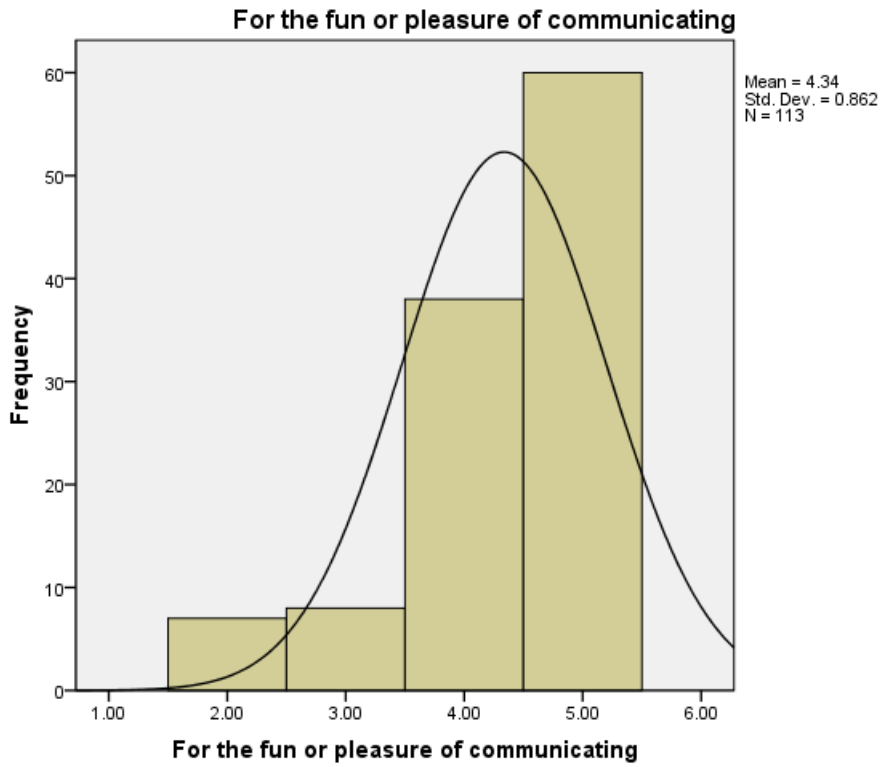


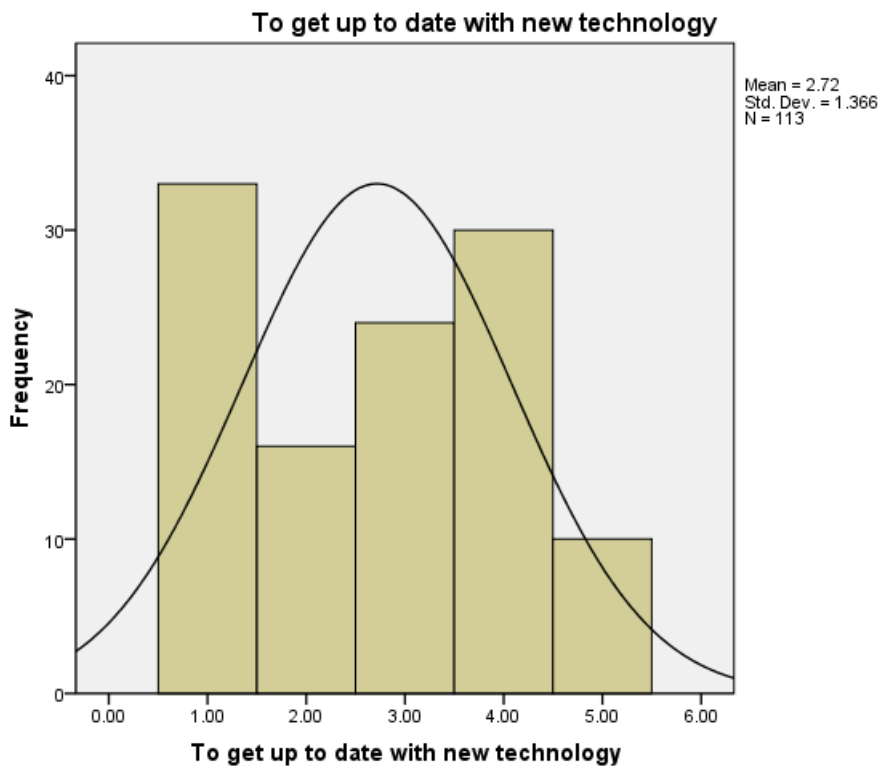
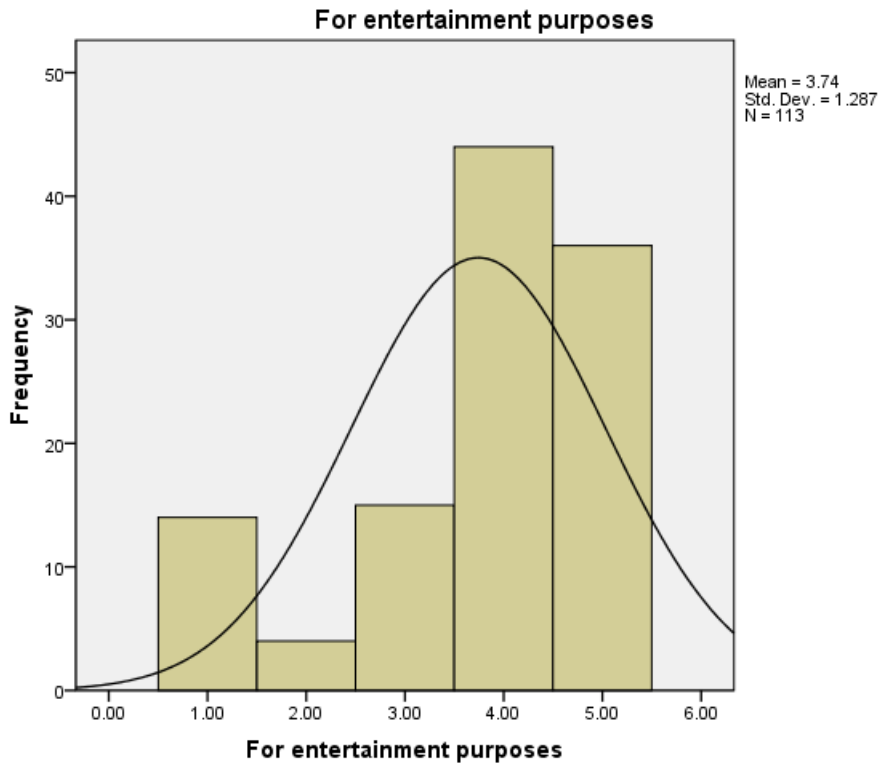
To share information (photos, messages etc.) about yourself

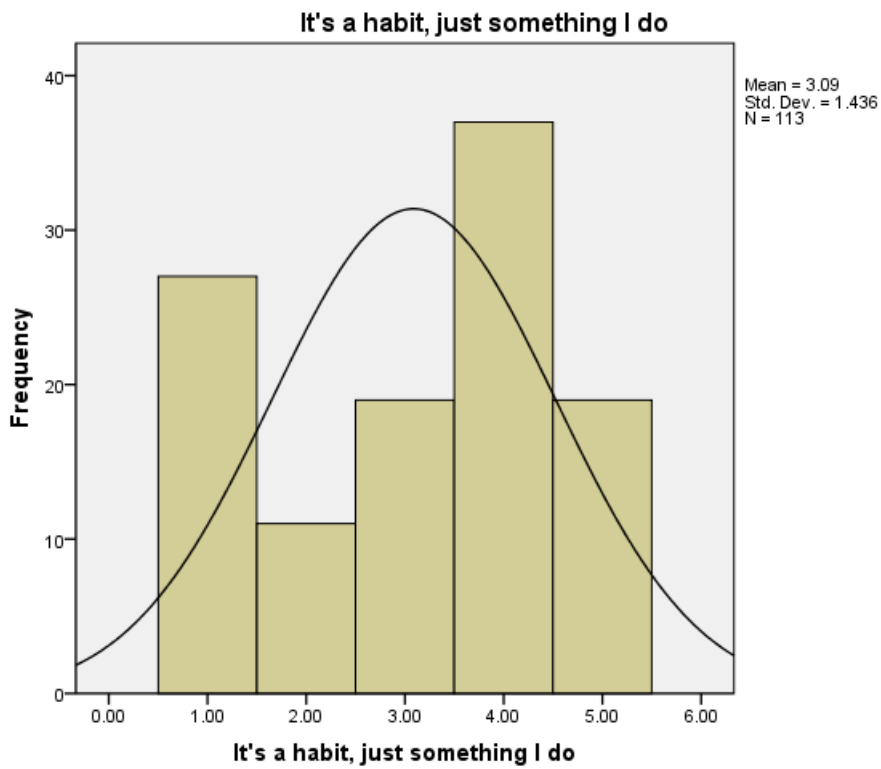
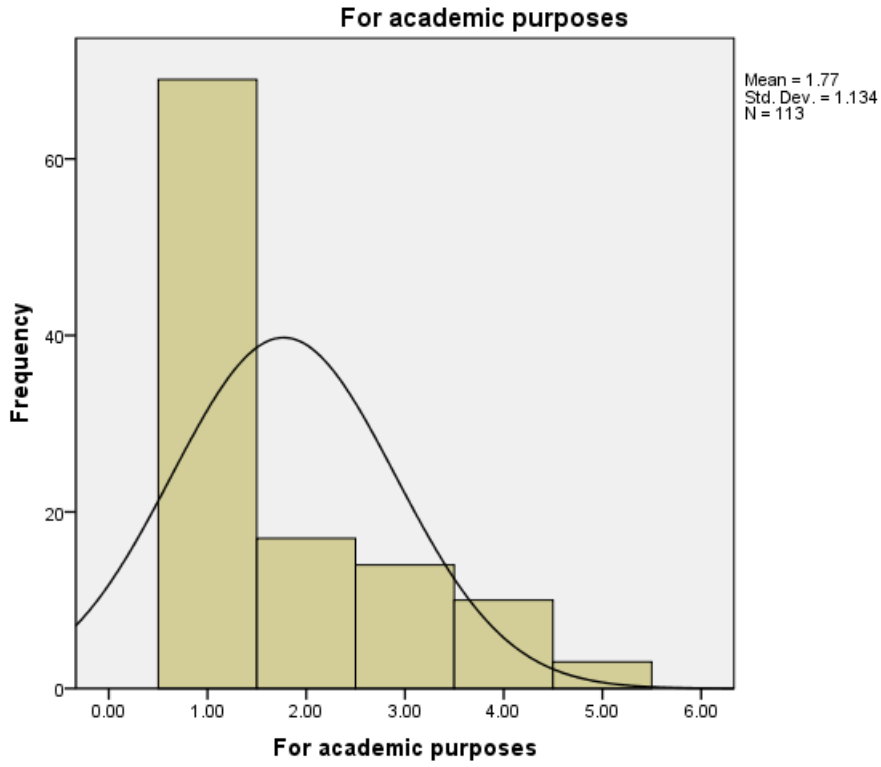


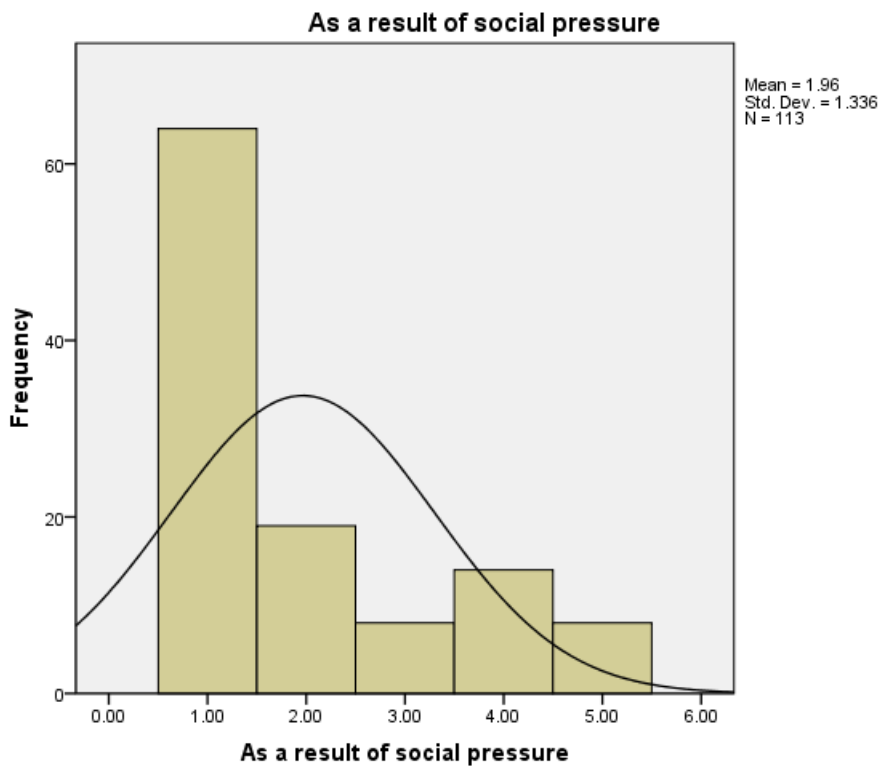
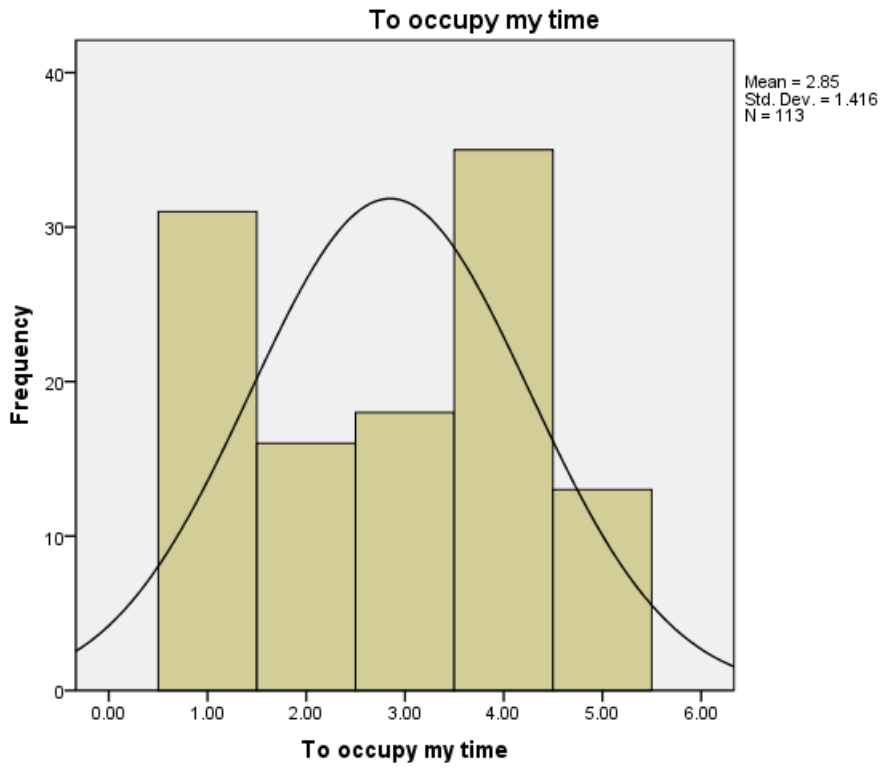
To see what is going on in everyone else's lives

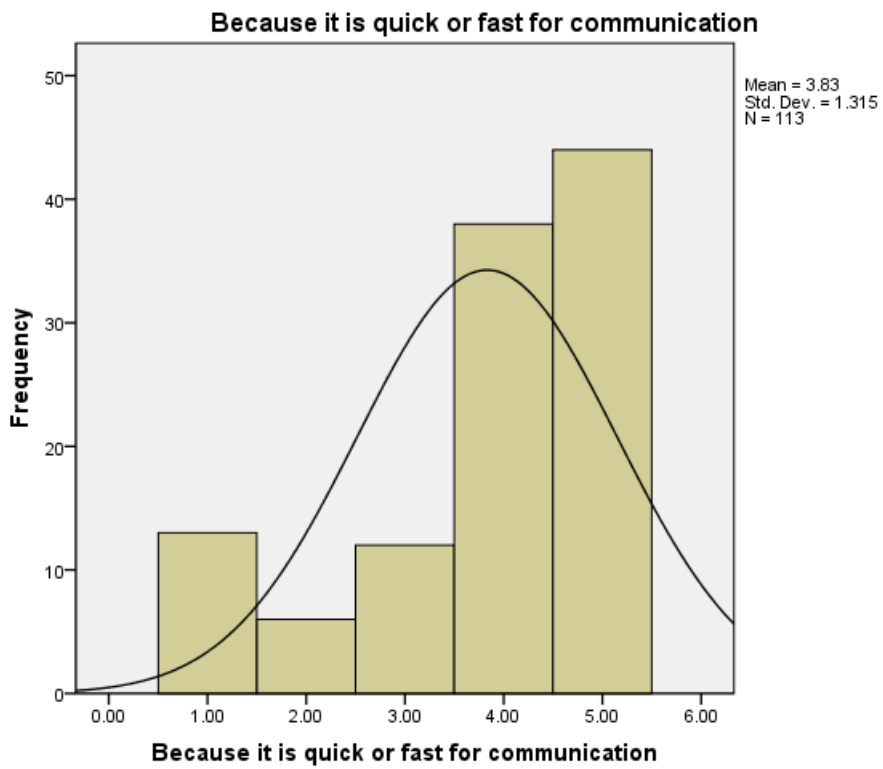
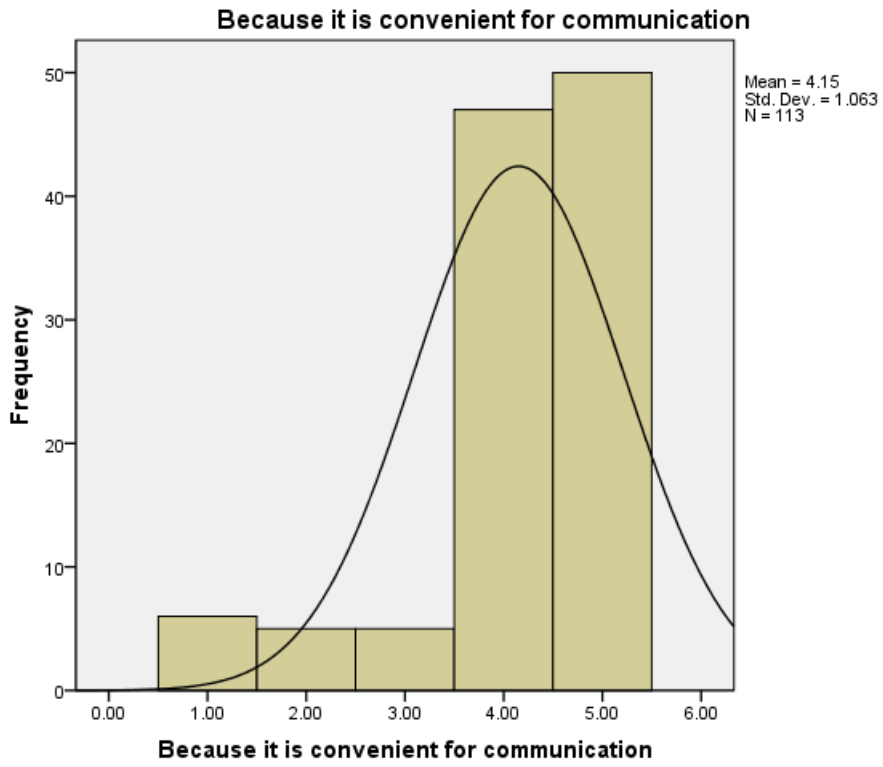


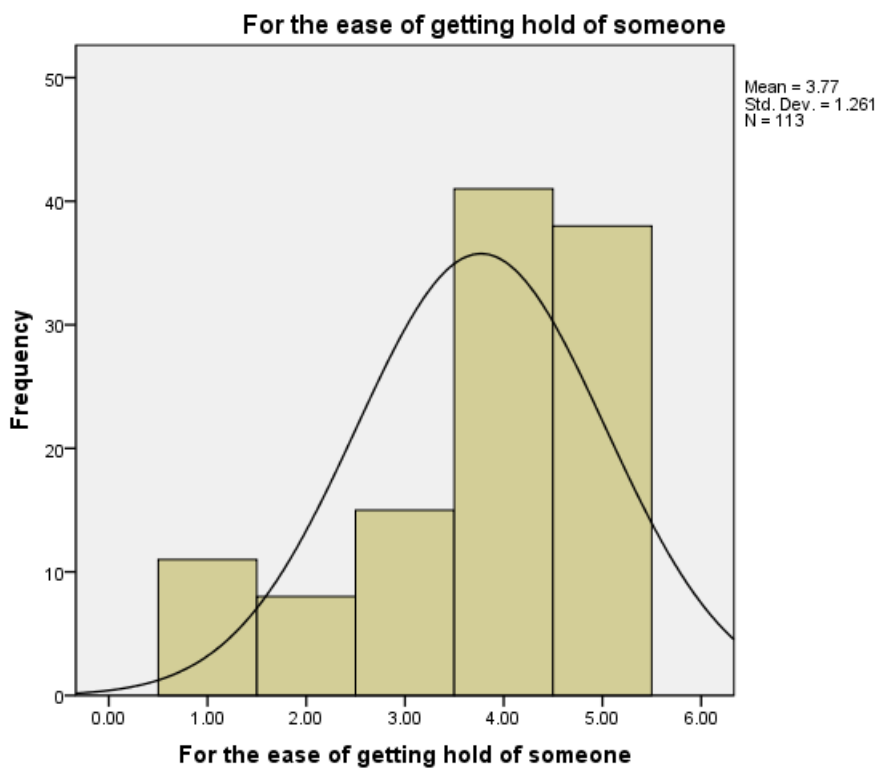
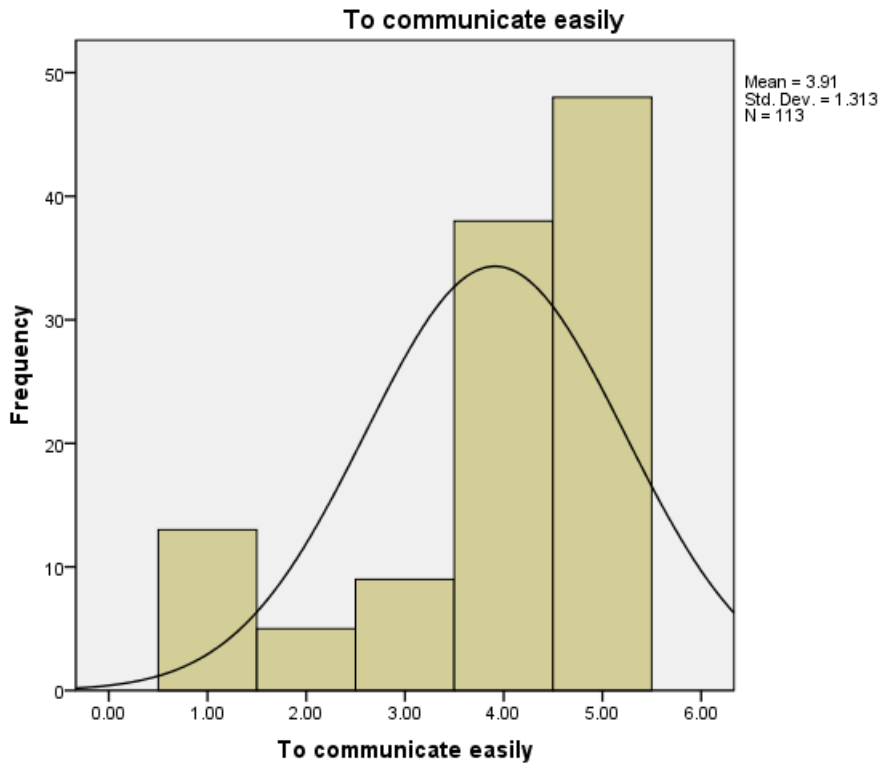






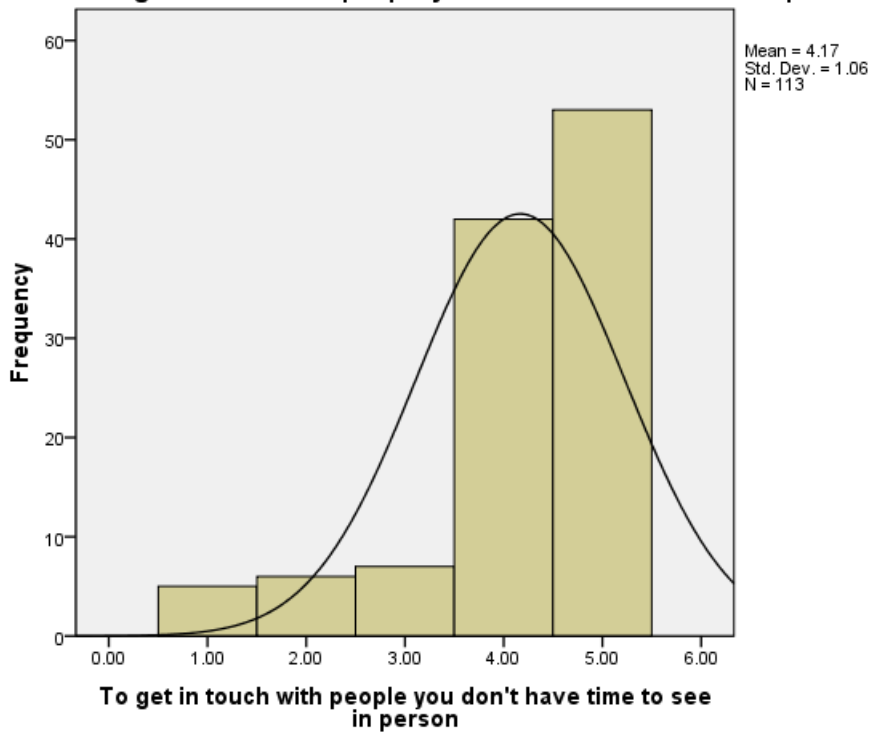




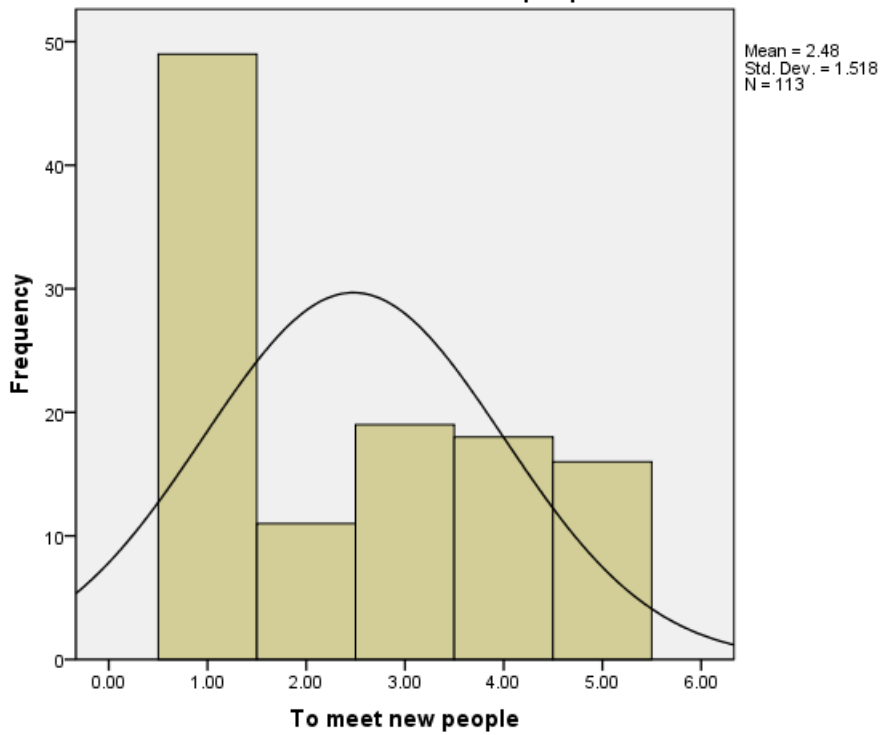


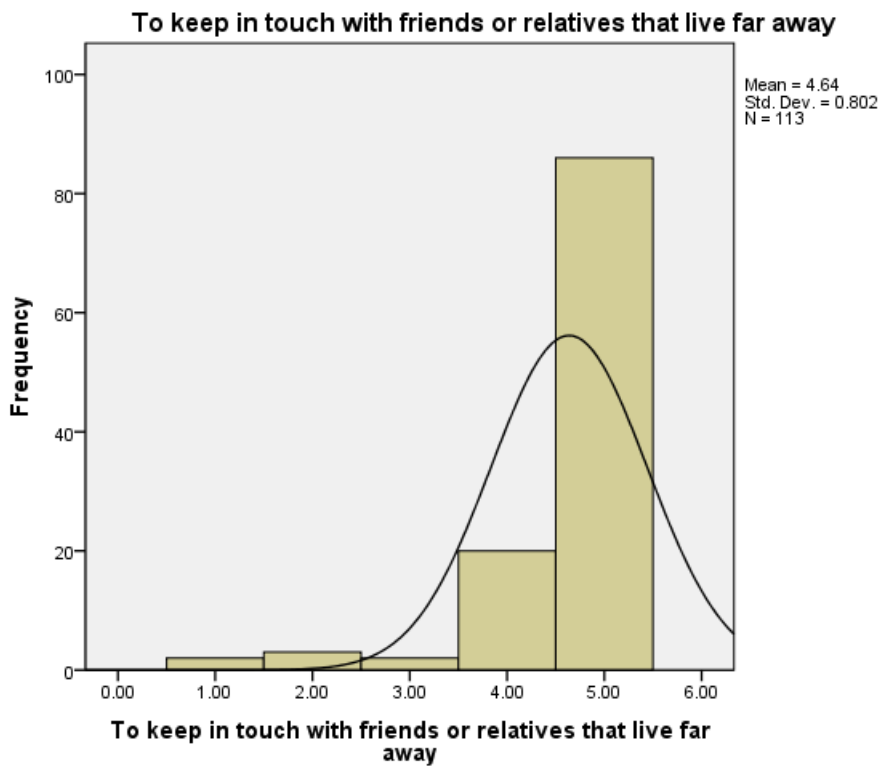
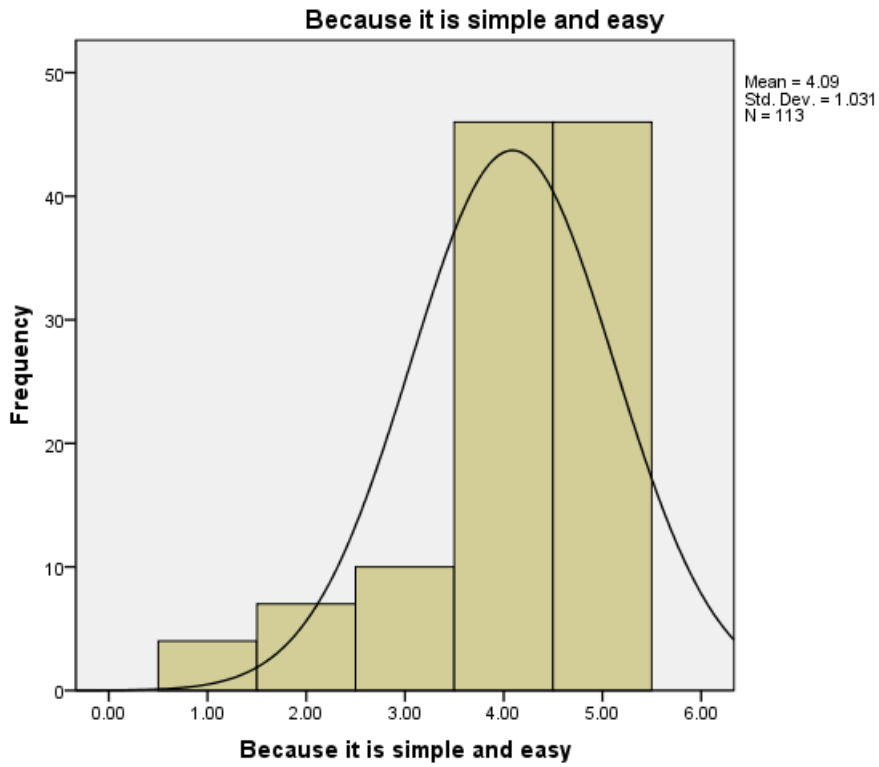


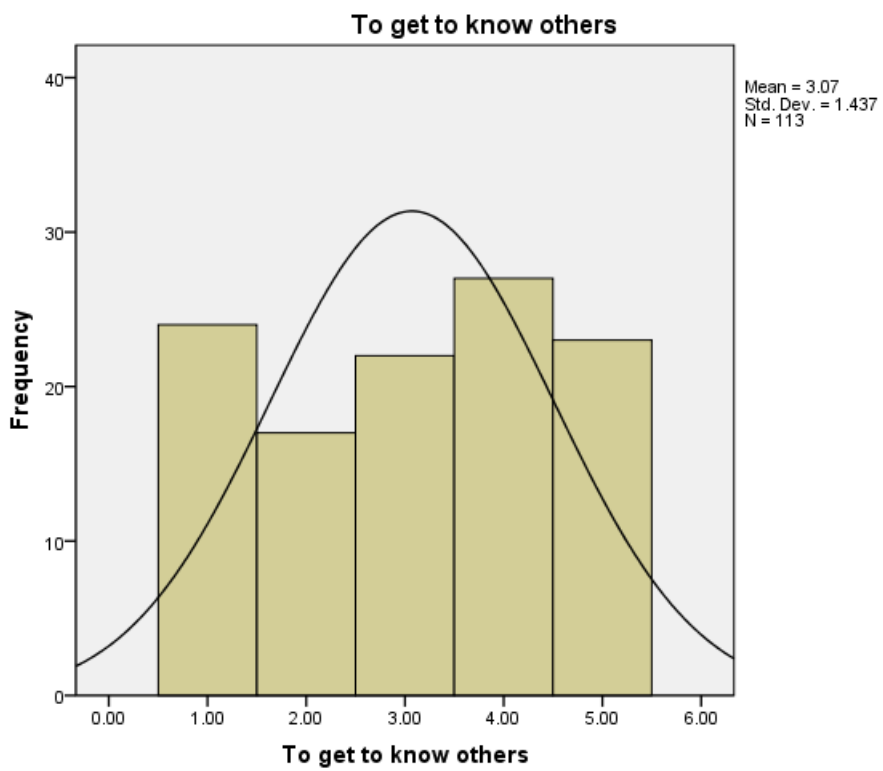
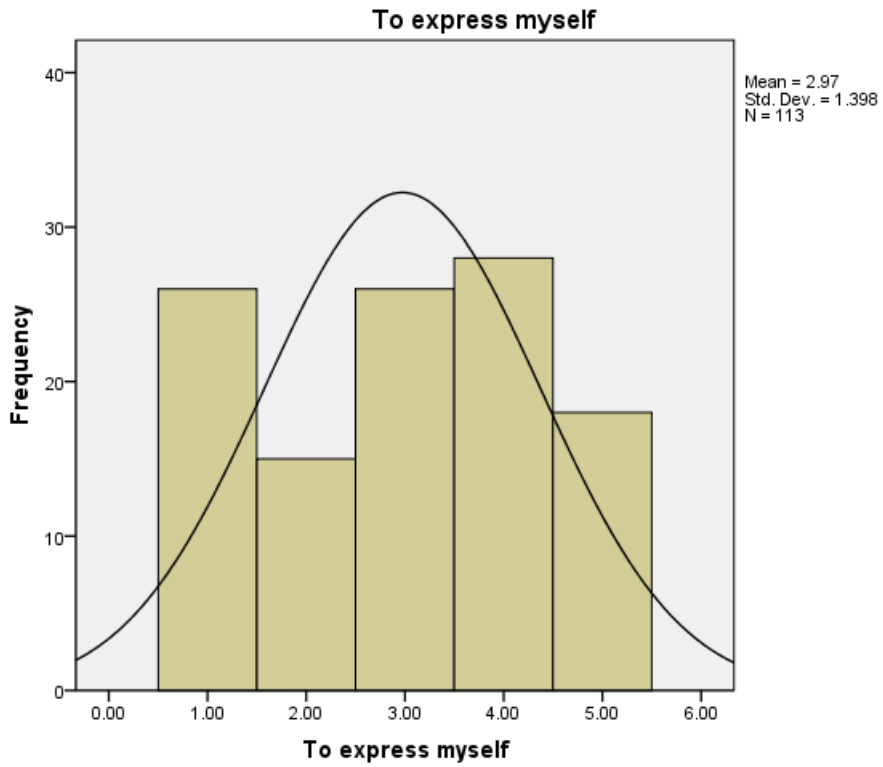
To get in touch with people you don't have time to see in person



To meet new people









Section B: Homogeneity of variance (Levene's test)

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Questionnaire number	Equal variances assumed	5.076	.026	1.252	109	.213
	Equal variances not assumed			1.289	109.668	.200
To develop a romantic relationship/dating purposes	Equal variances assumed	11.054	.001	2.016	109	.046
	Equal variances not assumed			1.906	77.958	.060
To keep in touch with old friends	Equal variances assumed	10.817	.001	2.028	109	.045
	Equal variances not assumed			2.189	105.380	.031
To keep in touch with current friends	Equal variances assumed	.475	.492	.491	109	.624
	Equal variances not assumed			.494	103.530	.622
To feel like i belong to a group/to feel connected	Equal variances assumed	.195	.659	.373	109	.710
	Equal variances not assumed			.373	100.919	.710
To get support from others	Equal variances assumed	.337	.563	1.131	109	.261
	Equal variances not assumed			1.130	101.342	.261
To feel less lonely	Equal variances assumed	7.742	.006	-1.324	109	.188
	Equal variances not assumed			-1.374	110.676	.172
To look at photographs	Equal variances assumed	.978	.325	-1.134	109	.259
	Equal variances not assumed			-1.117	95.550	.267
To learn about social events	Equal variances assumed	.282	.597	-.411	109	.682
	Equal variances not assumed			-.408	98.869	.684
To post social events	Equal variances assumed	3.693	.057	.257	109	.798
	Equal variances not assumed			.263	108.979	.793
To share information (photos, messages etc.) about yourself	Equal variances assumed	.202	.654	-1.044	109	.299
	Equal variances not assumed			-1.056	105.076	.294
To see what is going on in everyone else's lives	Equal variances assumed	2.250	.136	-2.607	109	.010
	Equal variances not assumed			-2.562	94.478	.012
For the fun or pleasure of communicating	Equal variances assumed	1.393	.240	-1.361	109	.176
	Equal variances not assumed			-1.316	87.285	.192
To feel relaxed	Equal variances assumed	.907	.343	-.865	109	.389
	Equal variances not assumed			-.856	97.340	.394
For entertainment purposes	Equal variances assumed	.152	.697	.785	109	.434
	Equal variances not assumed			.788	102.749	.433



To get up to date with new technology	Equal variances assumed	.043	.836	1.059	109	.292
	Equal variances not assumed			1.053	99.333	.295
For academic purposes	Equal variances assumed	.111	.739	.342	109	.733
	Equal variances not assumed			.346	105.590	.730
It's a habit, just something I do	Equal variances assumed	.016	.899	-.297	109	.767
	Equal variances not assumed			-.297	102.347	.767
To occupy my time	Equal variances assumed	.001	.982	-.238	109	.812
	Equal variances not assumed			-.239	102.277	.812
As a result of social pressure	Equal variances assumed	20.249	.000	-2.370	109	.020
	Equal variances not assumed			-2.519	109.484	.013
Because it is convenient for communication	Equal variances assumed	.002	.966	-.396	109	.693
	Equal variances not assumed			-.395	100.488	.693
Because it is quick or fast for communication	Equal variances assumed	.117	.733	-.278	109	.782
	Equal variances not assumed			-.275	97.767	.784
To communicate easily	Equal variances assumed	.405	.526	.036	109	.972
	Equal variances not assumed			.036	102.660	.971
For the ease of getting hold of someone	Equal variances assumed	.290	.592	-.294	109	.769
	Equal variances not assumed			-.292	98.644	.771
To get in touch with people you don't have time to see in person	Equal variances assumed	.134	.715	-.550	109	.584
	Equal variances not assumed			-.545	98.234	.587
To meet new people	Equal variances assumed	3.589	.061	.507	109	.613
	Equal variances not assumed			.496	92.432	.621
Because it is simple and easy	Equal variances assumed	.000	1.000	-.968	109	.335
	Equal variances not assumed			-.956	96.333	.342
To keep in touch with friends or relatives that live far away	Equal variances assumed	1.997	.160	-.849	109	.398
	Equal variances not assumed			-.823	88.406	.413
To express myself	Equal variances assumed	.452	.503	.037	109	.970
	Equal variances not assumed			.038	105.227	.970
To get to know others	Equal variances assumed	.137	.712	-.713	109	.477
	Equal variances not assumed			-.707	98.122	.481
Time spent on Facebook per week	Equal variances assumed	.003	.959	.023	109	.982
	Equal variances not assumed			.023	99.174	.982
I would rather be on Facebook than do anything else	Equal variances assumed	.543	.463	-.255	109	.800
	Equal variances not assumed			-.255	102.074	.799
I could easily do without using Facebook for several	Equal variances assumed	.531	.468	-.395	109	.694



days	Equal variances not assumed			-.394	100.390	.695
I would feel lost without Facebook	Equal variances assumed	.018	.895	-.715	109	.476
	Equal variances not assumed			-.711	99.143	.479
Whenever i'm unable to use Facebook, I really miss it	Equal variances assumed	.036	.849	.302	109	.763
	Equal variances not assumed			.302	101.290	.763
Going on Facebook is one of the more important things I do each day	Equal variances assumed	.976	.325	-.473	109	.637
	Equal variances not assumed			-.478	105.133	.634
Your overall interpersonal contact has	Equal variances assumed	.214	.645	1.944	109	.054
	Equal variances not assumed			1.939	100.468	.055
Communicating face-to-face with your friends has	Equal variances assumed	.029	.866	-.251	109	.803
	Equal variances not assumed			-.249	99.048	.804
Communicating face-to-face with your family has	Equal variances assumed	.379	.539	.417	109	.678
	Equal variances not assumed			.415	99.585	.679