Does addiction to Facebook have an impact on identity?

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**ABSTRACT**

This research study looks at how addiction to Facebook impacts identity. Facebook is the currently the largest social network, boasting over one billion monthly active users. Previous research into the effects Facebook has on an individual has been conducted since the launch of Facebook in 2004, including research on how the use of Facebook impacts on identity, although research is limited.

This research study examines the notion of Facebook addiction, and evaluates whether it has an impact on identity. The research was conducted with 32 participants, who were all undergraduate students at a university in the midlands and all between the ages of 18 and 26. The participants were invited to fill out a self-completion questionnaire, asking a variety of questions relating to their use of Facebook and their profiles on the site.

Within the questionnaire the Bergen Facebook Addiction Scale (BFAS) was used to determine whether participants were addicted to Facebook using their criterion. The outcomes were that there is a link between Facebook use and the impact it has on identity, however, further research is needed to see whether Facebook as a whole or Facebook addiction cause this impact.
1: INTRODUCTION

Every day, new ways to connect and communicate with friends and family emerge. With the introduction of social networks, we are provided with a portal to a wealth of information, twenty four hour communication and free entertainment. At first sight, this sounds like an ideal world, everything you need at the click of a button, however, could this new technology be creating a generation of children and young people who can’t comprehend physical emotion?

Looking specifically at social networking, Facebook exploded into the public domain in 2006 and is currently the largest social network, boasting over one billion monthly active users (Facebook, 2012), with 67% of those who have internet access visiting a social networking site daily (Ofcom, 2012). Facebook’s facilities include twenty four seven; communication, gaming, entertainment and picture sharing, all free of charge. With all of this on offer, on one site at the click of a button, it can be assumed that it can be easy to spend hours on the site, navigating your way through masses of information.

This research study examines whether Facebook addiction has an impact on identity. It seeks to see if Facebook is creating a generation of narcissistic youths, or whether it is simply a hub of online intelligence, useful for communicating with friends and family and creating your own identity in the online world.
Research in this area is limited as Facebook only became available in the public domain in 2006, however, membership is booming, and as new ways to connect with family, friends and other users within the virtual world are emerging, issues such as addiction are being becoming increasingly apparent. The worrying thought, is that with the emergence of the virtual revolution, the new generation labelled ‘Generation Z’ (Beddington, 2013) will no longer be able to cope without the internet.

Several theorists look at Facebook addiction, how it has emerged and ways to prevent it and there are also theorists who look at what impact Facebook has on an individual’s identity, however, limited research has been conducted to correlate the two concepts. It is important to understand why Facebook has this impact on people and compels individuals to spend hours on the site per day, especially considering different technologies are being discovered every day, the assumption could be that this obsession with the virtual world will increase to the point that young people simply do not know what to do without it.

The findings from this research study suggest that there is a correlation between Facebook addiction and identity. It suggests that Facebook encourages narcissism, as users want to showcase themselves in an ideal light which is favourable to others.
This research study starts with a detailed literature review, looking at the research that has been conducted by others into this topic area, and then the methodology for this small scale research project will be discussed, encompassing ethical considerations. The data findings will then be discussed in themes relating to the research question, finally drawing a conclusion as to whether Facebook addiction has an impact on identity.
2. LITERATURE REVIEW

2.1 INTRODUCTION

The internet has become an essential component to the navigation of everyday life (Amichai-Hamburger & Vinitzky, 2010). The internet is home to a wealth of information, live entertainment and acts as a portal to communicating with friends, family and the virtual world. With technology booming, the world is being virtually revolutionised each day, with new communication technology emerging to make it easier to connect with others around the world.

Currently in the United Kingdom, on average 85% of the population have constant access to the internet, with 99% of young adults having ever accessed the internet (Office for National Statistics, 2012). One major use of the internet is through social networks. A social network can be defined as an internet service that allows individuals to construct a profile and communicate online with other users from around the world (Ellison, 2007).

When looking at the use of social networking sites in the United Kingdom at present, a report issued by the Office for Communications (Ofcom), shows that at least 67% of those with access to the internet, access a social network at least once per day, an increase of 37% from 2007. This shows that the use of social networks is rapidly increasing and Ofcom predict that by 2016 at least 89% of internet users will be accessing social networks daily (Ofcom, 2012).
There are several, widely used social networks at present, however Facebook is the largest, boasting at least one billion monthly active users as of 2012 (Facebook, 2012). Other social networks include Twitter, MySpace, LinkedIn and Instagram, all with significantly less users, although the users of their sites are forever increasing with people having accounts on several different social networks.

As already mentioned, Facebook is the largest and most popular social network. Membership levels for the site have already broken records and the site is forever seeking new members. The site has also developed a market for professionals and businesses to create profiles promoting their work, broadening their facilities to accommodate everyone. With this in mind, this research study will focus on Facebook and seeking to see if addiction to the site has an impact on identity.

2.2 FACEBOOK HISTORY

Facebook was founded in 2004 by a Harvard University student, Mark Zuckerberg and his college roommates. Originally, Facebook was a site designed to network students only from Harvard University but in September 2006, Zuckerberg decided to make the site accessible to the public domain, meaning anyone with access to the internet can sign up (Facebook, 2012). Users were asked to register, and create an online personal profile for themselves, all free of charge. The users would then be able to begin connecting with friends via the sites built in search engine. When the user finds a friend they are able to ‘add’
them, and the other user has to option to accept or decline their invitations to become online friends (Facebook, 2010).

Currently, there is an age restriction in place stating that the minimum age to sign up to the site is thirteen years old. Facebook state that their reasoning behind this is to protect the young people from any inappropriate material that is posted on the site, although they do say that they aim to ensure that any inappropriate material is removed immediately. They also believe that putting this age restriction in place, it seeks to avoid the potential danger of the child being befriended by a paedophile (Facebook, 2012). However, a study by Facebook in 2012, revealed that there are at least 8 million profiles set up for under thirteen year olds (Facebook, 2012). Facebook argue however, that they cannot put any more features in place to prohibit the use of the site by under thirteen year olds and feel that the precautions they are taking are adequate (Facebook, 2012).

Facebook’s mission is to make the world a more open and connected place, it aims to allow users to network with their friends and family, keep up with what is going on in the world around them and share and express what matters to them as an individual (Facebook, 2012). Facebook boasts a hub of online applications, designed to entertain the user. These applications range from being able to connect to friends and family twenty four hours a day; to live gaming, sharing photographs and keeping up with the latest news.
2.3 USING FACEBOOK

When Facebook was made publically accessible worldwide, so that anyone able to access the internet is able to sign up, membership boomed. The site had one million users in September 2006 when the site was first made public. Within three months, membership had reached twelve million users and this figure is forever increasing. It currently stands at just over one billion monthly active users, which means that each user has accessed the site at least once within the last thirty days (Facebook, 2012).

When looking at how much time is being spent on Facebook, a recent Initial Public Offering (IPO) conducted by Facebook, looked at how much time users spend on Facebook. The report found that on average, Facebook users are connected onto the site for approximately 10.5 billion minutes per day, which equates to approximately 19,963 years. This would mean that every Facebook user in the world would be using Facebook for an average of twelve minutes per day (Facebook, 2012). However, further analysis by Facebook, suggests that the average time spent on Facebook per user, per day is 23 minutes (Facebook, 2013).

However, looking at these statistics some users may seldom use the site, meaning other are using it for longer periods each day. A study by Kroitis (2010) that was reported on in a BBC 2 documentary called ‘The virtual revolution: Homo Interneticus’ showed that in South Korea, some 16-24 year olds are using Facebook for anything up to eight hours per day to connect with friends and use
Facebook’s online gaming facilities. Looking at this study, it could mean that as a nation we are becoming dependant on social networks to aid us in everyday life.

When looking at how Facebook is accessed, it terms of the devices used to log on, the use of mobile phones is increasing. Currently, 63% of Facebook users, access Facebook via an application on their smart phones. Facebook introduced this application in 2008, and it allows users to access Facebook at once click of a button. Facebook predict that by 2014, at least 80% of their users will be accessing the site via a mobile phone (Facebook, 2013). Facebook statistics also show that the majority of their users (94%) log on via a laptop computer as opposed to a desktop computer, tablet or other technological device (Facebook, 2012).

2.4 COMMUNICATION

The opportunity to form and maintain relationships on the internet, via social networks have multiplied over the past few years (Valkenburg & Peter, 2007). Facebook is now a primary way of communicating with friends and family, without the need for face to face engagement. It can be a useful, social way to connect with old acquaintances and keep up with distant friends (Valkenburg & Peter, 2007). Facebook allows users to interact and connect with their friends and families constantly and can be seen as a particularly useful tool for students living away from home.
Facebook is free of charge for all users, meaning that using the site is a great way of free communication with friends and family. British Telecom (BT) is one of the leading communication businesses in the country, providing telephone communication, internet and many other facilities. In recent years, the landline telephone has almost become a redundant form of communication since mobile phones and the internet stormed the market. BT have had a loss on 34,000 landline customers a year on average, and put this down to the rise of the virtual revolution (BT, 2012). BT now provide broadband internet to almost a third of households in the United Kingdom, this could suggest that online communication is increasing and it could be the only form of communication possible in years to come (BT, 2012).

Kraut et al (2002) believed that by using the internet as your main form of communication, it substituted weak friendship ties for stronger ones, meaning that their relationships are stronger due to the ability to communicate so effectively and with ease. It could be argued that the ability to communicate so freely, would allow people to communicate more often, but it could be seen as a hindrance when making friends in reality. Baroness Susan Greenfield believes, that we are in an ‘existential crisis’ where people do not know how to communicate and make friends, other than online, she believes that by doing this, it could create a society of ‘Autistic young people’ who lack a sense of empathy in real life situations(Greenfield, S. Interview. 14th February 2013). For full transcript of the interview with Susan Greenfield, see Appendix D.
2.5 FRIENDSHIPS

Mintel (2011) conducted a study with 1,597 internet users aged sixteen plus to determine what they used social networks for. It showed that users predominantly used social networks to keep in touch with current friends (78%) whilst 55% used social networking to reconnect with old friends and 21% use social networks to make new friends. As the majority of the participants said that they used social networks to keep in touch with current friends, this could suggest that they are communicating with their friends online rather than face to face.

Some argue that by communicating with friends online, it could mean that the user desires to maintain some distance between themselves and other people. One study by Carpenter et al (2011) looked at whether social networks provide valuable social connections or distract individuals from more rewarding real-life relationships. They conducted a study of 194 undergraduate psychology students. They reported that they used Facebook for between five minutes and four hours per day and their mean number of Facebook friends was 517.

The study looked at whether the personality traits of the individual, correlates with their Facebook usage. The online survey looked at what young people are using Facebook for, and linked this to the following personality traits; extraversion, openness to experience, perspective defensiveness and mind-reading motivation. It looked at using Facebook as a romantic tool, Facebook-
only relationships and Facebook as a real-life supplement, meaning to use Facebook to schedule or to find out about real life social interactions.

Looking primarily at the results of Facebook-only relationships, it showed that this correlates with perspective defensiveness and suggests that a person may enjoy communicating with someone who shares a common interest. It also suggests that a person can be who they want to be with this other person as there is minimal chance of a physical meeting. This view is also shared by Baroness Susan Greenfield, she believes that we all become ‘slightly Autistic’ when communicating online. She believes that we are finding it increasingly easier to communicate online; hidden behind a screen, and that real life, face to face communication is becoming more difficult. She also looks at how this lack of face to face contact is creating a generation of narcissistic youths (Greenfield, S. 14th February 2013. Interview).

2.6 IDENTITY AND NARCISSISM

When using an online profile, there is no way of confirming that you are who you are saying you are (Greenfield, 2008). There has been research into the use of social networking sites and narcissism, but research is limited. Narcissism is where an individual is described as being extremely obsessed with issues of personal adequacy and prestige (American Psychiatric Association, 1994). When a person creates an online profile, they can portray themselves as they desire to be seen by others and have a sense of anonymity. Facebook therefore could open a gateway for self-promotion and vanity. A user could upload a picture of
themselves that has been heavily edited to portray an ideal image of themself, rather than an accurate self-portrait.

A study by Mehdizadeh (2010) looked at the correlation of narcissistic traits and social networking use, it suggested that people scoring high on narcissism, tend to be more active on social networking sites as they provide the user an opportunity to present themselves in a favourable way (Mehdizadeh, 2010). It has also been suggested that extroverts can use social networking sites for social enhancement and see it as a way to climb the popularity ladder, whereas introverts tend to use social media for social compensation and are encouraged to portray themselves in a more desirable way (Kuss & Griffiths, 2011).

One facility available on Facebook is the ability to upload pictures and share them with friends. In theory, seeing a photograph of someone should reflect their identity, however, in reality, this photo could be edited using a photo editing suite and could portray an individual in a different light (Greenfield, 2008). Editing photographs can be seen as narcissistic, as people do not want themselves to be portrayed as anything less than perfect, so hide all of their imperfections by editing them out (Carpenter et al, 2011).

Baroness Susan Greenfield argues that by connecting with friends and family online as a primary source of contact, the virtual revolution are creating a generation of people, who do not have any physical awareness of emotion. She argues that if people do not learn how to communicate face to face, they will
never understand body language, such as when to back away from a conversation or to notice when what you are saying is upsetting someone. She also argues that physical forms of affection, such as a hug, will become redundant as people are forming new ways of expressing emotion online (Greenfield, S. 14th February 2013. Interview).

It could also be argued that identity is derived by your notoriety on Facebook, and that the more Facebook friends you accumulate, the more popular you are (Greenfield, 2008). This is also argued by Tong et al (2008) who argued that individuals rate others on their social attractiveness and general positivity depending on how many Facebook friends they have, suggesting that the more Facebook friends you have, the more attractive and appealing you may seem to others.

A report has recently been published by John Beddington, the head of the government office for science. The report is titled ‘Future Identities’. It looks at factors that are influencing the identities of the current population in the United Kingdom, and looks at how identities may change further over the next ten years. The report looked at the emergence of hyper-connectivity, looking at how people are constantly connected to the online world.

The report also looks at the creation of ‘Generation Z’. They define this new generation as those born in the 1990’s and who are immersed from an early age in a digital environment and are competent with new technologies (Beddington,
The report also looks at the proliferation of communication technologies and refers to this as a new emerging ‘poly-media’ environment. The report scrutinises online ‘avatars’ suggesting that it encourages individuals to play out the life of someone who they wish to be. An avatar is an online character representing the user, used mainly for online gaming (Cohen et al, 2000). The report suggests that although avatars can diminish ‘real’ identity, it suggests that it does not produce a new identity, just encourages users to shift between identities (Beddington, 2013).

The report has highlighted the observation that they feel is most significant which is that some individuals feel that they have only achieved their ‘real and true’ identities for the first time online. The report focuses on a case study of a young male who has a rare and terminal disability, the case study looks at how creating a ‘normal’ online avatar gives him a sense of normality and allows him to act out his life as a ‘normal’ young person would. One criticism the report makes towards avatars, is this sense of a new found identity, can correlate with excessive use of online social media, and often, this excessive game playing, and release of identity can lead to an addiction to these virtual worlds (Beddington, 2013).

2.7 INTERNET ADDICTION

Over the past few years, the concept of internet addiction has been accepted as a legitimate clinical disorder that can often result in the administration of medication (Young, 2007). In May 2013, a new volume of the Diagnostic and
The statistical manual of mental disorders (DSM) will be published. The DSM is the diagnostic tool for all medical professionals seeking a diagnosis, and is strictly adhered to in the United Kingdom. The latest volume, the DSM-V, will introduce internet addiction disorder amongst other mental health conditions, such as drug addiction and gambling addiction in the new volume (American Psychological Association, 2013).

With internet addiction being added to the DSM-V it can be assumed that internet addiction is an increasing problem in the current population. When looking at why the internet can become so addictive, Brenner (1996) argues that as the internet provides a ‘user friendly interface’ and a convenient platform for communicating with friends and family, users have become ‘cybernetically’ involved with this internet, thus triggering internet addiction. He also stated that college and university students are more vulnerable to internet addiction because as a group, they have a strong drive to develop a sense of identity.

This research also suggests that as the internet provides such a vast amount of information from many different avenues such as entertainment, world news, music and socialising, it is easy for individuals to be wrapped up in the wonders of the internet and the abilities it provides users with. Brenner (1996) suggests that the internet has everything the real world has, but from the comfort of your own home. Baroness Susan Greenfield also argues, that with the ability to do everything you need to do to get by in day to day life from a chair in your living room, it means that the population are being drawn to the internet and it’s
capabilities and using it not only for entertainment but to aid them in daily life too (Greenfield, S. Interview. 14\textsuperscript{th} February 2013).

### 2.8 FACEBOOK ADDICTION

When looking primarily at addiction to the social networking site Facebook, Andreassen (2012) developed the Bergen Facebook Addiction Scale (BFAS). The reason behind the development of the scale was because Andreassen felt that Facebook addiction was becoming an increasing problem (Andreassen, 2012). The scale is based on six elements of addiction which are: salience, mood modification, tolerance, withdrawal, conflict and relapse. The sample comprised of 423 psychology students, whose mean age was 22 years old.

The questionnaire consisted of likert scales, one for each of the six elements of addiction. The study also consisted of several other questionnaires, aiming to gauge what other personality traits each participant displayed. The researcher then linked these questionnaires with the BFAS to see if any particular personality traits positively correlated with Facebook addiction.

It seemed that extraverts used social networking more regularly as an additional way of expressing themselves. It also suggested that narcissistic traits were displayed by extraverts in terms of self-promotion via photographs, status updates and biography chapters. Overall, it seems the results of the BFAS show
that, the majority of participants were addicted to Facebook and Andreassen argued that this is worrying and further research is needed to find the trigger to this addiction (Andreassen, 2012).

Furthermore, a case study conducted by Tzavellas et al (2010) examined a 24 year old female, who claimed she was addicted to Facebook. The participant kept a diary of her social network use over the next eight months. Upon re-assessment, it seemed that the female was using Facebook for up to eight hours a day, a lot of the time she would not be playing a game or talking to anyone, she would be scrolling through other users updates and believed that she was staying in touch with the outside world. Although Tzavellas suggested further therapy and medication, the participant declined (Tzavellas et al, 2010). This study and the BFAS study suggest that Facebook addiction is increasingly becoming a problem for all Facebook users; it seems that as Facebook is a new platform of technology, users are drawn in by the constant connectivity and ability to access information constantly and free of charge.
3: METHODOLOGY

3.1 DATA COLLECTION TOOL

The data collection tool that will be used for this research study is a self-completion questionnaire (Appendix C), which is used widely in research into health, education and social sciences (Scott & Usher, 1999). The questionnaire will comprise of twenty five questions, using a mixture of open and closed questions and likert scales, which will gather both quantitative and qualitative data using a mixed methods approach within a positivist paradigm.

A paradigm frames a research topic and influences the way in which we think about the chosen topic (Hughes, 2001). The positivist paradigm is the acceptance of natural science as the basis of human knowledge (Cohen, Manion and Morrison, 2007). When using a positivist paradigm, the data gathered will generally be quantitative, statistical data (Mukherji and Albon, 2010). When all data is gathered, the majority of the results will provide quantitative, statistical data, therefore, the positivist paradigm is followed.

The questions will be clear and concise as research shows that the reliability of the answers decreases as the length of the questions increase (Bell, 2010). The questionnaire is also short in length to ensure that the participants remain fully engaged with the study throughout, to maintain validity and reliability of data. Another reason for using a questionnaire is that it is a quick, cost effective
method for gathering data (Beiske, 2002). This will allow time for thorough data analysis and vigorous interpretation of all data gathered.

The questionnaire aims to see how the participants are using Facebook. It looks at any narcissistic traits possessed by the participant to see if the use of Facebook has an impact on the participant’s identity. To determine whether the participant is addicted to Facebook, the original set of questions from the Bergen Facebook Addiction Scale (BFAS) (2011) were used in a likert format, and will be analysed using the BFAS criterion.

There are limitations to using a questionnaire as a data collection tool; one limitation that can be argued is the inadequacy to view the emotions and reactions of the participant (Popper, 2004). The participants will be filling out their questionnaire privately, so the researcher will be unable to judge any reactions to specific questions, the researcher will also be unable to gauge the truthfulness of the answers, which in effect, could reduce the reliability and validity of the data gathered (Laws, 2003).

When considering the data collection tool for this research study, many factors were assessed before deciding to use a questionnaire. To ensure the results of the research were valid, albeit it being a small scale study, a wide range of participants were needed to ensure that the data were valid, reliable and generalisable. Due to the limited time scale of the research study, a questionnaire seemed viable, compared with a focus group or one to one
interviews which involve time consuming transcribing, and would limit the amount of participants involved in the research study, making it more difficult to gain a fully representative sample of the population (Bell, 2004).

3.2 SAMPLE
The sample that will be used for this research study is a group of undergraduate students from a university in the midlands. The participants will all be between the ages of eighteen and twenty six. The reasons behind the choice of age range is that the average ages of Facebook users throughout 2012 was nineteen to twenty two years old (Facebook, 2012). In future studies, different age ranges could be considered, but ethical considerations and consent would need further consideration.

The participants have been invited to complete the research questionnaire via a message on the universities intranet, posted by one of their module leaders, inviting them to meet the researchers at an allocated time, outside of lectures, to avoid affecting their learning process.

3.3 SAMPLING TECHNIQUE
There are two sampling techniques that will be used for this small scale research study, the first is a volunteer sample. The researcher will invite a small group of students from a specific course to participate in the study, via a message posted on the universities’ intranet by their module leaders. As the participants have been invited to participate in a specified time outside of lectures, there is no
obligation to attend, so the researcher may find it difficult to obtain an ample sample.

If there are not enough participants gained via the volunteer sample, the researcher will then use a snowball sample, to ensure that an adequate amount of participants are gained for the research study. A snowball sample emerges through the reference from one participant to another (Denscombe, 2010). The aim is that the initial participants from the volunteer sample will signpost the researcher to other potential participants. The researcher will then repeat the process, ensuring that all participants fully consent to participating in the research study without any duress.

In line with the BERA code (2011) no incentives will be offered to participants for completion of the questionnaire. The BERA code states that the researcher must acknowledge that incentives may create some bias in response rates and answers. Alderson & Morrow (2011) argue that no persuasion of any kind should be put upon the participant. When thinking about this, incentives can be seen as coercive. To eradicate the feeling of being pressured to participate, and also avoid unreliable answers, an incentive will not be offered for this small scale research study.

3.4 CONTEXT
The participants are all students from a university in the midlands. The participants are all undergraduate students, reading a variety of courses at the
university. The initial research will be conducted at the university in a communal meeting room. The participants are encouraged to complete the questionnaire individually and can return the questionnaire to the meeting room once completed. The participants gained through the snowball sample will also complete the questionnaire at the university; again, they will be encouraged to complete this individually.

The reason why the participants will be encouraged to complete the questionnaire individually is to reduce the risk of bias and lack of reliability, as if they were to complete the questionnaire amongst peers, their results could be influenced, distorting the results (Bell, 2006).

3.5 ETHICAL CONSIDERATIONS
With the introduction of rigorous ethical guidelines, it encourages the engagement and participation of children and young people in research (Farrell, 2005 pp. 17-23). Research ethics is concerned with respecting participants throughout the project and ensuring that by following ethical guidelines, both the participant and the researcher are protected from any significant trauma or harm (Alderson and Morrow, 2011 pp. 1-3).

Before commencing the research study, ethical approval was granted from The University of Northampton (Appendix A). Throughout the study, both the University of Northampton’s ethical guidelines and The British Educational Research Association (BERA) Guidelines (2011) will be adhered to inclusively.
Firstly, to ensure that all participants fully consent to the research, Section 10 of the BERA code (2011) will be adhered to. Section 10 states that voluntary informed consent must be obtained to ensure that the participants both understand, and agree to participate in the research, and will not be pressurised into completing the research. The code states that voluntary informed consent must be obtained before the researcher undertakes any research concerning the participant.

To ensure that this is met, full consent will be gained from the participant in a comprehensive consent form detailing what the study entails, to ensure that the participants are fully informed about the research before commencing the study (Appendix B). The participants will know and understand what the research is for, how it will be used, and who will be able to access it before they complete the research questionnaire.

The nature of the subject being researched may raise sensitive issues for the participant, albeit the questions not being too in-depth or of a sensitive nature for the majority of participants. For this reason all participants will be given the right to withdraw from the study at any time and they will be informed that their data will no longer be used in the study. This is following Section 15 of the BERA code of ethics.
To ensure that the researcher can withdraw their data, each consent form and questionnaire will be numbered in pairs. If a participant wishes to withdraw, the researcher can identify their consent form and match the number on the consent form to the number on the questionnaire and destroy the data.

All participants will be informed that their data will remain confidential, they will be informed that they will not need to declare their name or any personal details in the study, accept their gender and age bracket if they wish to answer. Section 25 of the BERA code states that researchers must recognise the participant’s right to privacy and must ensure that their data is kept confidential and anonymous. Although the participant’s data will remain confidential and anonymous, it will be made clear that any information disclosed during the study that is of any particular concern, will be forwarded to an appropriate other, to ensure the safety needs of the participant are met.
4: DATA FINDINGS

In total, 50 questionnaires were distributed to undergraduate students. The response rate was 64% with 32 returned questionnaires. The participants were invited by a lecturer at the university. This could have introduced some bias towards the response rate, as participants may have been inclined to participate as it may be of some benefit to them in future study.

For full data analysis, please see appendices E to F

QUALITATIVE DATA ANALYSIS

4.1 POPULATION REPRESENTATION

Fig. 1 Gender of participants

Fig. 2 Age of participants

Approximately the average age of the participants is 20.13 years old.

\[
(22 \times 19) + (8 \times 22) + (2 \times 25)/32 = 20.125
\]
4.2 SOCIAL NETWORKS

**Fig. 3** The social networking accounts held by the participants.

All 32 participants had a Facebook account and 70% of participants have more than one social network account.

**Fig. 5** Minutes per day spent on Facebook by participants
4.3 FACEBOOK ADDICTION

Table 7. Looking at the Bergen Facebook Addiction Scale, Table 7 shows how many participants felt that Facebook has a negative impact on their job or studies.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
</tr>
</tbody>
</table>

1 = Very Rarely  
2 = Rarely  
3 = Sometimes  
4 = Often  
5 = Very Often

The results of this question show that the three highest scoring answers were sometimes, often and very often.

Fig 7. How many participants felt that Facebook can be addictive?

97% of participants agreed that they feel Facebook can be addictive.

4.4 IDENTITY AND NARCISSISM

Fig 12. Looks at how many participants have ever ‘un-tagged’ a photograph of themselves on Facebook

The majority of participants (30/32) said that they had untagged a picture of themselves on Facebook.
4.5 QUALITATIVE DATA ANALYSIS

Table 1. Do participants find it easier talking with friend online? The 7 participants that answered yes to the previous question and commented in the box provided.

<table>
<thead>
<tr>
<th>Participant (P)</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>‘Quicker and easier and does not involve making plans or travelling’.</td>
</tr>
<tr>
<td>P2</td>
<td>‘Not all my friends live close, so it’s harder to meet up’.</td>
</tr>
<tr>
<td>P3</td>
<td>‘I can explain what my issue is, rather than rant’.</td>
</tr>
<tr>
<td>P4</td>
<td>‘Sometimes it’s easier to have someone read what you want to say because you embarrassed or too any with them to talk face to face’.</td>
</tr>
<tr>
<td>P5</td>
<td>‘Just easier as friends live far away’</td>
</tr>
<tr>
<td>P6</td>
<td>‘Easier to approach sensitive issues with them, for example an argument, things could get a lot more out of hand if it was face to face’.</td>
</tr>
<tr>
<td>P7</td>
<td>‘Yes, but mainly in arguments, it is easier for me to get my point across when they are not in front of me arguing back’.</td>
</tr>
</tbody>
</table>

Table 2. Reasons for ‘un-tagging’ a picture on Facebook.

Themes from the answers given, in brackets, the number of participants that expressed that theme in their answer:

**Theme 1:** Picture portrayed them when they were drunk (7/30)

**Theme 2:** Picture was with an ex-partner or old friend (3/30)

**Theme 3:** Picture showed them when they were not looking their best, especially ones with no make-up on (8/30)

**Theme 4:** Picture showed them in a general bad light (12/30)
5: DISCUSSION AND DATA ANALYSIS

5.1 INTRODUCTION

This data analysis and discussion chapter will review the findings of the data gathered to examine whether addiction to Facebook has an impact on identity. The data collection tool that was used for this small scale research study was a self-completion questionnaire, which obtained both quantitative and qualitative data.

Firstly, any changes to the methodology will be discussed, then the findings will be discussed in the following themes; population representation, accessing Facebook, using Facebook, friendships, identity and Facebook addiction. For full data analysis, see appendices E to F. Then an evaluation and reflection of the research methods will be discussed, leading on to an overall conclusion.

5.2 CHANGES TO METHODOLOGY

The initial participants were invited to participate via a message posted on the universities’ intranet by their module leader. The participants were invited to meet with the researcher outside of lectures to take part in the study. The response rate for this initial research sample was low, only one participant volunteered. This was a strong disadvantage of the sampling technique, as you can never guarantee that participants will sign-up (Black, 1999).
As the target sample had not been reached, the researcher had to alter the sampling technique to obtain participants. The researcher used a snowball sample, consisting of undergraduate students that were already known to the researcher. The initial participants then referred the researcher on to other potential participants. In total 31 further participants were obtained via this method.

### 5.3 POPULATION REPRESENTATION

In total, 23 females (72%) and 9 males (28%) participated in this research study. The participants were all aged between 18 and 26, and the approximate average age of the participants was 20 years old. The participants were all undergraduate students from the same university in the midlands.

All 32 participants’ had Facebook, and 70% had more than one social network account, with the majority (66%) having a Twitter account. Other accounts listed included; Instagram, LinkedIn and MySpace. This research study only looks at the use of Facebook and how it impacts identity, however, if participants are using other forms of social media alongside Facebook, it could suggest that they are spending a vast amount of time online, and other forms of social media could be impacting on their identities.

### 5.4 ACCESSING FACEBOOK

When looking at how the participants accessed Facebook, the results showed that all 32 of the participants have accessed Facebook via a mobile phone.
Facebook statistics suggested that 63% of all Facebook users accessed the site via a mobile phone (Facebook, 2013), so the results from this small scale research study, suggest that there may be more Facebook users accessing Facebook via a mobile phone than previous statistics show, but a wider scale research study would have to be conducted to confirm this result and decipher reasons why this may be the case.

5.5 USING FACEBOOK

To try and determine how much of an impact Facebook had on the participant’s lives, they were asked how many minutes they spend on Facebook per day, results show that 79% of participants are using Facebook for at least thirty minutes per day, and 34% are using it for more than two hours per day. A recent statistic published by Facebook (2013) suggested that each Facebook user is logged on to the site for approximately 23 minutes per day. These results negatively correlate with this statistic as from these results; it suggests that the participants are spending a larger quantity of time on Facebook.

One reason behind these results could be that all of the participants were university students, and as research by Valkenburg & Peter (2007) suggests, social networks can be a valuable tool for connecting with friends and families, especially for students living away from home, as they are able to connect with people from their home towns without the need to travel a long distance.
To determine how much of an affect Facebook has on the daily lives of the participants, they were asked if they felt that Facebook was part of their daily routine, 91% agreed that it was. The following question asked why the participant felt that Facebook was part of their daily routine, and the main theme of the answers provided, was that they would not know what was going on in the world or with their friends if they didn’t check Facebook regularly. One participant stated

“If Facebook didn’t exist, I wouldn’t know what my friends are doing, what the latest news bulletins were, I wouldn’t know anything and I would be wrapped up in my own little bubble’.

Other participants stated that the first thing they do in the morning is wakeup and check Facebook, others stated that they wouldn’t know what is going on with their friends without Facebook telling them. For full analysis see appendix. This result seems to confirm what Baroness Susan Greenfield believes about an ‘existential crisis’. She believes that people no longer able to maintain relationships or know what is going on in the world, unless they find it out online (Greenfield, S. Interview. 14th February 2013).

5.6 FRIENDSHIPS AND COMMUNICATION

When looking at the maintenance of friendships on Facebook, the participants were asked initially, how many friends they have on Facebook. The results showed that 85% of participants had over 201 friends on Facebook, with 44% of
them having between 201 and 400 friends, much below the average number of friends shown in the study by Carpenter et al (2011). The study comprised of 194 undergraduate students, and they had an average of 517 friends on Facebook. This contradiction could be due to this being a small scale research study and the results may not be generalisable to the entire student population.

The participants were then asked how many of their Facebook friends they communicate with per day, 72% said that they communicated with up to 5 friends a day, with only 3% communicating with more than 11 friends per day. When looking at other research linked to communication with Facebook friends, a study by Mintel (2011) looked at what Facebook is being used for and conducted a survey of 1,597 internet users aged sixteen plus. The results showed that 78% of the participants used Facebook to predominantly keep up with friends. This research suggests that this is not the case, as the participants only communicated with a small minority of their friends per day.

One reason behind this statistic could be that the participants in this research study were using other forms of communication to keep in contact with their friends and family, they may be using a mobile phone, or maybe Skype, which is an online video chatting website.

The participants were then asked if they find it easier to talk to their friends online, rather than face to face, with 22% saying that they did find it easier. When asked why, the main themes that emerged were that it was easier as no
travelling was involved and they can keep up with friends more often. Other participants stated that communicating online is easier if there’s a sensitive issue to discuss, or they are having an argument as it is easier to get their points across. Another finding was that the 22% of participants that did find it easier to talk online were all female. This could suggest that females find face to face confrontation more difficult compared to men.

The question posed, asked if participants felt that it was easier to talk online, in the sense that they would prefer to talk online as opposed to face to face. Several participants stated that it is easier to talk online as it does not involve travelling long distances to see friends. This may suggest that they would still prefer to have face to face communication, but it may not be possible due to distance and other commitments.

Baroness Susan Greenfield believes that as a nation we are slowly becoming dependant on the use of social media to communicate, which she states is a ‘worrying’ thought. These results suggest that face to face communication may not be redundant, but if the beliefs of Baroness Greenfield become apparent, a generation of young people who do not know how to communicate effectively face to face may be created (Greenfield, S. Interview. 14th February 2013).

5.7 IDENTITY

Trying to examine whether identity is affected by Facebook, was complex. It is difficult to tell whether certain characteristics of a Facebook profile, mean that
their identity has been altered. To test this, participants were asked a series of questions relating to their Facebook profiles. From the results of this small scale study together with previous research studies, a link can be made between a change in identity and Facebook use.

Narcissism can be defined as where an individual is described as being extremely obsessed with issues of personal adequacy and prestige (American Psychiatric Association, 1994). One of the key findings from this research study is that 94% of participants have un-tagged a picture of themselves on Facebook. Interestingly, the 6% of participants that said that they had not un-tagged pictures were male. There are many assumptions that could be made about this finding, it could be that the females in this particular research study could say that their appearance is high priority to them compared with other females not taking part in this study, or it could be that the sample that was used are particularly narcissistic.

The participants were then asked why they un-tag pictures of themselves and four themes evolved from their answers. The themes were; that the picture showed them in a bad light, the picture showed them not looking their best, especially without make-up on, the picture was with an ex-partner and the picture was taken when they were drunk.

These findings could correlate with research by Mehdizadeh (2010) and Kuss & Griffiths (2011) who look at whether other personality traits such as
extraversion have an impact on the narcissistic traits of an individual. Another possible reason why the percentage of participants un-tagging pictures is so high, could be because the participants were all students, and aim to seek the approval of new friends at university.

When looking at pictures posted by the individuals, 66% of the participants said that they had used a picture editor, for example Photoshop, to edit out any imperfections in a photograph. A study by Carpenter et al (2011) looked at the correlation between editing pictures and narcissism, and argue that people do not want themselves to be portrayed as anything less than perfect, so hide all of their imperfections by editing them out (Carpenter et al, 2011).

**5.8 FACEBOOK ADDICTION**

For this section of the questionnaire, the Bergen Facebook Addiction Scale (BFAS) developed by Andreassen (2012) was used to determine whether participants were addicted to Facebook using the criterion formulated for the BFAS. To determine whether someone is addicted to Facebook, the participants had to score ‘Often’ or ‘Very Often’ on at least four out of the six questions to be classified as addicted to Facebook.

Unexpectedly, the results showed that only 7 participants (22%) were classified as addicted, according to the criterion followed from the BFAS. It shows that the majority of the participants’ answered ‘Rarely’ or ‘Sometimes’ to most of the six questions. This does not link with previous research that has been conducted in
this area. The BFAS study seemed to provide evidence that Facebook addiction was an increasing problem, furthermore, a new application has been developed called the ‘Freedom app’. It has been introduced in 2013 to restrict users from the internet so that they can be ‘productive’ (Apple, 2013).

The introduction of this application suggests that individuals have difficulty in being productive as they spend too much time surfing the internet and social networking. It may seem that if there is a need for this application to be introduced, a problem of internet addiction is apparent and new ways of preventing this are being constructed.

Baroness Susan Greenfield also expresses her worries about the amount of time young people are spending on Facebook; she argues that if there is a need to introduce an application to restrict time spent on the internet, there is clearly a problem (Greenfield, S. Interview. 14th February 2013). However, looking at the results of how much time participants spent on Facebook, and with 34% spending at least two hours a day on the site, it could suggest that the BFAS scores were unreliable. It seems that the questions on the BFAS may have been too vague, and participants were unsure of what to answer. If we correlate the scores of the BFAS with the questions about using Facebook, it could be seen that the participants could be addicted to the site.

Relating the questions about Facebook use and addiction to a wider framework, it could suggest that participants are not addicted to Facebook; however they
could be addicted to social networking. As previously discussed, 70% of participants had more than one social network account, so if the time spent on each social network were combined, it may produce a different result and further study in this area would be needed to test this theory.

5.9 EVALUATION AND REFLECTION

When looking at how effective the questionnaire was in gathering primary data, it worked well within the context of the research. The participants seemed more willing to fill out a short questionnaire as opposed to a lengthy interview. It also allowed a vast quantity of data to be collected in a short period of time, allowing time for rigorous analysis. One limitation to using a questionnaire was that it had to be kept short in length, both to maintain the engagement of participants and try to gain reliable, valid answers, as stated by Bell (2010).

Due to the questionnaire being short in length, it meant that the questions had to be selected carefully to ensure that all key themes were tested. This was a complex and difficult aspect, and it did mean that some questions, that may have provided key data, had to be removed, thus limiting the ability to thoroughly examine the research question.

The sampling technique was initially poor, due to it being a volunteer sample; it relied solely on the participants to come forward. As practise showed, only one participant volunteered, meaning the researcher had to change their sampling technique quickly and efficiently, in order to ensure that data was collected.
promptly. Although participants were obtained promptly, the use of a snowball sample reduced the representativeness of the sample. According to Black (1999) using a snowball sample makes it difficult to know whether a representative sample can be gained.

Because of this, the data could not be too widely generalised, as further research, on a wider scale would need to be conducted to achieve a representative sample. Another limitation to the generalisability of the study was that the participants were all students, which does not make it representative of the general population. If the study were to be repeated, the sampling technique would need to provide a representative sample, and the research would need to be conducted on a wider scale.

Overall, albeit this research study being small scale, it still contributes to the understanding of this new, evolving topic area. For example, Denscombe (2010) states that small scale research can provide accurate findings, without the need to collect data from every member of the target population. As this topic area is relatively new in terms of the amount of research that has been conducted specifically linking addiction to identity, it seems there is a need for further consideration into this topic area. If the government will soon be branding the next generation as ‘Generation Z’ (Beddington, 2013), something needs to change to ensure that the youth of tomorrow are protected from any potential harm that could be caused by social media.
6: CONCLUSION

The main outcomes of this small scale research study, is that there seems to be a strong correlation between the use of Facebook and alterations to identity. The results suggest that the participants’ were keen to portray themselves in an ideal light rather than an accurate portrait of themselves. When looking at the results, 94% of participants have un-tagged an undesirable picture of themselves, suggesting that they desire to be seen by others in a different light or more favourable way.

Another key finding from the research study was that 66% of participants have used editing software to edit out any imperfections in pictures, this correlates with the work of Carpenter et al (2011) who argue that the editing of pictures has strong links with narcissistic traits. As discussed, the results of this study would be difficult to generalise to the general population, as only student participants were involved, however, these results could indicate the early signs of the impact that Facebook can have on an individual.

When looking at how the participants used Facebook, the findings suggest that the participants in this study used Facebook for long periods each day, and some participants (34%) using Facebook for over two hours per day. When linking this to the Bergen Facebook Addiction Scale (BFAS), it seems that participants did not score highly on the BFAS, meaning the results were negatively correlated to the findings of Andreassen (2012) when the study was conducted originally.
This raised additional questions about how much time the participants spent on social networking as a whole, with the results showing that 70% of participants used more than one social network, results may suggest a higher rate of addiction if all social networking use was taken in to consideration. It could be suggested that the term Facebook addiction should be re-evaluated to look at social network addiction as a whole. This way, the research could encompass all avenues of social networking and provide a clear understanding of how much time individuals are spending on these sites.

The results of this comparative study show that extensive further research is needed in to this topic area. Although these results suggest that Facebook addiction is prevalent and can have an impact on identity, it should be considered to encompass other types of social networking, to get a true picture of how much social networking is affecting the lives of individuals. When looking specifically and young people, research needs to be conducted to ensure that they are protected from any harm that may arise from a potential generation of social network addicts.

Overall, with new technologies emerging every day, it seems there is a need to research this topic further, and understand how this increasing level of technology is impacting on individuals. It is also important to ensure that children and young people are made aware of the impact excessive use of social
networks can have, and how to aid them in the transition into this virtual revolution.
7: RECOMMENDATIONS

Looking at possibilities for future study, there are many issues that will need to be considered by the researcher. The first is the scale of the research, it would be vital to ensure the sample was representative of the population, not targeting on one strain of the population, such as students. The researcher would also have to consider using a wider sample, to enable them to generalise the results to the wider target population.

Another recommendation would be that the topic area of social media could be researched as a whole rather than just looking at Facebook. Although Facebook is the largest social network, the researcher could look at growing social networks such as Twitter and Instagram. By doing this, the researcher could evaluate the participants’ addiction to social networking as a whole and correlate this with how it may have an impact on identity.

It should also be considered to conduct research with a younger sample. The reasons behind this is that the virtual revolution is going to impact on the lives of children and young people in terms of the way they communicate, the way they are educated and the way they are entertained. It may be worthwhile to consider conducting research with under sixteen’s to ensure that they are aware of the impact social networking can have on their lives and ensure they are prepared for a future of constantly developing technology.
Finally, conducting research with more than one data collection tool may enhance the outcomes of future research. It could be suggested that by conducting semi-structured interview or a focus group to gather raw, qualitative data could be beneficial when determining whether a participant feels their identity has altered as a result of excessive social network use. When looking at these recommendations, it seems that extensive research is needed in this topic area to understand Facebook addiction and how much of an impact it has on individuals, and to try and find solutions to this emerging issue.
REFERENCES LIST


