Self-Help through Blogging: Psychosocial and Motivational Aspects

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1 December 2011
Abstract

The current thesis explored why and how people use their blogs, and the psychosocial consequences of blogging. Its three main studies utilized a range of methodologies (qualitative, cross-sectional, longitudinal) and samples (convenience and naturalistic) to examine the use and effects of blogging in terms of perceived and actual benefits.

Study 1 (n=289) used an opportunistic qualitative sample to analyze blog commentary on the motivations for blogging and the mechanisms for psychosocial change from the perspective of bloggers themselves. Commentary on previous research conducted by the author on the psychosocial outcomes of blogging provided an opportunity to both validate previous research findings, and to explore in more detail some of the aspects which motivate a blogger to start and maintain their blog.

Study 2 (n=603) examined the motivations for blogging from a quantitative perspective, and looked in particular at how the motivations of bloggers differed from those of social networker users. A blogging motivation measure was created and seven motivations emerged from the research: exchanging information, sharing self, exchanging affect, professional advancement, documenting experience, entertainment, and connecting with others. Bloggers were higher than social networkers on all motivations except connecting with others where social networkers were higher, and entertainment where there were no significant differences. The motivations identified the importance of both the existing qualities of pen and paper diaries as therapeutic outlets, and the emergent social qualities of the blog.

Study 3 (n=208) explored changes, after a period of 250 days, in psychosocial well-being for bloggers and social network users initially recruited in Study 2. Bloggers were higher than social networkers on mean online bridging and bonding social capital scores, and while bloggers displayed higher scores on social anxiety and emotional distress than social network users at Time 1, there were no differences between the groups at Time 2. Bloggers also experienced significant decreases in social loneliness and increases in online bridging capital over the time
period of the study. The psychosocial characteristics of bloggers were largely related to the content bloggers wrote about. Bloggers posting high amounts of personal content generally had higher levels of social anxiety, loneliness, and emotional distress.

Overall bloggers indicated that they intended to meet emotional, social, and personal identity needs through using their blog, and bloggers were largely successful at creating online social capital and in decreasing psychosocial ill-being over time. Potential mechanisms of change and clinical implications were briefly discussed.
Acknowledgements

First and foremost, I would like to thank my principle supervisor Professor Sue Moore for her time, helpful suggestions, and for the support she provided throughout the process of writing this thesis. I really appreciate the time she consistently put aside to meet with me whenever I needed some guidance, and how she read through and returned drafts of my chapters with amazing speed and constructive feedback. I never had an opportunity to worry as contact was always present when needed and I received thoughtful responses to my emails even on days when she was not even at work. I really enjoyed the entire process of constructing this thesis and am grateful for her consistent presence and support.

Additionally, I would like to thank my co-supervisor Associate Professor Ann Knowles for all of the assistance which she provided, and in particular for her comments on the final drafts of this paper.

I am very grateful to Swinburne University for allowing me this opportunity to further my study, and to my participants without whom this research would have been impossible.

Thank you to my reviewers for offering to undertake this examination of my dissertation and for the feedback which you supplied.

Finally, I would like to thank my family for their long time support of my educational process. It is due in great part to their ongoing support of my academic pursuits from an early age that I am submitting this thesis today. No matter what my need they offered support in whatever form they could, from providing me with an amazing educational foundation, to proofreading my papers early in my career for spelling errors, and finally offering emotional support and words of encouragement. Likewise I'd like to thank my friends who provided support and encouragement, pushing me to get this final document to the finish line. I appreciate it all.
Declaration

I declare that this report does not incorporate without acknowledgement any material previously submitted for a degree in any University, College of Advanced Education, or other educational institution; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in text.

I further declare that the ethical procedures specified in the Faculty of Life and Social Sciences/Institute for Social Research Statement on Research Ethics have been adhered to in the preparation of this report, and a final ethics report has been submitted.

Name: James R. Baker

Signed:………………………………………………
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1 Introduction

The number of internet users has increased over the last 10 years at a high rate, from nearly 370 million in 2000 to almost 2 billion in 2010 (The Miniwatts Marketing Group, 2010). This represents a nearly 450% increase, and current trends suggest this number will continue to grow until it approaches market saturation. The impact and influence of internet technologies is of great interest as online technology is becoming an increasingly pervasive and universal component of daily life. In particular, applications which involve the exchange of information such as email and social network websites have come to the forefront of internet usage. In the United States almost 80% of the population uses the internet, and of these 94% send or read email and 61% utilize social network sites (SNSs; Pew Internet & American Life Project, 2010). SNSs have become so mainstream that a popular movie, *The Social Network*, has been released which depicts a version of the story of how Facebook.com rose to 500,000,000 members worldwide in just over five years.

With the proliferation of internet applications, a number of concerns have been raised. These include fears around a decrease in face-to-face (FTF) social connections and interpersonal skills, the potential for addictive behavior, and the potential for a number of negative psychosocial outcomes including loneliness, depression, bullying, stalking, dismissal from work, murder, and suicide. The media has been quick to publish stories involving new media and adverse events; in particular news about SNSs has increased in recent years. SNSs have been described as influencing a variety of aspects of a user's life including their eating habits, happiness, opinions, and even risk of sexually transmitted infections (Landau, 2009). Social network site usage has been linked to social class and cultural group, and implicated in social divides (Hare, 2009). Online sexual predators have been trapped ("Parents trap facebook predator ", 2009), jailbreak fugitives tracked (Han, 2009), and net-bullies served intervention orders (Hunter, 2010), all using SNSs. Internet usage has been linked to depression (Reuters, 2010), and concerns about mental health have been amplified by concerns that the use of internet applications to communicate has effectively allowed teenagers to communicate without the presence of parents and teachers, making it more difficult to detect problems and offer support (Benson, 2010). Internet applications, and particularly social internet
applications, appear to have the potential to have extreme effects on the quality of a person's life.

SNSs have also received positive press, with recent research suggesting users can build self-esteem more easily through online interactions than in real life (Gonzales & Hancock, 2011). SNSs are forecast to be able to better provide custom banking and retail services than existing banks and retailers (Hopewell, 2011). Social media can help people find jobs and get promotions (Willis, 2011), recruit employees, and increase collaboration and productivity (Talbot, 2011). Social media can also humanize companies, increase business, and create excitement in the financial world (Wright, Lewis, & Laing, 2011).

Blogs are less prevalent than SNSs or email usage, and only around 14% of the US population maintains a blog (Lenhart, Purcell, Smith, & Zickuhr, 2010). However, in addition to this sizable percentage of the population using stand-alone blogs, a number of popular websites incorporate blogs in varying forms. Sites like Twitter.com allow internet users to post 'micro-blogs' which are very short blog entries updating other people about ongoing events in a user's life. Popular social networking sites often incorporate microblogs and blogs, with Facebook.com's status update as a microblog and Myspace.com offering full blogging facilities. Thus, while there are only approximately 70 million stand-alone blogs (Technorati, 2009), hundreds of millions of internet users use micro-blog or blog functionality through other internet applications. Blog usage and its consequences are thus of interest.

Like SNSs, blogs receive both positive and negative press. They are hailed as devices for free media in some countries, and in other countries result in citizens being detained or imprisoned due to their content (Abdelaziz, 2010). One blogger lost her unemployment benefits after making a profit of $1 a day from advertisements on her blog (Mah, 2009). Another blogger was fired from his job for writing about the conditions of his work site (Pierse, 2010). The President of the Philippines's Assistant Secretary made international news for commenting "Sorry, but there are no handsome men here" and "The wine sucks" on her micro-blog during a state dinner in Vietnam (Villanueva, 2010). The internationally embarrassing incident led the Philippines Senate President to comment that "whatever you say in your blog, in your Facebook, in your Twitter, that becomes
public. You cannot divorce your role as an employed government official from your work as a private person. You cannot say 'I did that as a private person, I said, the wine sucks because I want to express my own private opinion.' (Cabacungan, 2010).

These recent examples of the incautious use of blogs highlight a number of areas for concern. First, users may be more vulnerable to disinhibited or inappropriate behavior when using internet applications as they do not feel an authority figure is present (Suler, 1999). Also the relative permanence of internet communication is of concern. Past blog posts may be backed up on multiple servers by a host company and stored for an unknown length of time. The unknown permanence of blog posts makes blogging and other forms of computer-mediated communication potentially very risky for individuals and businesses, both for civil and criminal cases (Gottschalk, 2005). With blog posts remaining indefinitely on websites, it is now possible for an employer or a client to search through private records (Gilbert, 2006) and monitor individuals at will. While note passing and office jokes existed well before the invention of the blog, the blog is more enduring and much more widely circulated than memos and faxes.

The potential for misuse or negative consequences of blogging are not unique to this application. Most internet applications can be misused, and the misuse of communication tools in particular frequently leads to company lawsuits and work dismissals (Greenfield & Davis, 2002; Porter, 2002). Inappropriate usage of communication technology can create negative publicity for companies (Rudner, 2005) and expose them to liability (Gottschalk, 2005). A British study of 212 companies found that email and internet abuse were a greater cause of disciplinary action than all other types of misconduct combined, including lying and stealing (Porter, 2002).

Despite this, research on blogging suggests that a range of real-world improvements are possible through this medium. Blogging one's ideas may facilitate thinking (Doctorow, 2002) and learning (Huang, Chou, & Lin, 2008), as well as result in both emotional and social gains for users (Baker & Moore, 2008a, 2008b). Because of its public nature, this tool has potentially wide-ranging positive and negative consequences, both individually and on a larger social scale. Thus the study of blogging behavior is important.
As blogs are a relatively recent phenomenon little quantitative research has been conducted into why and how people use their internet blogs, and the psychosocial concomitants and effects of their usage. Thus one key aim of the present thesis is to examine why people choose to blog and how their motivations to blog differ from motivations to utilize other internet applications, specifically social network sites. To meet this aim potential individual motivations and gratifications associated with blog usage are constructed from research conducted in the current thesis, collected from the existing body of literature, and analyzed with the goal of creating a comprehensive blogging motivation measure. A second overarching aim is to examine the social and emotional outcomes of blogging in general and different types of blogging in particular. Building on earlier research by Baker and Moore (2008a, 2008b) changes in well-being are examined over a longer period of time with the aim of identifying more specifically how well-being is or isn't affected, and to what extent changes in well-being are influenced by the content an author writes about.

The thesis involves three main studies. First an opportunistic qualitative study examined what people said about why they blog, and how they perceived their blogging experiences as influencing their motivations and behaviors. The key question during the qualitative study was how do bloggers construct meaning for their blogging experiences. The second study involved the creation and validation of a scale to measure motivations to blog based on past literature and the results of Study 1. This scale was used to examine how bloggers' motivations differ from those of non-blogging social networkers. Finally, the third 250-day longitudinal study examined psychosocial changes (e.g., social anxiety, loneliness, emotional distress, social provisions, social capital) in bloggers relative to non-blogging social network users in general, and in terms of the content bloggers wrote about (e.g., personal, topical, mixed). This final study aimed to examine the longer term effects of using each medium, if any.
2 What is Blogging? A Review of Literature on Blogging, Computer-Mediated Communication, and Self Presentation on the Internet

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2.1 Overview

This chapter provides a description and brief history of personal journal blogging, examines how blogs relate to other forms of media, and discusses the potential use of blogs as communication and identity management tools. At present, improvements in technologies have made blogs (and micro-blogs) widely available and easy to utilize. These improvements have impacted on accessibility, usage and readership, and in particular sociability and subject matter. While early blogs largely started as stand-alone online versions of pen and paper journals, today they have the capacity to act as large scale communication tools which can serve as a point of community development and growth. Modern blog audiences have the potential to number in the hundreds of thousands. Consequently blogs have evolved considerably from their simpler and more private pen and paper roots.

In considering how the blog evolved, the present chapter explores how blogs align with other forms of online and offline media and how blogs can be classified. Many of the communication functions and content found in blogs overlap with those found in other media such as email, webpages, and newspapers. Related technical elements of the blog are introduced as a basis for understanding how blog authors can control their blog in terms of communication, privacy and content.

The remainder of the chapter examines the communication and disclosure aspects of blogs in greater detail. Research on computer-mediated communication and communication theory, where users transmit and receive intended and unintended messages to each other, is discussed. Both positive and negative aspects of online communication are described to help explain individual communication behaviors. Then, user control and identity management are examined in more detail, in particular how authors choose to portray themselves through what they write about and who they share it with are considered in terms of identity management and self-esteem.

An understanding of how blogs can be utilized to communicate with others is relevant in examining the psycho-social impacts of blogging. Blog authors have the capacity to communicate with familiar or unfamiliar audiences about highly emotional or more neutral experiential content. What an author chooses to disclose and to whom can have consequences in terms of self-image, self-esteem, social
support, and self-identity, and thus blogs have the potential to expose users to a range of positive or negative psychosocial experiences. Where a blogger discloses personal information in a public arena the personal consequences can vary from a sense of social support and well-being to humiliation and shame depending on the actions of the readers. Thus a basic understanding of the elements of the blog, its use as a communication tool, and an author's control over disclosure are essential for examining this activity in terms of psycho-social outcomes.
2.2 What are blogs?

2.2.1 Introduction

Weblogs, called 'blogs' for short, are webpages containing numerous entries or 'posts' which are normally listed in reverse chronological order so that the most recent postings are first (Herring, Scheidt, Wright, & Bonus, 2005; Nardi, Schiano, Gumbrecht, & Swartz, 2004). The term 'blogging' refers to the act of updating a blog with a new post, and the term 'blogger' refers to a person who maintains a blog (Wang & Lin, 2009). Blogs are normally easy to use and maintain, and require minimal technical knowledge to operate (Baush, Haughey, & Hourihan, 2002).

Blog posts, which form the content of the blog, are individual entries created by one or more authors and may include text entries, photographs, music clips, and video clips. As blog posts can contain multiple types of media including video footage, art, music, sound clips, and pictures, a blog is a medium through which bloggers can construct a multi-faceted online persona in a form not otherwise possible in offline life (Serfaty, 2004; Vattimo & Welsch, 1996).

Blogs are most commonly identified and classified in terms of the content in their posts (see Section 2.3, p. 13, for more detail). The simplest form of classification divides them into two main categories; (a) blogs with content that is external to the author, such as political blogs, media blogs, and technology blogs, normally referred to as linking or informational blogs, and (b) blogs that focus on personal life events or internal aspects of an author's life in a manner similar to a personal diary, referred to as personal journal blogs (Snider, 2003). Thus personal journal blogs differ from informational or professional blogs in that their focus is on personal information about the author or the author's life (Crowston & Williams, 2000).

Informational blogs, as the name suggests, provide informational resources to the public. The author(s) can be private individuals or organizations (Kelleher & Miller, 2006), and the material provided might include product information and reviews, political information, information about organizations or clubs, and other types of information that might be of interest to public. While all blogs have the capacity to link readers to other online material (Nardi et al., 2004), this is particularly the case with informational blogs which are often aimed at enabling
readers to follow up the content of the post by seeking out other references (Blood, 2002).

Studies of informational blogs are overrepresented in the literature (Hollengaugh, 2011) and these studies have often utilized small sample sizes (Trammell, Williams, Postelnicu, & Landreville, 2006). Also, while informational blogs are of particular interest in terms of organizational psychology and commercial usage, for example in terms of defining the elements of a blog which attract readership, these types of blogs are more likely to have multiple authors and by their nature are less expressive. In comparison, Herring, Scheidt, Wright and Bonus (2005) describe personal journal blogs as "individualistic, even intimate, forms of self-expression" (p. 24). Personal journal blogs generally involve larger elements of individual expression, self-disclosure, and interpersonal communication and feedback, and are more influenced by the individual characteristics of the author such as affect, personality and motivation. The inherent individuality and unique character of each blog may in part explain some of the difficulties in conducting research on personal journal blogs. Examination of this variation and its relationship to psychosocial outcomes forms part of the current thesis, specifically, Study 3 (see Chapter 8, p. 199). The present research largely focuses on personal journal blogs written by private individuals with the majority of the posts or content reflecting the thoughts, opinions or experiences of the individual author, although it is worth noting here that content type does not always neatly fit into the 'personal' or 'informational' categories.

2.2.2 Key Features of a Blog

Some of the key features of a blog are outlined below in Table 2.1. These features underpin the examination and discussion of blogs throughout the thesis. Not all features are present in all blogs. While all blogs require authors who create and post content on their sites, not all blogs have readers or allow comments. Similarly, hyperlinks and comments are the two main mediums of communication on blogs, but some users disable or neglect to utilize these components.
Table 2.1
An Overview of Some of the Key Features of a Blog.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Users/Type</strong></td>
<td></td>
</tr>
<tr>
<td>Individual Blogs</td>
<td>Blogs written by individual authors which tend to have an informal and personal style of writing (Herman, Jahn, &amp; Ryan, 2005).</td>
</tr>
<tr>
<td>Group Blogs</td>
<td>Blogs where a small number of regular members contribute blog posts (Bar-Ilan, 2005).</td>
</tr>
<tr>
<td>Community Blogs</td>
<td>Blogs where a large number of community members contribute blog posts (Bar-Ilan, 2005).</td>
</tr>
<tr>
<td>Blog Readers</td>
<td>Individuals who seek out and read blog posts, but who may or may not create their own blog posts (Wang &amp; Lin, 2009) or comment on blogs.</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td></td>
</tr>
<tr>
<td>Blog posts</td>
<td>Entries in the blog which may contain text, images, video, or audio files which the blog author constructs and publishes (Serfaty, 2004).</td>
</tr>
<tr>
<td>Comments</td>
<td>A key, but optional, blog component where authors and readers can converse about the topic of blog posts (Du &amp; Wagner, 2006). Authors can shape the tone of commentary by moderating and deleting comments (Bar-Ilan, 2005), and through the level and type of engagement with readers. Comments offer the opportunity for readers and authors to interact, express opinions, and cognitively engage with each other.</td>
</tr>
<tr>
<td>Sidebar</td>
<td>An area of the blog beside the blog posts which may contain content such as information about the author, a description of the blog, or links to content of interest to the blog author.</td>
</tr>
<tr>
<td><strong>Hyperlinks</strong></td>
<td></td>
</tr>
<tr>
<td>Links</td>
<td>Text or pictorial links to other documents that a blog reader can click on and follow, generally placed within blog posts, blog comments, or on the sidebar of a blog (Bar-Ilan, 2005; Blood, 2002). Common links are 'tags' which act as names or keywords for bloggers to categorize the content of blog posts, and URLs which point blog readers to relevant websites.</td>
</tr>
<tr>
<td>Trackbacks</td>
<td>TrackBacks are a specific type of hyperlink unique to blogs used to link blog posts with other blog posts or websites with similar content (Bar-Ilan, 2005). Trackbacks can facilitate a conversation between blog authors and readers of multiple different blogs written on the same topic (Wikipedia, 2009).</td>
</tr>
<tr>
<td>Blogrolls</td>
<td>Blogrolls are a collection of links put together by the blog author which link readers to other blogs or websites that the author recommends (Blood, 2002).</td>
</tr>
<tr>
<td>Blogrings</td>
<td>Blogrings are formed when blogs with similar topics or interests connect to each other, and allow readers to move between one blog and the next in the ring via the hyperlinks (Blood, 2002).</td>
</tr>
</tbody>
</table>
2.2.3 The Birth and Evolution of the Blog

Early blogs were almost entirely of the personal journal type (Du & Wagner, 2006). The majority of blogs today, between 70-80%, are of this type regardless of the age or gender of the author (Herring, Kouper, Scheidt, & Wright, 2004; Herring et al., 2005; Rosen, 2004). Personal journal blogs are partial descendants of the online diaries of the mid-1990s (Herring et al., 2005), which originated when early internet adapters utilized HTML websites to display their pen and paper journals. Adoption of online diaries was slow as few people had the technical skills to produce these (IP & Wagner, 2008). However, with the introduction of free blogging software, which enabled the process of publishing a blog without extensive technical knowledge, many more people were able to post personal entries on the internet (Blood, 2000).

Using the simplest blog software, all an author needs to do to publish a blog post is type their content into a box, click submit, and the blog post is published (Du & Wagner, 2006; Miura & Yamashita, 2007). Thus blogging has become easily accessible to a much larger audience of internet users with lower levels of technical skill (Jung, Youn, & Mcclung, 2007).

As the transition occurred from complicated low-adoption websites containing diary entries to easy-to-use high-adoption blogs (Herring et al., 2005), the blog replaced the online diary as what might be considered the digital evolution of the traditional pen and paper journal (McNeill, 2003). Jung and Youn (2004) suggested that the introduction of easy to use software was the critical event that transitioned the online journal to the weblog. Paralleling software advances, an increasing number of websites providing this software helped further raise the accessibility of this internet application. While originally individual websites needed to be constructed by each user, the rise of specific blog service provider websites such as LiveJournal.com and Blogger.com further augmented the spread of blogging as a practice.

Advances in software development have also enabled blogs to serve as an interface between real-world relationships and online connectivity, with many of the most popular websites such as SNSs introducing blog functionality into their platforms (IP & Wagner, 2008). Recently blogs have evolved to include more communication interfaces and more advanced practical applications such as software to organize meeting groups of friends (Du & Wagner, 2006) and the ability...
to facilitate simultaneous conversation across numerous blogs. These communication and socialization advances have contributed to the rapid growth of blogging. Blogs first started appearing en masse in their current format between 1996-1997 (Herring et al., 2005). They have increased in prevalence exponentially from estimates of a few hundred hand coded websites in the early 1990's to around 30,000 blogs in 2000 (Hsu & Lin, 2008), over 500,000 in 2003 (Wagner, 2003), 4 million by the end of 2004 (Technorati, 2004), and over 70 million in 2009 (Technorati, 2009). This number grossly underestimates the total number of blogs, as blogging functionality has been incorporated into a number of other internet applications such as SNSs like Facebook.com.

2.2.4 Blogs and the Emergence of Social Network Sites (SNSs)

Blogs predate SNSs such as MySpace.com and Facebook.com. boyd [sic] and Ellison (2008, p. 211) defined SNSs as "web based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system."

Blogs and SNSs are similar in form and function, in that they both enable people to connect with each other, share their daily activities, and maintain relationships (IP & Wagner, 2008). Many SNSs include a micro-blog feature whereby users can post short messages or updates outlining their personal status with comments about topics such as their current mood or recent life events. Facebook, for example, refers to its micro-blog as a 'Status Update'. Major SNSs also often enable users to create full blogs. For example MySpace.com has a "blog" section and Facebook has a "notes" function where users can write short entries or publish writings (Hollengaugh, 2011). Internet research often combines blogs with SNS sites when generating statistics, highlighting their interrelatedness (Neilsen Company, 2009).

Like blogs, SNSs have grown exponentially in number between 2004 and the present. Blogging as a stand-alone task has declined since 2006 and at present 14% of teenagers and 11% of adult internet users in the US currently maintain a blog (Lenhart et al., 2010). In contrast SNS usage has increased in prevalence with 73% of American teenagers and 52% of adults estimated to use SNSs. The decrease in popularity of stand-alone blogs in recent years is unsurprising in light of the
availability of these functions on the increasingly popular SNSs. While blogs and blog features are now common on SNSs it is important to consider stand-alone blogs independently of SNSs. Microblogs on SNSs are limited by their short text based form and often do not have the technical capability to have the same depth (generally 150 characters), content (no photos, videos or music), or focus (immediate, brief content) of stand-alone blogs. Blogs may differ from SNSs in focus, with SNSs reflecting more "in the moment" experiences and blogs providing an opportunity for more thoughtful contemplation.

Recent publications have highlighted comparisons of SNSs and blogs as an important area of future research (Hollengaugh, 2011). There is some limited evidence to suggest blog and SNS users may differ in predisposing factors and outcomes. Bloggers appear to have more diffuse interests and motives than SNS users who generally appear to be limited to communicating with existing members of their FTF social network (boyd & Ellison, 2008). Blogs also tend to have different audiences; SNS users rarely interact with strangers (boyd & Ellison, 2008), whereas blog audiences can be composed of peers, strangers, or a mix of the two (Qian & Scott, 2007). Previous research comparing SNS usage and blog usage (discussed in more detail in Section 4.3.2, p. 82) found that new bloggers made greater psycho-social gains than SNS users over a period of 2 months (Baker & Moore, 2008a, 2008b). This may be in part due to the greater capacity for therapeutic written expression available in blogging, as bloggers generally write more and follow topics in a more sustained way.

2.3 Classifying Blogs

There are a number of aspects of the blog which can be used to classify them, including by content, usage intensity, or using multiple characteristics including authorship and format. Major categorization types are briefly described below.

2.3.1 Content

Traditionally, content classification has been considered broadly in terms of the personal relevance to the author. As such the simplest classification has been to consider content as being personal (about me, my life, and my relationships) or non-personal (about things external to myself) (Snider, 2003). Blogs with non-
personal content have been given a variety of names including linking blogs (Herring et al., 2005), topic-oriented blogs (Bar-Ilan, 2004), informational blogs (Herring et al., 2005), and filter blogs (Blood, 2002). Non-personal blogs can be further categorized in terms of their individual content (e.g., technology blogs, news blogs, entertainment gossip blogs, etc.). There are a number of variations based on this differentiation of personal and non-personal content.

In her categorization of blogs Blood (2002) identified the two factor personal/non-personal classification (i.e., personal journal and filter blogs), and added a third category called 'notebook' blogs. Notebook blogs were classified by their length and focus instead of their content, and contained entries of greater length and depth than normal blogs (e.g., essays rather than short blurbs). Barr-Ilan (2004) similarly created another tripartite classification of blogs after monitoring a set of blogs for two months and conducting a content analysis of the postings. Blogs were still classified as personal or non-personal, but in this case non-personal blogs were broken into two further classifications: topic oriented blogs which are written on a specific topic, and associative or linking blogs where readers can access a variety of relevant hyperlinks to other sources of information (e.g., informational signposts).

Herring et al. (2005) presented a more complex 5 factor classification system for blogs after conducting a genre analysis of 203 blogs using a modification of Blood's (2002) three factor categorization. They retained the differentiation of personal journal and filter/informational blogs, but they replaced the notebook blog category in Blood's system with the knowledge blog, reflecting the use of blog software for knowledge management and record keeping. Knowledge blogs do not necessarily reflect records of human experience, and instead might better be considered as using a pre-existing electronic medium for alternative information processing and storage capacities. Herring et al. also recognized that many blogs changed or overlapped from post to post in content, so they created a 'mixed' blog categorization. Finally they pointed out the existence of numerous 'other' types of blogs such as photo diaries, conversational devices, and blogs used to post reminders, and grouped these together as the frequency of each was so low as to not warrant individual classification.

Herring et al. (2005) highlighted that the main limitation of classifying blogs by their personal relevance to the author is that this presupposes that blogs on external
content do not include personal experiences or beliefs; they assume that external content is less personal in nature. However a number of personal blogs include external information (e.g., talking about attending a political rally), or external blogs contain personal commentary (e.g., discussing a personal experience of using a new mobile phone). In the present thesis Study 3 involves an examination of how blogs might be considered in terms of both internal and external content simultaneously, rather than considering either type of content to exclude the other (see Chapter 8, p. 199).

2.3.2 Usage Intensity

Blogs have also been described in terms of usage intensity and volume. In a qualitative study IP and Wagner (2008) interviewed 33 blog users and identified four types of bloggers based on intensity of usage, ranging from most to least frequent: Habitual/Enthusiastic bloggers, Active bloggers, Personal bloggers, and Blogging lurkers. Habitual bloggers are frequent users who are strongly engaged in writing, reading and commenting on other blogs. Habitual bloggers post frequently and appear to be highly intent on utilizing their blog to socialize with others. Active users also appear to use their blogs to socialize with others, but their usage is less intensive than that of Habitual bloggers. Personal bloggers used their blog as a personal diary and their content appears to be more private than social. Personal blog usage was generally lower than the former two groups, but usage varied depending on personal circumstance. Finally, Blogging lurkers rarely or never used their blog. They generally subscribed to blog sites to read the blogs of friends or other individuals. While IP and Wagner largely classified blog usage in terms of volume (e.g., writing, reading and commenting), they also considered blogging in terms of content, lending this type of classification to a multiple characteristic type as well.

2.3.3 Multiple Characteristics

Kawakami and Yamashita (1998) suggested blogs can broadly be categorized in terms of how personal the content is, and whether the content is intended for the author or for the public. They suggested four major categories of blog posts: posts
that recorded facts for the blogger's benefit (memoirs), post that recorded facts for others (journals), posts that expressed personal sentiments for the blogger (diaries), and posts that expressed personal sentiments for others (open diaries).

Krishnamurthy (2002) modified Kawakami and Yamashita's (1998) categorizations and proposed a two dimensional classification of blogging instead based on characteristics of both authorship and content. Authorship was classified as either individual or community, and content as either personal or topical. Consequently, four main typologies of blogs were identified: personal-individual blogs such as personal journal type blogs, personal-community blogs such as support group blogs, topical-individual blogs such as personal news editorials, and topical-community blogs such as group technology blogs. This classification, while simple, adequately groups blogs into categorical groups (see Figure 2.1). The shaded section of Figure 2.1 identifies the more personal and individual nature of personal journal blogs.

![Figure 2.1](image.png)

*Figure 2.1.* Krishnamurthy's (2002) proposed classification of blogs in terms of intended readership and content type.

Bar-Ilan (2004) suggested that blogs were more appropriately categorized using content and format as classifiers. Specifically blogs can be categorized in terms of
length (e.g., links only, microblogs, and essay style blogs), level of engagement (monologue/information signpost vs. dialogue/commentary), and by content (associative, self-expressive and personal, or topic oriented/external). Because blogs can vary in content, length, and level of engagement from post to post, it may be difficult to quantify blogs on these three dimensions. While each of these factors could play a role in moderating psychosocial outcomes (e.g., longer personal blogs could have benefits in terms of autotherapeutic expression, and dialogues may be more beneficial in terms of social support), it is simpler as an initial starting point to examine each of these dimensions independently.

2.4 Blogs in Relation to other Online and Offline Media

Attempts have also been made to classify blogging as a media application. Herring et al. (2005) conducted a study which examined the content of 203 blogs in an attempt to describe what bloggers write about, and how blogs relate to other forms of existing online and offline media. Elements that were similar to existing forms of media (e.g., websites, computer-mediated communication technologies, newspapers, personal journals) were described as "reproduced". Features that were new and unique to blogs were described as "emergent". Early blogs were largely simple reproductions of pen and paper journals placed onto websites using coding, but modern blogs have taken on new emergent functionalities unique to internet applications. Thus blogs can also be considered in terms of their similarities to and differences from other media, both online and offline.

Considering existing internet applications, Herring et al. (2005) described blogs as sitting somewhere on a continuum between webpages and computer-mediated communication (i.e., internet applications allowing two or more users to exchange information such as email, chat, etc.). Like personal webpages, blogs allow an author to present their identity using text, pictures, video and music. Personal webpages, however, are generally relatively stable. They are updated less frequently than blogs and often lack the communication focus that can exist between blog authors and readers (via the commenting and trackback features), instead unidirectionally conveying the point of view of the author to an unknown and silent audience. Hence, blogs exhibit characteristics of computer-mediated communication (CMC) applications as some blogs are used to facilitate reciprocal
communication (Coates, 2004; Efimova & de Moor, 2005). Blogs also tend to be high in text-based communication (Herring et al., 2005). They have the potential to combine the best aspects of websites and CMC in allowing an author to communicate with an unlimited audience, like a webpage (Herring et al., 2005), but with more frequent updates and greater ease of use (Trevino, 2005). They also have more multimedia flexibility than normally available in text-based CMC and microblogs/status updates.

Considering other offline media, blogs have similarities to pen and paper journals (Herring et al., 2005) and newspaper columns (Trevino, 2005). McNeill (2003) points out that, as is the case with pen and paper journals, authors can personally reflect on content from their daily lives and their experiences of the greater world around them, and can use their blog as a form of self-expression, recording intimate feelings, thoughts and experiences. However, Stauffer (2002) points out that personal journal blogs differ from pen and paper journals in two important ways: first that pen and paper journals are chronological with the oldest material first (Crowston & Williams, 2000), whereas blogs list their entries in the reverse order so that the emphasis is on highlighting what's newest in an author's life. Second the content of personal journal blogs is intended for public consumption while personal diaries are traditionally private and intended only for the writer's consumption (Herring et al., 2005). The public nature of blog entries is more similar to other forms of publication such as popular newspaper columnists who attract a “readership” (Trevino, 2005). Some researchers herald blogging as a new form of journalism (Glance, Hurst, & Tomokiyo, 2004). While blogs tend to be less formal than newspaper columns in regards to writing style and editorial review (Nowson, in press), they are generally more formal than other forms of computer mediated communication such as message boards (Glance et al., 2004) and than spoken language (Gill, Nowson, & Oberlander, 2009).

While Herring et al. (2005) proposed that blogs stretch across a continuum between the characteristics of static webpages and dynamic asynchronous communication, they did not propose a continuum for blogs ranging between their similarities to offline media such as newspaper columns and pen and paper journals. Including this continuum may be of benefit to conceptualization as it adds the additional dimensions of privacy, formality, and subjectivity. Figure 2.2 presents a diagram displaying the original continuum presented by Herring et al., adapted by
the current author to include a second continuum between the offline media of private pen and paper journals and public newspaper columns. Personal journal blogs as a group are proposed to sit at the junction of this figure, ranging in content from private to public, in style from informal to formal, in expression from subjective to factual, in form from text-only to multimedia enriched, in author/reader exchange from unidirectional to symmetrical, and in frequency of updates from infrequent to constant.

*Figure 2.2. Personal journal blogs as a form of communication.*

Blogs are free of many of the limitations of existing media and are thus also emergent. For example, while blogs may be similar to newspaper columns in terms of publishing professional writings, the immediacy of publication in blogging is unique (Sorapure, 2003). Blogs are easier to produce than websites, can reach large opinionated audiences unheard of in the world of personal diaries (Miura & Yamashita, 2007), can allow individuals to self-publish (Blood, 2002), and in general can expose authors to unprecedented opportunities for personal and professional self-promotion. As blogs sit at the junction of quite incompatible
traditional antecedents, they offer authors new opportunities, but also new risks previously unseen depending on the nature and type of the content displayed and the identifiability of the author (e.g., Herring et al., 2005 found over two thirds of bloggers listed their first or full name, and more than half listed personal information such as age and occupation). As a result, Herring et al. describe blogs as a new hybrid "bridging" genre, partially reproducing existing media and partially unique, emerging media.

2.5 The Blog as Communication Tool

2.5.1 Blogging as a form of Computer Mediated Communication

Blogs can be used to communicate with others in asynchronous dialogue using comments, posts, and trackbacks (Stefanone & Jang, 2008). Indeed, some blog authors appear to be motivated to blog specifically with the intention of providing advice to other bloggers and receiving feedback from other bloggers (Hollengaugh, 2011). Stefanone and Jang (2007) described blogs as a mode of communication, similar to email. Thus blogs can be considered as potential communication tools where users have the ability to engage in dialogue as well as form relationships.

Efimova and de Moor (2005) provided evidence for the blog acting as a form of computer mediated communication, both between individuals and groups. They examined the blog posts and comments of 32 participants in an exploratory study of conversational blogging practices and found blogs were useful tools for facilitating conversation. In addition to commenting, they highlighted the role of multiple types of links which bind different blog authors and readers together such as direct links to other blogs, trackbacks which provide links to related blog posts, and quotes from other users. Efimova and de Moor concluded that blog authors can conduct multiple ongoing conversations on their blog and across other blogs (e.g., continuing a conversation by commenting on another user’s blog) and media (e.g., posting the chat dialogue with another blogger or using email to contact other bloggers).

Because blogs can be used as a form of CMC to foster communication between multiple parties, it may be helpful to consider blogging in terms of a communication model. Saling and Phillips (2010) adapted an information processing model of human to human interaction from earlier ergonomic models by Welford (1968) and Argyle (1967) (see Figure 2.3). In their model each person acts as an information
processing channel, transmitting intended and unintended messages to another person, or persons, who then perceives, interprets, and responds to these messages. Saling and Phillips' (2010) model helps highlight differences between CMC, like can occur through blogging, and FTF communication. In the latter intended messages tend to be verbal messages, and unintended messages are generally conveyed through body language which can be difficult to control. Comparatively, blog posts and comments have the potential to allow individuals considerably more control in reducing or eliminating unintended messages (e.g., they could fake being happy despite being teary), thus in turn allowing them more control in shaping how the other person perceives and responds to their messages. Nevertheless, using only written commentary can also lead to misinterpretations (e.g., 'You idiot!' might be laughed off in a FTF situation but taken seriously in CMC).

Figure 2.3. Saling and Phillips' (2010) information processing model of human to human interaction.

Phillips, Saling, and Blaszczynski (2008) suggested that the choice of communication channel (e.g., FTF conversation, blogging, telephone calls, email, etc.) might be influenced by a number of factors including bloggers' goals and predispositions, their perceived level of discomfort or risk about communicating,
their self-esteem and confidence, their emotional reactivity, and their willingness to self-disclose. Each of these aspects of blogging will be examined throughout the remainder of the literature review (see Chapter 3, p. 34, for motivations; Section 4.2, p. 63, for social discomfort; Section 2.6.3, p. 32, for self-esteem; Section 4.3, p. 81, for emotional reactivity; and Section 2.6.1, p. 26, for self-disclosure), starting in the following two sections with an examination of the role of message intention, perception, and communication cues in a computer-mediated environment.

2.5.2 The Positive Capacities of Computer Mediated Communication

Walther (1996) described the capacity for CMC to be either impersonal, interpersonal, or 'hyperpersonal'. Early online research suggested CMC was impersonal because it showed low levels of affective exchange and tended to be highly task oriented (Dubrovsky, 1985, as cited in Walther, 1996). This problem-solving oriented focus also resulted in more democratic communication compared to FTF life, where individuals of a lower social or organizational status were more likely to participate actively in communication exchanges than if an individual of higher social status was immediately present (Kiesler, Siegel, & McGuire, 1984). In an attempt to describe what aspects of CMC resulted in more democratic communication, decreased visual and auditory presence were highlighted as playing a key role (Walther, 1996). First, CMC involves fewer visual and auditory cues compared to FTF communication. Participants are normally visually anonymous (except when video conferencing) so cues such as appearance, facial expression and body language are lost (i.e., unintended messages in Saling and Phillips (2010) model). Likewise users are normally auditorily anonymous, so cues such as tone of voice or a nervous stutter are also lost. The loss of these social context cues, in combination with the decreased social presence of other participants (e.g., a manager will not be obviously present in online communication), both may contribute to this democratization of communication (Walther, 1996). On the other hand, without visual or auditory cues the capacity for CMC to be used for affective exchange is considered by some to be greatly reduced (Culnan & Markus, 1987, as cited in Walther, 1996).

However, CMC can also be interpersonal whereby users can develop social relationships using text, images, voice clips, and video clips. Walther (1996)
suggested social relationship development using CMC can parallel FTF development, but that CMC relationship development may occur at a slower speed due to the increased effort involved in textually communicating additional information such as social cues. In terms of Saling and Phillips' (2010) model, CMC may take additional time as individuals need to formulate their message, consider any text-based contextual cues they wish to provide, transmit the message, and then interpret the response with fewer unintentional cues to guide their judgment. In short, CMC may be slower that FTF communication as users must take longer to construct communication (typing can be slower than talking) and interpret communication (with reduced cues, communication may take longer to interpret and respond) (Walther, 1996).

Finally, CMC has the potential to be hyperpersonal, where affective expression and social connection can surpass the levels seen in equivalent FTF interactions (Walther, 1995, 1996). There are a number of aspects of CMC that may result in alterations in impression and impression management. First, with reduced cues, deindividuation can occur, as human presence is reduced and communication recipients must use more subtle cues to build a more exaggerated impression of their communication partner (Lea & Spears, 1992). While these exaggerated impressions have the potential to be either positive (Baym, 1995) or negative (Spears, Postmes, Lea, & Wolbert, 2002), if the individuals communicating share a focus, concern, or interest they are more likely to be construed as positive and friendly (Baym, 1995; Walther, 1996).

By the same token, an individual sending communication has the ability to alter impressions by shaping what cues and information they provide (Walther, 1992). In particular Walther (1996) points out that asynchronous CMC allows an individual time to construct their message, and this planning period allows them to actively select how they want to present themselves. Because there is no need to divert attention to other communication channels (e.g., no need to nod, smile, etc.) Walther suggests more attention can be devoted to carefully using language to craft communication messages. Matheson and Zanna (1988) found CMC users displayed higher levels of self-awareness than FTF communicators which, paired with reduced-time pressure, provides an opportunity to create more thoughtfully constructed, focused and planned messages.
Further, without visual or auditory cues the ability to use language to shape a person's impressions can help reduce perceived hierarchies or recipient biases due to factors such as age, gender, race, and sexual orientation (Boase & Wellman, 2006). In this sense, CMC can again be a great equalizer. Indeed research where users rated the physical, social, and attitude attractiveness of communication partners in FTF, video or audio-conferencing conditions found that the users in the visually anonymous audio-conferencing condition received the highest ratings (Chilcoat & DeWine, 1985). Reduced visual and auditory cues and visual anonymity may thus stimulate attraction and relationship formation (Walther, Slovacek, & Tidwell, 2001).

Finally, Walther (1996) pointed out that CMC, and particularly asynchronous CMC, has the potential to create positive communication feedback loops. Where one party views the other in a positive light they alter their communication towards that party to idealize them, and in turn the recipient tends to fulfill the idealized expectation by communicating in a more socially desirable way (Snyder, Tanke, & Berscheid, 1977, as cited in Walther, 1996). In reduced-cue environments this idealization can be intensified, leading to potentially rapid, intense, intimate conversations (Walther, 1996). Thus CMC provides an opportunity for communication partners to converse in a more socially desirable manner, and through idealization and reciprocal feedback loops confirm the positive attributes of each communication partner (Walther, 1996).

In summary, CMC has the potential to lead to enhanced communication. This can occur through decreased visual and auditory barriers resulting in decreased bias. More control over self-presentation, reduced unintended messages, and the opportunity to plan communication can help foster positive impression formation. Where individuals share similar interests or viewpoints, CMC may amplify positive impression formation with communication partners through assuming positive attributes about each other in the absence of cues suggesting otherwise. This propensity to project socially desirable characteristics onto other communication parties and to interact using positive feedback loops creates idealized impressions of communication partners, potentially leading to socially rich exchanges. For some, FTF exchanges with the same degree of richness may be difficult to establish.
2.5.3 The Negative Capacities of Computer Mediated Communication

While visual and auditory anonymity have the potential to create positive social impressions of communication partners, depersonalization can also lead to negative impression formation (Spears et al., 2002), which in turn can facilitate victimization. Flaming, that is, hostile interactions between internet users, can occur when individuals react more strongly in their CMC than they would in FTF communication (Kiesler et al., 1984). A lack of cues combined with a democratized communication setting and decreased social presence may have further effects in terms of a lack of awareness of consequences for inappropriate behaviors (Suler, 2004; Walther, 1996). While in FTF social interactions individuals typically gauge the reactions of other individuals and continually adjust their behavior accordingly, with mediated communication technology many of these behavioral reactions are not observed or effectively conveyed and this in turn may facilitate the escalation of inappropriate behaviors such as excessive teasing or bullying (Postmes, Spears, & Lea, 1998). On top of this, the reduced or ambiguous cues present in some CMC leave this form of communication open to interpretation by the reader as hostile or threatening even if this communication tone was not intended (McKenna & Bargh, 2000).

Early researchers of computer-mediated communication considered the implications of communication stripped of physical and social cues. In the cues-filtered-out theory Kiesler, Siegel, and McGuire (1984) suggested a lack of feedback could result in aggressive, impulsive and inappropriate behavior without perceived consequences. Consequently behaviors such as cyberbullying may emerge, in part due to the psychological and physical disconnection between an offender and a victim over the internet, with the offender unaware of the severity of the effects of their actions (Dehue, Bolman, & Völlink, 2008). In terms of Saling and Phillips' (2010) model, unintended messages such as crying may not be experienced by the bully, allowing the feedback loop to continue and intensify. Alternatively, an individual may engage in bullying online with the intention of eliciting FTF effects in future interactions. Thus it is possible in both blogs and social network settings that individuals may make negative or hurtful comments without realizing the potential to cause harm, or without witnessing the effects of their actions. Alternatively individuals may choose to make negative or hostile comments due to
an online disinhibition effect, which can result from a combination of factors including a lack of online authority figures, anonymity, invisibility, and the presence or absence of adjustive feedback loops (Suler, 2004).

Finally, negative interpersonal interactions conducted on the internet can have implications for both the perpetrators and victims in terms of audience and permanence. When hostile FTF interactions occur they are generally witnessed by a limited sample of people, whereas on the internet potentially millions of people can observe (e.g., Tricia Walsh Smith's divorce video which received nearly 4 million views on YouTube). As a result, dimensions of distress may be amplified by the magnitude of observability. Further, while FTF events are often transient in duration and thus may have more transient implications in terms of negative outcomes, some internet posts are effectively permanent, and in turn their psychological effects can be enduring. Negative interactions on the internet may not be easily forgotten or forgiven.

2.6 Blogging and Identity Management

In the previous section the potential for CMC, including blogs, to lead to either positive or negative outcomes was described. In this section, the use of blogs to facilitate positive outcomes through blogger manipulation of their communication is discussed. Bloggers can alter their messages through variations in disclosure and self-presentation, and responses to blogs can in turn influence how others perceive a blogger.

2.6.1 Disclosure

The internet, with its capacity to allow a user to remain partially or wholly anonymous, also has the ability to enhance online self-disclosure (McKenna & Bargh, 2000). The internet can create an environment where deindividuation occurs (Lea & Spears, 1992) and social presence is reduced (Walther, 1996), and thus a more democratized environment ensues. Suler (2004) suggests that the internet amplifies disinhibited behavior, so that users may say and do things that they normally would not do in FTF life. For example, people have a preference to use CMC to tell both self-serving lies and harsh truths when compared to telephone and
FTF communication options (Whitty & Carville, 2008). Combined with partial anonymity, the disinhibited online environment can enhance online self-disclosure, which can have the effect of augmenting the development of intimate relationships (McKenna & Bargh, 2000). Atheunis, Valkenburg, and Peter (2007) conducted a study where participants communicated in text only CMC, visual CMC and FTF communication conditions. They found individuals using text-only computer-mediated communication asked conversation partners more direct questions, self disclosed more to partners, and consequently this increased interpersonal attraction when compared to FTF communication.

The Uncertainty Reduction Theory (URT) has been used to explain online self-disclosure. The URT attempts to describe and predict relationship formation through a communicator’s use of disclosure as a tool for becoming more familiar with and determining whether they like or dislike another (Berger & Calabrese, 1975). Walther, Slovacek, and Tidwell (2001) suggested that individuals have a further incentive to disclose online for uncertainty reduction, as many of the observational cues present in FTF interactions are absent online (e.g., unintended messages such as a smile or laugh), and thus opportunities for feedback and validation may be reduced. Communication partners may find this increased need interpersonal uncertainty uncomfortable, and in turn act to reduce their uncertainty through increased conversation, disclosure, and observation (Berger & Bradac, 1982).

While uncertainty reduction may play a role in online disclosure, many internet users choose public means of communicating even when private modes exist. Websites such as Facebook and MySpace contain private email options, but most users choose to exchange messages on public walls or message sections (Boyd, 2008). Kawaura, Yamashita, and Kawakami (1999, as cited in Miura & Yamashita, 2007) found that self-disclosure was a major motivation for bloggers. Many bloggers cross-comment on each other’s blogs creating not only public commentary but cross-promotion. Bloggers often think about others when they write and respond to entries (Miura & Yamashita, 2007), suggesting levels of disclosure are to some extent controlled. As a result, online disclosure can be used to benefit the author (e.g., promotion) and can help an author shape the impressions of other internet users, as discussed in the following section.
Familiarity may also be a factor in disclosure, with bloggers who self-disclose more likely to maintain blogs that support existing social networks (Stefanone & Jang, 2008). More disclosive bloggers are more likely to use their blogs exhibitionistically and to blog for social connection (Hollengaugh, 2011), and it appears that this disclosure in turn often results in promoting even larger social networks (Stefanone & Jang, 2008). However, the type of information disclosed in a blog may vary depending on the type of audience. Qian and Scott (2007) found that bloggers were more likely to self-disclose both inner feelings and feelings towards other people in their social networks when their blog audience consisted of more strangers. Thus social disclosures may be more restrained in environments where comments could affect aspects of FTF socialization (McKenna, Green, & Gleason, 2002).

Lee, Im and Taylor (2008) proposed seven motivations which could affect disclosure; these were self-presentation, relationship management, keeping up with trends, information sharing, information storage, entertainment, and showing off. Using a sample of 259 Korean university students they found all of these motives were significant predictors of self-disclosure as measured by a 23 item self-disclosure scale created by the authors. Information sharing, storage, and entertainment were less influential in predicting self-disclosure, as expected. Higher scores on their disclosure measure in turn predicted psychosocial well-being as measured by items assessing relationships, psychological well-being, and habitual behavior. While this study was limited by the lack of established reliable measures (e.g., three vague items as a measure of psychological well-being), the idea that self-disclosure can be used intentionally and strategically by bloggers to improve interpersonal relationships and well-being, and to manage their identity, seems reasonable in light of other research. Psychosocial aspects of blogging are discussed in more detail in Chapter 4 (p. 61).

### 2.6.2 Self-presentation and Identity Management

Goffman (1959) described self-presentation as an ongoing process of 'information management', a type of performance whereby one shows one's self to others. Self-disclosure, discussed above, is only one element of self-presentation. In FTF life, appearance is probably the key element of self-presentation, at least initially. Multi-
billion dollar industries are built on individuals striving to improve their appearance and personal attractiveness (Dominick, 1999). The internet provides users with a greater capacity and number of opportunities to manipulate identity or image than FTF interactions (Bargh, MeKenna, & Fitzsimons, 2002; Papacharissi, 2002; Wallace, 2001) because appearance can be sidestepped or manipulated more readily and affordably than in the 'real' world. As a result, an individual’s online and offline personas may vary in anonymous contexts such as chat-rooms (Suler, 2004) and more identifiable contexts such as social networking sites (Zhao, Grasmuck, & Martin, 2008).

In creating and maintaining a homepage or blog, the author has considerable control over how they present themselves, both descriptively and visually (Dominick, 1999; Doring, 2002). Bloggers choose what to write about, how to describe themselves, and ultimately what comments others can leave on their post. In this way bloggers can influence their audience's perception. Their identity can be manipulated and shaped. In turn, positive and negative feedback from readers and other bloggers can help shape and reinforce the blogger’s identity (Jacobs, 2003; Serfaty, 2004).

As in 'real' life, not all aspects of self-presentation in a blog are planned or conscious. Herring (2000) points out that offline social rituals or characteristics frequently appear in online discourse, including stereotypical gendered behaviors. Offline, gender role research suggests males are taught to take action, act independently of the opinions of others, and show more so-called 'masculine' instrumental traits such as self-confidence, fearlessness and aggression, while females are socialized to communicate, seek social approval, and express more emotional traits such as friendliness and fear (Boudreau, 1986; Ginsburg & Silverman, 2000; Weitz, 1977). Similarly, some internet research has suggested that females generally put more effort into appearing "friendly" and males into appearing "confident" (Miller & Arnold, 2000), with females were more likely to express emotions using emoticons than males, particularly in same-gender communications (Witmer & Katzman, 1997; Wolf, 2000).

The use of emoticons to express emotions in blogs can be quite high, with nearly two thirds of bloggers using them in Huffaker and Calvert's (2005) study. The purpose of emoticons in blogs could be two-fold. First, they can be used simply as forms of emotional expression, a purpose several authors have suggested may be
primary to blogging (Baker & Moore, 2008a, 2008b; Fullwood, Sheehan, & Nicholls, 2009; Nardi et al., 2004). Secondly, emoticons can be used as linguistic softeners, ways for an author to communicate nonverbal cues using written text (Fullwood & Martino, 2007). This type of usage suggests that unintentional FTF communication channels in Saling and Phillips' (2010) communication model can often be intentionally expressed by the communicator in blogs.

Sense of security and the need for validation also play a role in self-disclosure and identity management. A study of information management for MySpace users found that males were significantly less likely than females to mention their partners on their webpage (Magnuson & Dundes, 2008). The authors suggested that this again is largely due to women falling into traditional gender roles which require them to rely on others for a sense of self-identity and self-esteem, while it has been argued that males consider relationships separate and in addition to their core identity. Younger bloggers are more likely to actively request feedback from readers (Fullwood et al., 2009). Fullwood et al. suggested that this may be due to young adults feeling less secure in their identities leading them to elicit, and conform more to, outside cues when forming their online identities.

With CMC most communication is through written text. Thus internet users, and bloggers in particular, must use linguistic and stylistic choices to influence the way readers view them (Herring, 2000). Because bloggers rely heavily on linguistic choices for impression management, Huffaker and Calvert (2005) suggested that examining blogs in terms of language may be useful for determining the personal attributes and impression management strategies of the authors. For example a young teenage male blogger may choose to casually recount stories of drunken encounters using informal language laden with swear words so as to portray himself as experienced or rebellious. If this same blogger is a top student with an excellent reputation inside school, he may use his blog to alter the impressions of classmates both online and offline, and thus use his blog as a tool for identity management (Schmidt, 2007). Likewise a blogger can use links to external websites (e.g., http://savetheearth.org/ compared to http://torture.com) to contribute to identity formation or management (Fullwood et al., 2009), and further manage their identity through ensuing discussions using the comment feature on their blog.

The majority of blogs exhibit a positive tone both in terms of content (Fullwood et al., 2009), emoticons (Fullwood et al., 2009; Huffaker & Calvert, 2005), and
feedback (Trevino, 2005), suggesting positive self-presentation may be a major factor in terms of impression management in blogging authorship and readership. Positive self-presentation is more likely where a blog is being used to fulfill a social function (e.g., I am a good friend) rather than an emotional one (e.g., I am depressed). Fullwood (2009) suggested that some bloggers may modify their written expression to display positive attributes to other users such as friendliness and sociability. In one sense this suggests that users may be able to utilize their media to alter other people's perceptions of their personality such as level of agreeableness or extraversion.

However, while some bloggers, particularly younger authors, may try to invent or fake aspects of their identity (Huffaker & Calvert, 2005), most research suggests that bloggers present an accurate representation of themselves (Fullwood et al., 2009). Indeed many bloggers disclose personal and identifiable information such as their name, age, occupation and location (Herring et al., 2005). Some bloggers provide information about their sexuality and romantic experiences (Huffaker & Calvert, 2005), while others detail their work experiences and professional difficulties. Linguistic analysis suggests that blogs accurately reflect the personality influences on the author, whereby bloggers present themselves in a way that is congruent with their offline persona despite having the ability to alter their online identity (Gill et al., 2009). Using a sample of 2393 bloggers, Gill et al. (2009) used the Linguistic Inquiry and Word Count (LIWC) text analysis tool to compare participants' personality scores with the linguistic content of their blogs. While the personality measure utilized was not a robust or well-established device, the study suggested that linguistic behavior mirrored the predicted behavior based on personality type and behavior in other media. However, as with much research on personality the effect size was small, suggesting limited conclusions can be drawn. Still, despite bloggers having the ability to present themselves differently on their blog, they appear to largely present themselves in a manner consistent with the FTF persona.
2.6.3 Self-esteem and Self-efficacy

The ability to create and test one’s identity and abilities can have benefits in terms of increased self-esteem and self-efficacy. In part this may be due to decreased social pressures on the internet allowing people to act in a way more congruent with their values, beliefs, and self-image. Using a small sample of 41 university students (and an extensive 5 hour long battery of psychological tests) Engelberg and Sjöberg (2004) found that individuals low in self-esteem displayed higher amounts of internet usage. With a more robust university sample of 306 participants, Joinson (2004) also found that individuals low in self-esteem as measured by Rosenberg's (1965) Self-Esteem Scale were more likely to choose computer-mediated communication options over FTF communication. Where scenarios involved a high risk of rejection the affinity for CMC was amplified. Thus the internet may be seen by some users as a safer platform from which to test their identity and communicate than other media in FTF life. Chapter 4 (p. 61) considers other aspects of psychosocial well-being such as anxiety and social anxiety which may also relate to fear of rejection and safety concerns.

McKenna et al. (2000) pointed out that the internet can allow individuals to change their self-image and build self-confidence through utilizing new social networks to obtain external validation, an issue also discussed further in Chapter 4 (p. 61). This validation in turn can help grow confidence in new abilities and roles. Changing one's image in FTF life can be more difficult, as people may meet with more resistance when attempting to define and redefine themselves. Online it may be easier to find social connections who do not have pre-existing expectations.

Through networking (Harris, 2004), audiences of peers can respond to blog content and provide feedback (Nardi et al., 2004), and thus both the readers and the author have a role in what content is revealed in the entries. Indeed many blog authors write blog entries with their readers in mind (Fullwood et al., 2009). The effect of blogging on self-esteem was investigated by Leung (2009), who found that creating blog content had a small but significant effect on psychological empowerment, with more engaged bloggers scoring higher on self-efficacy. Leung's sample was obtained through a telephone survey with an impressive 78% response rate, and contained 626 internet users with a mean age of 24.75 years (SD=10.77). Likewise research suggests that online social networking can result in increased
self-efficacy and sociability (Ando & Sakamoto, 2008; Tidwell & Walther, 2002), although these areas are currently undergoing further research.

2.7 Summary

This chapter has described the content and function of blogs and examined methods of classifying blogs. In particular, the potential use of blogs for communication, identity management, and self-disclosure were introduced. Studies examining the personal characteristics or psychosocial outcomes of bloggers have largely classified blogs in simple terms as being personal or topical. Because a large number of blogs vary in content and topic from post to post (i.e., mixed blogs) (Herring et al., 2005), there is a need to develop a new method of classifying blogs which better quantifies blogs in terms of their content, particularly for mixed blogs. Thus one aim of the present thesis was to create a more inclusive method of classifying blogs where content is mixed between personal and topical (see Chapter 8, p. 199).

The present chapter also discussed how blogs relate to other forms of media such as SNSs in terms of content and functionality. While blogs have some similarities to SNSs, and oftentimes exist within SNSs, boyd [sic] and Ellison (2008) pointed out that bloggers appear to have more diffuse interests and motives than SNS users, and Hollengaugh (2011) highlighted a gap in the literature comparing the motivations of SNS users and bloggers. An aim of the present thesis was to examine the motivations of both bloggers and SNS users, and an important research question was how do the motivations of bloggers compare to those of social networker users? The following chapter examines some of the potential motivations of bloggers in more detail, and Studies 1 (Chapters 60, p. 107) and 2 (Chapter 7, p. 150) of the current thesis examine the motivations of bloggers from a qualitative and quantitative perspective.
3 Why Do People Blog? A Review of Literature on Bloggers' Motivations

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3.3 Summary.........................................................................................................................................60
3.1 Overview

The dispositional characteristics of a blogger may lead to differing psychosocial outcomes. In particular, the motivations of an author may moderate the relationship between blogging and social and emotional well-being by altering usage of the medium. For example, motivations may alter the content of the blog or the level of engagement with the audience. Bloggers who write passionately about their political views and experiences campaigning for a candidate, may have different emotional consequences from bloggers motivated by a desire to vent and express negative emotions or to form new social connections. The following chapter describes some of the psychosocial uses and gratifications of blogging in terms of cognitive, affective, social integrative, personal integrative, tension reduction, and generativity needs. While there has been a significant volume of research on the motivations for personal journal blogging, few efforts have been made to consolidate this data in a meaningful way (Hollengaugh, 2011). The motivations for personal journal blogging are of interest in predicting blogging behavior, understanding how bloggers use their blogs, and understanding the mechanisms through which blogs may influence psychosocial changes in the well-being of their authors (Baker & Moore, 2008a, 2008b).
3.2 Blogging Motivations

3.2.1 Uses and Gratifications Framework (U&G)

The Uses and Gratifications Framework (U&G; Katz, Blumler, & Gurevitch, 1974) is a communications theory which describes some of the factors involved in the consumption of media. U&G examines how an individual uses a communication medium and why they use it (Hollengaugh, 2011). Underlying this theory is the assumption that people will select the medium which fulfills the most needs when given a choice of media options from which to select (Yale, 2007), and thus U&G is largely used to describe why people choose to use a specific type of medium.

U&G examines media and communication from a functional perspective, considering how people meet their psychological and social needs through using the media form (Rubin, 2002). While the U&G perspective has its origins in the 1940's with early examinations of the gratifications provided by passively consumed forms of media such as radio broadcasts and newspapers, the U&G Theory was not fully formalized until 1974 by Katz, Blumler, and Gurevitch. Katz et al. amalgamated the perspectives of a number of researchers and summarized media consumption as resulting from "(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) differential patterns of media exposure (or engagement in other activities), resulting in (6) need gratifications and (7) other consequences, perhaps mostly unintended ones (p.37)." Rubin and Bantz (1989, p. 182) later presented this model in a simplified five factor form; media consumption is influenced by an individual's social environment and psychological composition, their needs and motives, their functional alternatives, their behavior, and the consequences of their behavior.

The areas of needs and gratifications described in U&G literature tend to be broad and cover the major psychosocial domains. Katz, Gurevitch, and Haas (1973) identified five major domains of needs; cognitive needs involve gaining insight, knowledge and understanding, affective needs involve emotional changes or pleasure, personal integrative needs involve increasing status and credibility, social integrative needs involve interactions with family and friends, and tension release needs involve elements of distraction and escape. McQuail (1983) identified similar needs and gratifications but notably combined affective needs into each of these
classifications. These needs were information needs which aligned closely with Katz et al.'s (1973) cognitive needs but also included the idea of gaining emotional security through increased knowledge; personal identity needs which involve reinforcing personal values and gaining self-insight; integration and social interaction needs which were similar to Katz et al.'s (1973) social integrative needs but also involve understanding others (empathy) and gaining a sense of belonging; and entertainment needs which include the distraction and escape aspects of tension release needs but also include emotional dimensions such as sexual arousal, aesthetic enjoyment and catharsis.

The U&G framework is particularly well-suited to psychological enquiries into communication-related behavior as it has the capacity to take into account individual psychological attributes, motivations, social and cultural influences, type and level of exposure to social media, and intended and unintended psycho-social reinforcers. Because a core component of the U&G framework revolves around the role of psychological attributes and motivational factors (Katz et al., 1974; Rubin, 2002), U&G can be integrated with other psychological theories and frameworks. For example, LaRose and Eastin (2004) pointed out that U&G can be understood in terms of Bandura's Social Cognitive Theory (SCT) whereby the needs in U&G can be considered behavioral incentives, and the gratifications in U&G expected outcomes. In this light, an individual's choice to use internet technologies can be shaped by their expectations, their experiences, and through vicarious learning based on the observed experiences of others. Examples of SCT motivations include monetary compensation (McCullagh, 2008; Song, Larose, Eastin, & Lin, 2004) and convenience (Papacharissi & Rubin, 2000). Wang and Lin (2009) point out that perceived enjoyment has been used in numerous studies to attempt to predict behavior and it may be helpful to view blogging behavior in light of this factor. Perceived enjoyment could serve as an internal (intrinsic) motivator to begin blogging (see Davis, Bagozzi, & Warshaw, 1992), whereby the blog author blogs because they expect to derive enjoyment from utilizing the medium.

The U&G framework can be used with considerable flexibility in internet research in general, and blog research in particular, as researchers have the option of supplementing this model with additional psychological theories and frameworks. While one researcher may prefer to study what needs may be met by utilizing a form of media (Katz et al., 1974), others may choose to examine the sociological or
psychological factors contributing to media exposure or expectations (Rubin, 2002). As well, a researcher can take into account other characteristics such as gender and age in attempting to describe from where needs and motivations may arise (Hollengaugh, 2011).

3.2.2  U&G and Internet Usage

The U&G framework has been used extensively in describing internet usage (Rubin, 2002; Ruggiero, 2000; Song et al., 2004). Ruggiero (2000) suggests that U&G is more applicable to internet usage than for the media forms it originally described such as radio and television, because internet usage frequently involves active engagement, choosing technology platforms, and communicating with others, while radio and television activity is largely more passive and the user has considerably less control over content. Because the internet requires more active participation, Eighmey (1997) points out that internet users are often more aware of what motivates their choices and what needs they are gratifying.

Internet research using the U&G framework has largely retained the original needs and gratifications described by Katz et al. (1973) and McQuail (1983), although recent research has further divided these categorizations suggesting some might be multidimensional. Lin (1999) for example describes relaxation, passing time, arousal (as opposed to boredom), entertainment and escape separately rather than including them all as part of entertainment or tension release needs. Papacharissi and Rubin (2000) identified passing time and entertainment as separate gratifications. Similarly Lin (1999) also separated out companionship and social interaction from the overarching social integrative needs, while Eighmey and McCord (1998) identified personal involvement and continuing relationships as motivations. Song et al. (2004) identified virtual community and relationship maintenance. LaRose and Eastin (2004) found habit, while traditionally included in entertainment gratifications, was a significant predictor of media exposure on its own and concluded it is a distinct motivational construct.

Interestingly the gratification described as information/surveillance has largely been left intact in internet research (LaRose & Eastin, 2004; Lin, 1999; Papacharissi & Rubin, 2000; Song et al., 2004). This is notable because the most common reason for internet usage identified in the literature has involved information/surveillance
motivations (Lin, 2001; Papacharissi & Rubin, 2000). While the internet shares common gratifications with television such as entertainment, passing time, escaping, relaxing, and gathering social information (Ferguson & Perse, 2000), these motivations are often secondary to information gathering (James, Wotring, & Forrest, 1995) and socializing (Eighmey & McCord, 1998; James et al., 1995; Papacharissi & Rubin, 2000; Song et al., 2004).

### 3.2.3 U&G and Blogging

Several researchers have recently pointed out the suitability of the U&G framework for examining the motivations and behaviors of bloggers (Hollengaugh, 2011; Jung et al., 2007; Wang & Lin, 2009). In terms of blogging behavior U&G is of interest both in terms of the blog audience (consumers of blogs) and the blog author, who both creates and consumes media. Blog readers' motivations tend to be described more in line with traditional internet research, whereby internet users actively seek out and engage in material for their own gratification, passively consuming internet content (Eighmey & McCord, 1998). This type of media usage falls in line with early research which considered U&G exclusively from a consumer perspective. However blogs provides authors with an opportunity to both produce and consume media. Blog authors can actively choose what content to research, what content to produce, and what other blogs to read, and thus a blogger's behavior is goal-oriented and affected by individual characteristics (Rosengren, 1974). Further a blog can serve as a link between the producer and the consumer of the content, facilitating interpersonal communication (Kaye, 2005). The ability of the U&G framework to describe the motivations of audience activity, active interpersonal communications (Newhagen & Rafaeli, 1996), and production activity makes it particularly well suited to examining blogging behavior and consumption. Because of the addition of production needs not present in much of the early U&G research on internet usage, Hollengaugh (2011) suggests it may be useful to consider blogging research separately.

While a number of researchers have examined various potential blogging motivations, research to date has largely lacked the presence of a cohesive theoretical model. One possible explanation for this notable absence is that existing U&G models were created to capture variables associated with passive media.
consumption, and as a result many may lack the depth required to describe blogging
uses and gratifications in terms of communication and production. Nevertheless, an
important benefit of using U&G categorizations to examine motivations is that in
most models they encompass the major psychosocial domains.

In the sections to follow I have attempted to categorize blogging motivations
from a U&G perspective using Katz et al.'s (1973) original model as a starting point,
with the recognition that this model had some limitations. Although criticisms have
been leveled at Katz et al.'s model regarding overlaps between categories of needs, it
was selected over McQuail's (1983) more recent model as it separates affective
needs from information/cognitive, social integrative, personal integrative/identity,
and entertainment/tension release needs. As emotional features are often mentioned
in blog research, this model was considered superior. The issue of potential overlap
will be examined statistically in the current study.

However, the motivations in Katz et al.'s (1973) model needed to be extended to
encompass the production and social interaction aspects of blogging. Also, because
a number of blogging studies described helping others and sharing information and
resources as important motivations (Bar-Ilan, 2005; Chung & Kim, 2008; Dvorak,
2002; Ekdale, Namkoong, Fung, & Perlmutter, 2010; Hollengaugh, 2011; Hsu &
Lin, 2008), an additional need, 'generativity', was also created to describe
philanthropic motivations based on Erikson's (1968) psychosocial stage where a key
feature is doing socially-valued work to guide and support others (see Section
3.2.3.6, p. 58, for more detail). Thus, an expanded model was created for the
current project as a basis for developing a blogging motivations measure in Study 2.
This model is broadly presented in Table 3.1.
Table 3.1
Original U&G Classification Proposed by Katz et al. (1973) with Expanded Descriptors to Account for Advances in Technology and Production Motivations

<table>
<thead>
<tr>
<th><strong>Original Model (Katz. et al, 1973)</strong></th>
<th><strong>Expanded Model</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U&amp;G Category</strong></td>
<td><strong>Descriptors</strong></td>
</tr>
<tr>
<td>Cognitive Needs</td>
<td>Gaining insight; Acquiring information and knowledge</td>
</tr>
<tr>
<td>Affective Needs</td>
<td>Emotional changes; Pleasure seeking</td>
</tr>
<tr>
<td>Social Integrative Needs</td>
<td>Strengthening contact with family, friends, others</td>
</tr>
<tr>
<td>Personal Integrative Needs</td>
<td>Status; Credibility; Confidence</td>
</tr>
<tr>
<td>Tension Release Needs</td>
<td>Distraction; Escape</td>
</tr>
<tr>
<td>Generativity Needs*</td>
<td></td>
</tr>
</tbody>
</table>

*Not included in Katz et al.’s (1973) original model
Sections 3.2.3.1 through 3.2.3.6, to follow, describe in greater detail the specific types of needs described in the blog literature. Each of the broad needs identified in Table 3.1 is expanded into its subcategories.

3.2.3.1 Cognitive Needs

A number of cognitive needs potentially satisfied by blog technologies are described in the literature. These needs include organizing and refining thoughts, archiving and documenting experiences, developing insight, problem solving, creative expression, and knowledge acquisition and exchange. Some cognitive needs such as writing and archiving can be fulfilled without an audience (although this is not always the case), whereas exchanging information and engaging with others required peer interaction. Table 3.2 lists the major cognitive needs satisfied by blogging with references to studies of each need. Each need is then discussed in turn.
### Table 3.2. Potential Cognitive Needs Satisfied by Blogging Described in the Blogging Literature.

<table>
<thead>
<tr>
<th>Need</th>
<th>Studies</th>
</tr>
</thead>
</table>
| Organize thoughts; Refine thinking; Insight and growth | Doctorow, 2002  
|                                          | Turgeon, 2004  
|                                          | Nardi et al., 2004  
|                                          | Miura and Yamashita, 2007  
|                                          | Leung, 2009  
|                                          | Ekdale et al., 2010 |
| Documenting experiences; Archiving; Diarizing | Nardi et al., 2004  
|                                          | Lee, Im & Taylor, 2008  
|                                          | Fullwood et al., 2009  
|                                          | Hollengaugh, 2011 |
| Knowledge acquisition; Skill acquisition; Information search | Graham, 1999  
|                                          | Turgeon, 2004  
|                                          | Kaye, 2005  
|                                          | Huang, Chou & Lin, 2008  
|                                          | Chung & Kim, 2008  
|                                          | Hsu & Lin, 2008  
|                                          | Lee, Im & Taylor, 2008  
|                                          | Leung, 2009 |
| Cognitive engagement with others; Exchanging information with others; Problem solving | Graham, 1999  
|                                          | Cohn et al., 2004  
|                                          | Kaye, 2005  
|                                          | Chung & Kim, 2008  
|                                          | Hollengaugh, 2011 |

**Organize thoughts; Refine thinking; Insight and growth**

The motivation to organize and refine thoughts was reported early in the literature by Doctorow (2002) who described his blog as his outboard brain. He described how writing things down allowed him to keep records and document important information, to organize and sort through it, and using it to reflect on his experiences and to refine his thinking. Subsequently Leung (2009) reported that refining one's thinking was an important cognitive motive for citizen journalists, Fullwood (2009) described the diary features of documenting experiences and archiving as major motivations for personal journal blogging, and Ekdale et al. (2010) suggested that
blogs may be helpful in both formulating and keeping track of ideas. Most recently Hollengaugh (2011) undertook a study into the motivations of 299 English-speaking personal journal bloggers and conducted an exploratory factor analysis of 56 potential items. One of the seven motives emerging from the data was 'archiving / organizing' where users kept records of thoughts, feelings and experiences. Bloggers reported high scores on this motivation.

**Documenting experiences; Archiving; Diarizing**
The desire to document experiences, organize thoughts and refine thinking are also motives that repeatedly appear in the literature. Nardi et al. (2004), who conducted an ethnographic investigation into the motivations of 23 Stanford University bloggers arrived at a list of 5 main encouragers. These researchers described a blog as enabling its author to both document their life experiences and to form and reflect on their ideas. More recently, Lee, Im, and Taylor (2008) also identified keeping records, memories and thoughts as a motivation.

**Knowledge acquisition; Skill acquisition; Information search**
Leung (2009) described increasing knowledge as a cognitive need of online content producers, and both Huang, Chou and Lin (2008) and Chung and Kim (2008) cited searching for information as major motivation for reading blogs. When producing, Leung proposed bloggers are often forced to learn new information both in the process of creating content and reading other blogs. Graham (1999) pointed out there are numerous opportunities to learn new skills and knowledge through blogging, from learning to operate new software platforms and learning coding, to researching content for blog entries. In consuming, blog users are able to access a plethora of information that can extend a person's knowledge and experiences (Turgeon, 2004). Graham (1999), for example, describes his capacity to guiltlessly trawl the web exploring and expanding his knowledge in order to find content for his blog. He sees this as a major benefit of blogging. As bloggers can connect with other individuals with divergent and unique interests, blogs can help develop bridging social capital (Williams, 2007), and expand a user's worldview. Information seeking can be easier with blogs than with other media (Kaye, 2005).
Cognitive engagement with others; Exchanging information; Problem solving

With blogs, knowledge acquisition and learning do not need to be unidirectional. Unlike other information sources where users merely access information, commenting and interactive feedback can create a reciprocal learning environment. Blogs can allow users to quickly and conveniently find the information they are looking for, and if they cannot find it they can ask others (Kaye, 2005). Hsu and Lin (2008) found that this perceived ease of use for information seeking positively influences users' attitudes towards their blogs. The desire to exchange information with others and to engage with others in discussion both contribute to an interactive learning environment. Turgeon (2004) points out that a major benefit of a blog is that it is not a filtered source of information, but rather a resource where you can access the direct experiences of authors and elicit further information as required. The types of information shared can include opinions (Lee et al., 2008), knowledge, or experiences (Hollengaugh, 2011).

Active cognitive engagement with others and problem solving can occur through blogging. Chung and Kim (2008) found blogs allowed cancer patients to exchange information with each other that could be personal (i.e., experiences) or technical (i.e., facts) in nature. Users could assist each other in problem solving and offer direct advice and guidance. Emotionally charged situations or events appear to increase the amount of cognitive engagement (Cohn, Mehl, & Pennebaker, 2004). Many bloggers appear to like to be heard and viewed as a knowledgeable source of information, and enjoy sharing information with others (Hollengaugh, 2011). Similarly, Barr-Illan (2005) described the primary motivation of many bloggers as being to "disseminate information and to express their opinions related to the disseminated information" (p. 305).

3.2.3.2 Affective Needs

A number of affective needs have been described in the literature. These needs include expressing negative affect and venting, expressing general emotions, managing emotions, exchanging emotions with others, and seeking pleasure. Table 3.3 lists the major affective needs satisfied by blogging with references to studies of each need. Each need is then discussed in turn.
Table 3.3.
*Potential Affective Needs Satisfied Described in the Blogging Literature*

<table>
<thead>
<tr>
<th>Need</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pleasure</td>
<td>Olcoń, 2003</td>
</tr>
<tr>
<td></td>
<td>Kaye, 2005</td>
</tr>
<tr>
<td></td>
<td>Hsu &amp; Lin, 2008</td>
</tr>
<tr>
<td></td>
<td>Lee, Im &amp; Taylor, 2008</td>
</tr>
<tr>
<td></td>
<td>Wang &amp; Lin, 2009</td>
</tr>
<tr>
<td>Emotive &amp; Auto-therapeutic Expression</td>
<td>Dvorak, 2002</td>
</tr>
<tr>
<td></td>
<td>Cyqinska-Milonas, 2003</td>
</tr>
<tr>
<td></td>
<td>Olcoń, 2003</td>
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<tr>
<td></td>
<td>Cohn et al., 2004</td>
</tr>
<tr>
<td></td>
<td>Nardi et al., 2004</td>
</tr>
<tr>
<td></td>
<td>Fullwood et al., 2009</td>
</tr>
<tr>
<td></td>
<td>Ekdale et al., 2010</td>
</tr>
<tr>
<td>Exchanging emotions with others; Emotional support</td>
<td>Nardi et al., 2004</td>
</tr>
<tr>
<td></td>
<td>Turgeon, 2004</td>
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<tr>
<td></td>
<td>Chung &amp; Kim, 2008</td>
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<tr>
<td></td>
<td>Huang, Chou &amp; Lin, 2008</td>
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<td></td>
<td>Leung, 2009</td>
</tr>
</tbody>
</table>

*Pleasure*

Some bloggers appear to be motivated by the opportunity for positive affect and pleasure. Blogs provide some users with considerable enjoyment, with Kaye (2005) describing social exchanges with like-minded peers as 'outright exciting'. Indeed, Olcoń (2003, as cited in Trammell, Tarkowski, Hofmokl, & Sapp, 2006) and Lee, Im and Taylor (2008) suggested deriving pleasure is one of the main functions that blog authorship fulfills. Perceived enjoyment has been used in numerous studies to attempt to predict behavior and it therefore it appears helpful to view blogging behavior in light of this factor (Wang & Lin, 2009). Wang and Lin (2009) suggested perceived enjoyment could serve as an internal (intrinsic) motivator to begin blogging (see Davis, Bagozzi, & Warshaw, 1992), whereby the author blogs because they expect to derive enjoyment from utilizing the medium. Hsu and Lin (2008) found that perceived enjoyment was related to a positive attitude toward blogging, along with ease of use, altruistic knowledge sharing, and increasing
positive reputation. In turn attitude toward blogging and identifying with members of an online community both significantly influenced a person's intention to blog, suggesting that perceived enjoyment does play a role in blogging behavior.

*Emotive & Auto-therapeutic Expression*

A number of authors have more generally cited emotional expression (both positive and negative) as a motivation for blogging (Cohn et al., 2004; Dvorak, 2002; Nardi et al., 2004). Dvorak (2002) suggested blogs could be used to vent cathartically or for gratification wherein the author can receive the added benefit of feeling important and at the center of attention. Nardi (2004) described some of the community engagement to be potentially pleasurable. Cohn, Mehl, and Pennebaker (2004) identified that the affective content of a blog can change depending on social or personal events for the author. For example a blogger may write using positive language after a good day and in turn receive positive feedback. Alternatively after a national tragedy such as September 11, 2001, blog language may display more negative emotions.

While pleasure appears to positively reinforce blogging behavior, negative affective expression appears to negatively reinforce (and maintain) blogging behavior through auto-therapeutic consequences. Negative affective expression, whereby bloggers vent and express their malcontent, appears to also be a major motivator of blogging (Ekdale et al., 2010). Several authors have suggested that similar to therapeutic pen and paper journaling, negative affective expression serves to reduce distress and promote additional blogging (Dvorak, 2002; Fullwood et al., 2009; Nardi et al., 2004). Cywinska-Milonas (2003; as cited in Trammell, Tarkowski et al., 2006) described blogging as a form of auto-therapeutic writing whereby written emotional expression leads to emotional gains in well-being. Likewise Nardi et al. (2004) described blogging as a means of cathartic self-expression. Using entries to manage emotions and fulfill emotional needs may be primary motivations for keeping a personal journal blog (Olcoon, 2003, as cited in Trammell et al., 2006; Fullwood et al., 2009). Terminology relating to auto-therapeutic expression is often loose, with Fullwood et al. (2009), for example, describing emotional expression as "keeping a diary". While 'keeping a diary' refers to a potential function of blog software, it does not specify emotional expression or
cognitive benefits, so it may be preferable to use more specific usage language such as using a blog to "keep a record of my life" or "vent negative emotions".

**Exchanging emotions with others; Emotional Support**

Several studies have also highlighted the importance of emotional exchange in blogging. Chung and Kim (2008) highlighted the value of emotional exchange in their U&G study of blogging motivations, whereby emotion management was one of the two most common blog uses for cancer patient bloggers. Of the 113 patients, bloggers who posted more blog entries, asked more questions of other users, and wrote more comments were described as having had more beneficial experiences (Chung & Kim, 2008). In the study, affective exchange involved emotional expression with the intention of receiving both social and emotional support. The study suggests that expressing emotions and fears to others can lead to anxiety reduction both through enhanced social support as well as informational support whereby unrealistic fears can be reduced with factual information.

Similar to Chung and Kim's study, Huang, Chou, and Lin (2008) found that affective expression and exchange were the most important motivation for blog readers. Leung (2009) conducted U&G research into the motivation of online content producers and found one of the four main motivations was meeting social needs by sharing feelings and thoughts with others. Affective exchange was also a need identified by Huang, Chou, and Lin. In their study which examined the motivations for reading a blog in a sample of 204 Taiwanese bloggers they found that readers were motivated to read and reflect on the emotions of the bloggers whose posts they read. In all the aforementioned studies, while emotional expression was a primary motivation, enhanced social support appeared to be a secondary motive.

Together these studies highlight the importance of the dual social-emotional capabilities of the blog. In the present thesis, emotional exchange and emotional support were both classified as affective needs. However, it should be noted that emotional support could be considered as a social integrative need as well as it reflects aspects of social interaction and support.
A number of social integrative needs are discussed in the literature. These needs include forming social connections, engaging with others, helping others, and participating in a community. Table 3.4 lists the major social integrative needs satisfied by blogging with references to studies of each need. Each need is then discussed in turn.

Table 3.4. *Potential Social Integrative Needs Described in the Blogging Literature*

<table>
<thead>
<tr>
<th>Need</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating social connections</td>
<td>Kawaura et al., 1999</td>
</tr>
<tr>
<td></td>
<td>Olcoń, 2003</td>
</tr>
<tr>
<td></td>
<td>Turgeon, 2004</td>
</tr>
<tr>
<td></td>
<td>Kaye, 2005</td>
</tr>
<tr>
<td>Social Engagement; Communication</td>
<td>Kawaura et al., 1999</td>
</tr>
<tr>
<td></td>
<td>Cohn et al., 2004</td>
</tr>
<tr>
<td></td>
<td>Turgeon, 2004</td>
</tr>
<tr>
<td></td>
<td>Nardi et al., 2004</td>
</tr>
<tr>
<td></td>
<td>Kaye, 2005</td>
</tr>
<tr>
<td></td>
<td>Trammell et al., 2006</td>
</tr>
<tr>
<td></td>
<td>Miura &amp; Yamashita, 2007</td>
</tr>
<tr>
<td></td>
<td>Chung &amp; Kim, 2008</td>
</tr>
<tr>
<td></td>
<td>Lee, Im &amp; Taylor, 2008</td>
</tr>
<tr>
<td></td>
<td>Leung, 2009</td>
</tr>
<tr>
<td></td>
<td>Hollengaugh, 2011</td>
</tr>
<tr>
<td>Community space; Community discourse</td>
<td>Graham, 1999</td>
</tr>
<tr>
<td></td>
<td>Olcoń, 2003</td>
</tr>
<tr>
<td></td>
<td>Nardi et al., 2004</td>
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<tr>
<td></td>
<td>Turgeon, 2004</td>
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<td></td>
<td>Kaye, 2005</td>
</tr>
<tr>
<td></td>
<td>Miura &amp; Yamashita, 2007</td>
</tr>
<tr>
<td></td>
<td>Hsu &amp; Lin, 2008</td>
</tr>
</tbody>
</table>

*Creating social connections*
Blogs may be helpful in creating social ties (Olcoń, 2003, as cited in Trammell, Tarkowski et al., 2006). Kawaura et al. (1999) pointed out that many bloggers appear to use their blogs to expand their social networks for both personal and...
professional reasons. Relationship formation appears to have its own subset of motives including seeking support (Chung & Kim, 2008), creating bridging social capital (Kawaura et al., 1999), creating bonding social capital (Kaye, 2005; Turgeon, 2004), and learning about the human experience. Turgeon (2004) underscored the capacity to meet new people with similar interests through a blog, highlighting the blog as a vehicle for increased social connections with increasing levels of social integration. Alternatively, Turgeon pointed out that blogs can be a mechanism for developing bridging social capital where individuals can connect with other individuals with divergent and unique interests and expand their worldview and social network (see Williams, 2007). In both cases blogs can result in a deeper understanding of what it is to be human as a result of sharing in others' experiences and discovering the underlying similarities of human existence. This concept fits in well with an existential psychological perspective where there is a universal commonality to human experience (Turgeon, 2004).

**Social Engagement; Communication**

Social engagement with both existing social connections and newly formed social connections appears to play a significant role in motivating blogging behavior. Hollengaugh (2011) found that 'social connection' where users communicated and shared personal information was a primary motivation of bloggers. Graham (1999) recognized the utility of a blog as a tool to broadcast information to others. While direct emails forced individuals to confront and respond to the content in his message, he found his blog could be used as a tool to post information or links that were of interest and let others seek out and decide whether they wanted to follow up on this information. Thus Graham recognized the ability of a blog to more passively communicate information to an audience, and the value in an audience choosing which information they wanted to access and attend to. Bloggers have the potential to express viewpoints and converse with other like-minded individuals (Kaye, 2005), communicate personal life events to others (Nardi et al., 2004), and 'get feedback' or advice from other bloggers (Hollengaugh, 2011; Nardi et al., 2004).

Lee, Im, and Taylor (2008) summarized the blog as a useful tool for managing relationships. Interpersonal communication and social engagement create opportunities for social support for bloggers. Information disclosed on a blog can lead to social support and well-being through the interaction it generates (Miura &
Yamashita, 2007). Leung (2009) found that the expression of thoughts and feelings to others was a primary motivation, and a blogger's level of interpersonal communication and social engagement appears to increase with affective distress (Cohn et al., 2004). Turgeon (2004) suggested a supportive process can unfold where blogs provide an opportunity for authors to be heard and understood, and where readers offer feedback and support through their readership and commentary. Nardi et al. (2004) also described this process when examining how bloggers can document their life experiences and simultaneously enter them into a communication forum with peers.

Community space; Community discourse
Persistent or repeated interactions with new and existing social contacts for communication, support, entertainment, and advice purposes can result in the formation of online community environments (Kaye, 2005). The extent and richness of blogging communities varies in descriptions in the literature. Olcoń (2003, as cited in Trammell, Tarkowski et al., 2006) describes a blog simply as a place to socialize with others. Likewise Kawaura, Yamashita, and Kawakami (1999) described blogs and blog rings as forums for social networking, and Hollengaugh (2011) as an environment for 'social connection' where users communicate and share personal information. However, a number of authors have described blogs as a much richer and deeper community space, where users' identities are linked to community identifiers and where they develop a sense of belonging (Hsu & Lin, 2008). Turgeon (2004) described how the bilateral exchange of information, advice, and passion with individuals with similar and different interests can create groups rich in diverse social capital. Graham (1999) envisioned blogs as a rich part of an online community where people could come together as a group, sharing information and promoting each other. Likewise Nardi et al. (2004) described how individuals can engage in community discourse and create a rich environment of interaction, exchange, and support.

3.2.3.4 Personal Integrative Needs

Personal integrative needs have been delineated as important to bloggers by a number of authors. These needs included expressing opinions, showing oneself to
others, identity formation and management, insight and self-growth, and professionalism. Personal integrative needs are complicated in that they often potentially overlap with other types of needs. Table 3.5 lists the major personal integrative needs satisfied by blogging with references to studies of each need. Each need is then discussed in turn.
<table>
<thead>
<tr>
<th>Need</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Express thoughts &amp; opinions; Ego gratification; Exhibitionism; Show self</td>
<td>Blood, 2002</td>
</tr>
<tr>
<td></td>
<td>Dvorak, 2002</td>
</tr>
<tr>
<td></td>
<td>Cyqinska-Milonas, 2003</td>
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<td></td>
<td>Olcoñ, 2003</td>
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<td>Turgeon, 2004</td>
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<td></td>
<td>Nardi et al., 2004</td>
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<td>Barr-IlIan, 2005</td>
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<td></td>
<td>Trammell et al., 2006</td>
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<tr>
<td></td>
<td>Miura &amp; Yamashita, 2007</td>
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<td></td>
<td>Chung &amp; Kim, 2008</td>
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<tr>
<td></td>
<td>Lee, Im &amp; Taylor, 2008</td>
</tr>
<tr>
<td></td>
<td>Fullwood et al., 2009</td>
</tr>
<tr>
<td></td>
<td>Hollengaugh, 2011</td>
</tr>
<tr>
<td>Identity formation; Identity management; Self-presentation; Recognition; Following a trend</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cyqinska-Milonas, 2003</td>
</tr>
<tr>
<td></td>
<td>Turgeon, 2004</td>
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<td></td>
<td>Huffaker and Calvert, 2005</td>
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<td>Kaye, 2005</td>
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<td>Miura &amp; Yamashita, 2007</td>
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<td>Huang, Chou &amp; Lin, 2008</td>
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<td>Lee, Im &amp; Taylor, 2008</td>
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<td></td>
<td>Leung, 2009</td>
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<tr>
<td></td>
<td>Hollengaugh, 2011</td>
</tr>
<tr>
<td>Self-expression; Creative Expression; Writing</td>
<td>Dvorak, 2002</td>
</tr>
<tr>
<td></td>
<td>Cywinska-Milonas, 2003</td>
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<td>Olcoñ, 2003</td>
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<td>Turgeon, 2004</td>
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<td>Nardi et al., 2004</td>
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<td>Trammell et al., 2006</td>
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<td></td>
<td>Miura &amp; Yamashita, 2007</td>
</tr>
<tr>
<td></td>
<td>Chung &amp; Kim, 2008</td>
</tr>
<tr>
<td>Professionalism; Self-promotion; Publication; Reputation</td>
<td>Graham, 1999</td>
</tr>
<tr>
<td></td>
<td>Dvorak, 2002</td>
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<tr>
<td></td>
<td>Cyqinska-Milonas, 2003</td>
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<td></td>
<td>Ekdale et al., 2010</td>
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<td>Hollengaugh, 2011</td>
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</tbody>
</table>
Express thoughts & opinions; Ego gratification; Exhibitionism; Show self

Blogs are well documented as being platforms for bloggers to express opinions and beliefs (Bar-Ilan, 2005; Nardi et al., 2004). Even when providing technical or educational information to readers, Barr-Illan (2005, p. 305) pointed out that most blog authors have a tendency to express their opinions in relation to the disseminated information. Nardi et al. (2004) and Olcoń (2003; as cited in Trammell, Tarkowski et al., 2006) suggested bloggers frequently express opinions both through postings and the resulting commentary. Blood (2002) described the opportunity to express one's thoughts and opinions as empowering, and the blogosphere as a space where everyone can have their voice heard and acknowledged. Dvorak (2002) was less flattering in his interpretation suggesting blogs are used to express thoughts and opinions for simple ego gratification, where authors feel important and at the center of attention. Alternatively Dvorak suggested authors may just want to express their individual personalities in an increasingly impersonal world, a motivation he termed antidepersonalization.

Like Dvorak (2002), Cywinska -Milonas (2003, as cited in Trammell, Tarkowski et al., 2006) pointed out that blogs can be used as a form of exhibitionism and as an outlet for extroversion, where socially skilled individuals can interact with others while showing themselves off. Fullwood et al. (2009) pointed out that while blogs often contain the private type of content that many people once kept locked in a drawer with a key and shared with no one, the intentional choice to publish this content implies some form of exhibitionism. Turgeon (2004) described a primary motivation for starting a blog as letting the world know about you, a form of virtual exhibitionism where authors express their individual voice to the world. Likewise, Hollengaugh (2011) described the motive 'exhibitionism' where users liked the idea of others reading about them and attracting attention.

Identity formation; Identity management; Self-presentation; Following a trend

While bloggers may frequently be stereotyped as opinionated, blogs are not simply unidirectional platforms from which bloggers can preach their beliefs. Comments open bloggers up to both positive and negative feedback from others, which in turn can allow the blog to act as an identity testing environment (see Section 2.6, p. 26).
While blogs provide an opportunity for authors to be heard and understood, the feedback of other readers can be an important component of blogging (Turgeon, 2004). Nardi et al. (2004) pointed out that community discourse and engagement had the potential to shape both personal and community views. In Hollengaugh's (2011) study on blogging motivations the motive 'to get feedback', where users actively sought advice from others, was a primary motivation. The process of documenting and reflecting described in the cognitive needs section 3.2.3.1, p. 42) also presents authors with the opportunity to gain self-awareness and insight through a process of self-exploration. Self-disclosure in blog posts allows authors to read personal commentary about their beliefs and experiences, and consequently a new self-awareness can develop (Miura & Yamashita, 2007). An environment of self-disclosure and feedback offers an excellent opportunity for bloggers to develop and test new aspects of their identity. For the less confident bloggers, Kaye (2005) points out that blog users can lurk and quietly surveil other users' points of view and opinions before choosing what to integrate into their personal belief structure and identity.

Some authors propose that self-disclosure leads to self-awareness, and through this new self-understanding bloggers increase their ability to manage and cope with challenges (Doctorow, 2002; Miura & Yamashita, 2007). The process of developing self-awareness and of personal growth using a blog appears to result from a combination of two factors. First, the author must disclose their thoughts, feelings, and experiences and in the process of writing they receive an opportunity to reflect and grow. Second, self-disclosure creates opportunities for this expression of their authentic self to be tested and validated through the opinions of others (Doctorow, 2002; Miura & Yamashita, 2007).

There is also evidence of active identity management on blogs. Cywinska-Milonas (2003, as cited in Trammell, Tarkowski et al., 2006) described the ability to control self-presentation as a major motivator for blogging. Some bloggers may enjoy presenting themselves in a realistic way (Lee et al., 2008), while others may use their blogs to actively manage their identities, intentionally choosing content which reflects them in the desired light (Huffaker & Calvert, 2005). An example of active identity management may be found in the motivation to read blogs just to 'get on the bandwagon' or 'follow a trend' (Huang et al., 2008; Lee et al., 2008).
Alternatively authors may be motivated to portray a positive self-image in order to promote their expertise and advance their professional standing in the community (Leung, 2009).

Self-expression; Creative Expression; Writing
A number of authors have highlighted the utility of a blog for practicing writing skills and creative expression (Chung & Kim, 2008; Dvorak, 2002; Miura & Yamashita, 2007; Trammell, Tarkowski et al., 2006; Turgeon, 2004). Brad Graham (1999), a blogger since 1998, was one of the earliest individuals to contemplate writing as a core motivation for blogging. With the birth of blogging as a formal genre beginning in 1996-1997 (Herring et al., 2005), Graham was an early adaptor of the medium. He started his blog because of his desire to be a journalist and publish, with his blog offering the opportunity to see his words in print. The use of a blog for professional writing is not uncommon, and the blog has been well documented for its ability to act as a journalistic tool (Lasica, 2002a, 2002b). Dvorak (2002) pointed out that a blog can serve the dual purpose of building writing skills and promoting one's progress towards becoming a professional author.

While some authors attempt to improve their formal writing skills, written expression can also be significantly less formal on personal journal blogs. Cywinska-Milonas (2003, as cited in Trammell, Tarkowski et al., 2006) suggested creative expression was a primary motivation of most bloggers. Indeed, a content analysis of 358 Polish blogs suggested a greater motivation to self-express than to interact with others (Trammell, Tarkowski et al., 2006). Self-expression can result in secondary gratifications such as enjoyment (Olcoń, 2003, as cited in Trammell, Tarkowski et al., 2006), self-growth (Turgeon, 2004), and affective relief (Chung & Kim, 2008). These benefits are described in more detail in the personal integrative (p. 51) and affective (p. 45) needs sections. While using blogs as tools for self-expression can empower authors who have their voices heard and acknowledged (Blood, 2002), authors can also benefit more directly through increased knowledge gained in the process of writing their blogs.
Professionalism; Self-promotion; Publication; Reputation

Bloggers can also benefit from professional uses of their blogs. Blogs can be used to promote an author’s hobbies or business (Dvorak, 2002), particularly for writers and journalists. For example, as mentioned above, Graham (1999) started a blog as a result of his desire to be a journalist and publish, with his blog offering the opportunity to see his words in print. Politicians may blog, for example, to appear more knowledgeable, likable, or accessible to constituents (Ekdale et al., 2010). Cywinska-Milonas (2003, as cited in Trammell, Tarkowski et al., 2006) cited 'self-promotion' as a blogging motive, Hollengaugh (2011) described 'professionalism' where users attempted to find work or maintained a blog for work, Hsu and Lin (2008) noted 'reputation', and Leung (2009) described the need to promote expertise and gain recognition as a motive for creating blog content.

3.2.3.5 Tension Reduction Needs

Some research suggests that blogs can fulfill tension reduction needs, including entertainment and passing time. Table 3.6 lists the major tension reduction needs satisfied by blogging with references to studies of each need.

Table 3.6.
Potential Tension Reduction Needs Described in the Blogging Literature

<table>
<thead>
<tr>
<th>Need</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment</td>
<td>Huang, Chou &amp; Lin, 2008</td>
</tr>
<tr>
<td></td>
<td>Leung, 2009</td>
</tr>
<tr>
<td></td>
<td>Lee, Im &amp; Taylor, 2008</td>
</tr>
<tr>
<td>Pass time</td>
<td>Hollengaugh, 2011</td>
</tr>
<tr>
<td></td>
<td>Leung, 2009</td>
</tr>
</tbody>
</table>

Leung (2009) described 'Entertainment Needs' (e.g., pass time, for entertainment) as motivating bloggers to produce content. Lee, Im and Taylor (2008) suggested bloggers may self-disclose on blogs for entertainment. Likewise Huang, Chou and Lin (2008) described entertainment as a motivation for reading blogs, and Hollengaugh (2011) passing time. Hollengaugh (2011) found passing time was a more common for younger bloggers.
3.2.3.6 *Generativity Needs*

Erikson (1968) in his theory of psychosocial development proposed that adults who felt successful in life would display generativity. Generativity refers to caring for and helping future generations without expecting anything in return, in essence altruism, generating a better life for future generations through contributing to their communities. Two Generativity Needs were identified in the literature, sharing information with others and helping others. A further potential generativity need, the desire to offer social support, was previously discussed in the section on social integrative needs (see Section 3.2.3.3, p. 49). Table 3.7 lists the generativity needs with references to studies of each need.

### Table 3.7. Potential Generativity Needs Described in the Blogging Literature

<table>
<thead>
<tr>
<th>Need</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing information with others</td>
<td>Dvorak, 2002</td>
</tr>
<tr>
<td></td>
<td>Barr-Illan, 2005</td>
</tr>
<tr>
<td></td>
<td>Chung &amp; Kim, 2008</td>
</tr>
<tr>
<td></td>
<td>Hsu &amp; Lin, 2008</td>
</tr>
<tr>
<td>Helping others</td>
<td>Dvorak, 2002</td>
</tr>
<tr>
<td></td>
<td>Ekdale et al., 2010</td>
</tr>
<tr>
<td></td>
<td>Hollengaugh, 2011</td>
</tr>
</tbody>
</table>

Several studies have suggested bloggers are motivated by a desire to share information with others (Bar-Ilan, 2005; Dvorak, 2002; Hollengaugh, 2011). Barr-Illan (2005) pointed out many bloggers post information to assist others in making decisions or learning. Rather than a self-centered desire for promotion or recognition, Dvorak (2002) suggested many bloggers were motivated by an altruistic drive to share information and knowledge with others, in part to help make social improvements. Hsu and Lin (2008) found that altruism as a knowledge sharing factor positively influenced attitudes towards using a blog, and in turn intention to blog, suggesting many bloggers actively participate with the intention of increasing the welfare of others. Likewise Chung and Kim (2008) described information sharing on blogs of cancer patients as providing supportive information to others. Hollengaugh (2011) and Ekdale et al. (2010) suggested the motivation to
share information may overlap with the motivation to help others. They found bloggers were often motivated by 'helping/informing' where users wanted to benefit other users and share their knowledge and experience. As with the Generativity described by Erikson (1968) in his Stages of Psychosocial Development, Hollengaugh found the helping and informing motivation was more common amongst older bloggers.

### 3.2.4 Issues with Current Blog Research

Many of the studies on blogging motivations are limited by measurement issues, for example using only a small number of items to measure a construct (e.g., Ekdale, 2010 sampled emotional expression as a motivation using one item). Some motivation constructs appear multidimensional (e.g., Leung, 2009 included expressing feelings and sharing views as forming the same social need). Also, overall there has been a lack of consideration of the different types of blogs analyzed (topical blogs, personal blogs, mixed blogs, video blogs, etc.)(Kaye, 2005; Leung, 2009). Accordingly there is little consensus as to which types and subtypes of needs are most important in blogging behavior. While Leung (2009) found personal integrative (recognition) and social integrative needs predicted greater blog usage, Trammel, Tarkowski et al. (2006) found cognitive needs and personal integrative needs (self-expression) were greater motivators than social integrative needs (interaction with others), and Hollengaugh (2011) found cognitive needs (archiving/organizing, helping/informing), social integrative needs (social connection) and generativity needs (helping/informing) were predictive of blogging behavior. As well as different types of blogs and different personal characteristics of authors, it appears that author motivations may vary depending on the event being described. For example, Cohn, Mehl and Pennebaker (2004) found that after September 11, 2001 blogs temporarily displayed more negative emotive language (affective needs), more social engagement (social integrative needs), and more cognitive engagement (cognitive needs). Also as a user blogs, their motivations may change. Ekdale et al. (2010) found many motivations increased over the course of a participant's blogspan.
3.3 Summary

This chapter has described a number of potential motivations for blogging from a Usage and Gratifications perspective. Eighmey (1997) suggested that internet applications are well suited to examination from a U&G perspective as internet users actively and often consciously aware of what motivates their choices of media for need gratification. While there are a number of studies representing each of the six dimensions of cognitive, affective, social integrative, personal integrative, tension reduction, and generativity needs, there is a scarcity of research examining these needs concurrently.

Many of the studies on motivations either examine a limited sample of motivations, or use a limited number of items in the construction of their scales. Kaye (2005) suggests that further research needs to be conducted into the antecedents of and motivations for blogging. During the writing of this thesis Hollengaugh (2011) published the most comprehensive motivation scale to date which outlined seven key motivations for blogging: helping/informing, social connection, passing time, exhibition, archiving organizing, professionalism, and getting feedback. Hollengaugh pointed out that her dimensions are not comprehensive and further research should look for additional motivations. Thus an ongoing query in the blog literature is the question of what motivates bloggers to blog, and how can we measure it? This research question is taken up in the current thesis in Studies 1 and 2 (Chapters 6, p.107, and 7, p. 150).

Hollengaugh (2011) also suggested that there is a need to examine motivations in terms of other media applications such as Facebook.com, and to examine which applications users choose to satisfy differing motivations. While research has looked at motivations for using the internet in general, more research is warranted in examining why individuals choose certain applications to satisfy their needs (Hollengaugh, 2011). Blogs are closely related to SNSs, and often exist on SNSs, so comparing blogs and SNSs may be of particular interest. Thus the issue of how the motivations of bloggers compare to those of social networkers is also examined in this thesis in Study 2 (Chapter 7, p. 150).
4 What are the Effects of Blogging? A Review of Literature on the Social and Emotional Consequences of Blogging

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4.4 Summary ........................................................................................................................................ 88
4.1 Overview

This chapter considers the possible social and emotional effects of the internet in general and blogging in particular on users of these media. The first section provides an overview of the shift in the focus of the literature from disconnection, loneliness, and social displacement to social connectedness and the formation of online communities. This shift has largely mirrored the shift in internet technologies towards more socially interactive features and the increased uptake of internet usage in the population. Still, some research continues to examine problematic internet usage in light of low social well-being. The second section describes the literature on problematic internet usage in relation to emotional distress and loneliness. It goes on to examine the positive effect of therapeutic writing on emotional well-being and how this might relate to blogs and blog content. Finally, just as social and emotional well-being are often closely interlinked, the chapter concludes by discussing the dual social and emotional role that blogs can perform.
4.2 Social Consequences of the Internet Usage and Blogging

There has been a considerable shift in the tone of the literature relating to social well-being and internet use over the past two decades, and this tone has mirrored changes in internet technologies. In the early 1990's the internet was considerably more desolate in terms of social functionality, and consisted predominantly of static webpages. Advances over the last decade in applications, technologies, and accessibility have resulted in the internet being described as "Web 2.0", a title that highlights the significant upgrade in function and utility (DiNucci, 1999). Most importantly, these advances have transformed the internet's usability as a social tool, where internet users can more easily create content and community, and social applications such as blogs and SNSs have flourished.

In light of the relative lack of functionality for early internet adapters it is thus unsurprising that early internet research focused on the potential social damage that the internet might cause, in particular through the erosion of FTF socialization (Kraut et al., 1998; Nie & Erbring, 2000). Research initially focused on the relationship of loneliness and social anxiety to internet usage (Morahan-Martin & Schumacher, 2003; Shapira, Goldsmith, Keck, Khosla, & McElroy, 2000), with the emphasis shifting from the internet causing interpersonal difficulties (Kraut et al., 1998) to the internet attracting individuals who have interpersonal difficulties in real life (Seepersad, 2004). With the development of more socially rich web-applications research has largely split, with one subset of researchers examining internet use in terms of problematic internet usage (Morahan-Martin & Schumacher, 2000) and another examining it in terms of relationship formation and social well-being (McKenna et al., 2002).

Several theories relating to social well-being are discussed in the following sections including the social compensation theory (McKenna et al., 2002), the rich get richer theory (Seepersad, 2004), the internet as an extension of real life hypothesis (Boase & Wellman, 2006; Quan-Haase & Wellman, 2004), and the enhanced self-disclosure hypothesis (Valkenburg & Peter, 2009). These theories suggest that a variety of different types of users may benefit from internet
applications in differing ways depending on usage and individual attributes. Also, the formation of online communities and social capital are described in more detail.

4.2.1 Social Disconnection

Early internet research suggested that a consequence of general internet use may be the erosion of real world relationships - social disconnection - through the displacement of social activities and social ties (Kraut et al., 1998). In their seminal repeated measures study (which has since been referenced nearly 2000 times) Kraut et al. (1998) surveyed 169 new internet users before receiving their internet connection and again after one to two years of usage and found increased internet usage was associated with decreased social well-being as measured by family communication, social network size, and loneliness. They concluded that the internet was a paradoxical social technology which reduced psychosocial well-being. Shortly after, other researchers presented similar findings. Chou and Hsiao (2000) in their study of 910 Taiwanese university students found that high internet usage could inhibit FTF relationships and was related to social isolation. Nie and Erbring (2000) in their study of 2689 American households (4113 participants) found that higher weekly levels of internet usage were associated with a larger percentage of internet users reporting increases in social isolation (as measured by decreases in the amount of time spent with family, with friends, and participating in activities outside of home). Their results are presented in Figure 4.1. The Y axis represents the percentage of the total sample of internet users who reported decreased weekly time spent in each respective social activity.
Nie (2001) concluded that the internet, despite facilitating connectivity through CMC, could gradually erode real world relationships by decreasing social interaction with family and friends. His rationale was that with a fixed amount of time in a day, greater amounts of internet usage would "displace" the time available for social activities (Nie & Hillygus, 2002).

While Nie and Hillygus's (2002) later time-diary study of 6,146 Americans between the age of 18 and 64 did find that internet users spent less FTF social time with friends and family (see Figure 4.2), a major limitation of this study was that they effectively considered any online socialization as detrimental to well-being and labeled it as socially isolating. Despite individuals in their diary study spending time online playing games and socializing with family and friends, this was not counted as time socializing with others, suggesting a significant bias by the authors against the potential for users to benefit socially or emotionally from time spent online. Markoff (2002) suggested that future studies might examine whether the quality or effect of relationship maintenance online and offline differed or the consequence of online socialization.
More recently, research into social displacement and decreases in well-being in the general public has subsided. Kraut et al. (2002) in a second follow-up of 208 users from their original longitudinal study found that the negative social effects reported in Kraut et al. (1998) had dissipated. Further, in both the old sample and a new longitudinal sample of 406 computer and television purchasers they found internet usage was associated with increased social and emotional well-being, with decreases in well-being limited to an extreme group of internet users prone to over-usage (see Section 4.3.1, p. 81, for more on problematic internet usage). With similar methodologies, but differing population levels of user experience, Kraut et al. (2002) explained some differences in terms of both the maturation of internet users and the internet itself. Kraut et al. (2002) concluded that advances in the internet, both in terms of the increased percentage of the population using the internet and the increase in social technologies available on the internet, had transformed the internet into a more pro-social tool.
4.2.2 Loneliness

Research has debated whether the internet increases loneliness or whether the lonely are drawn to the internet (Morahan-Martin & Schumacher, 2003). A person's level of loneliness describes how poorly they perceive the quantity or quality of their social relationships (Rubin, Perse, & Powell, 1985). While related to social connectedness, loneliness does not reflect an individual's actual social connectedness but rather how sufficient or deficient they perceive their social engagement to be (Victor, Scambler, Bowling, & Bond, 2005). Loneliness can be both social (e.g., perceived strength of social net) and emotional (e.g., perceived presence of intimate relationships) in nature (De Jong Gierveld & Kamphuis, 1985; De Jong Gierveld & Van Tilburg, 1999b), and most internet research to date has considered these aspects together and used measures of overall loneliness in assessing psychosocial well-being. Accordingly, some of the research on loneliness will overlap with aspects of emotional well-being discussed in Section 4.3.

Numerous studies have found a link between problematic internet usage and loneliness (Caplan, 2002; Kraut et al., 1998; Morahan-Martin & Schumacher, 2000; Özcån & Buzlu, 2007). Kraut et al.'s (1998) original longitudinal study of new bloggers, described above, suggested that internet usage could increase loneliness and feelings of isolation, decrease social connectedness, and thus reduce overall well-being. This proposal was labeled the "reduction hypothesis" whereby spending time online reduced (or displaced) social connectedness and well-being and increased feelings of loneliness and isolation (Valkenburg & Peter, 2009). Proponents of this idea tended to describe the internet as a potentially hostile environment with anonymous bullies (Ybarra & Mitchell, 2004) and as a pseudo-community in which parasocial activities lacked the depth and richness of FTF life replaced 'real' social interaction (Beniger, 1987).

The alternate hypothesis, that the lonely are attracted to the internet, has gained considerably more support (Hamburger & Ben-Artzi, 2003; Morahan-Martin & Schumacher, 2003). Morahan-Martin and Schumacher (2003) proposed the lonely may be drawn to the internet for companionship and relationship formation based on their study of social internet usage to modulate moods among 277 undergraduate university students. Using a small Israeli sample of 85 participants (aged 16-58, $M$=26.61, $SD$=9.70), Amichai-Hamburger and Ben-Artzi (2003) found support for a
structural equation model where individuals already lonely in FTF life spent more time on the internet. Likewise higher internet usage has been correlated with higher levels of social and family loneliness in an Australian sample of 222 internet users over the age of 55 (Sum, Mathews, Hughes, & Campbell, 2008). Interestingly higher internet usage in this sample was related to lower levels of romantic loneliness, suggesting some users may be successful in reducing aspects of their loneliness using the internet (e.g., through using dating sites). Thus some people may intentionally utilize the internet to meet new people online (Sum et al., 2008), or to communicate with existing social connections, and actively cope with their loneliness through emotional expression and interpersonal interaction (Seepersad, 2004; Sum et al., 2008; Valkenburg & Peter, 2009). Lonely individuals may also use the internet as a means of avoidant coping, engaging in entertainment and distraction to overcome their loneliness (Seepersad, 2004). Thus why lonely individuals turn to the internet may rely entirely on the motivations of the user.

4.2.3 Social Anxiety

A number of internet researchers have started to include social anxiety in their research designs in addition to loneliness. Social anxiety refers to a person's anxiety about social interactions with others and fear of evaluations by others (Leitenberg, 1990), with socially anxious individuals wanting to present themselves in a positive light but lacking confidence in themselves (Leary & Kowalski, 1995). Many of the situational factors which lead to social anxiety are absent on the internet, and consequently some individuals may turn to the internet to meet their social needs (McKenna & Bargh, 2000). In particular, the internet provides opportunities to control self-presentation and to reduce the risk of embarrassment or negative judgments in front of others, and thus socially anxious individuals may display a preference for utilizing the internet for communicating with strangers over FTF interactions (Matanda, Jenvey, & Phillips, 2004).

Because people high in social anxiety often fear negative judgments from others and embarrassing themselves in public (Leitenberg, 1990), socially anxious people often have a reduced willingness to engage in social situations, an increased awareness around social interactions, and as a result are more predisposed to loneliness. The close relationship between loneliness and social anxiety has
contributed to their interchangeable usage in much of the earlier internet research. For example, in their article titled 'Loneliness and social uses of the Internet' Morahan-Martin and Schumacher (2003) described a number of reasons lonely individuals may prefer utilizing the internet for emotional support and to socially interact with other people who had similar interest; lonely individuals may be drawn to the internet due to the ability to have a lower online presence where they could observe interactions, control how they present themselves, and could remain anonymous if desired.

The internet may help socially anxious individuals form and develop relationships which improve their well-being. Recent research has suggested that online social networking can result in increased self-efficacy and sociability (Tidwell & Walther, 2002). Ando and Sakamoto (2008) found that higher numbers of online friends were related to reductions in social anxiety and loneliness in a sample of 178 Japanese university students (M age = 20.29 years). Rice and Markey (2009), in an American study of 80 female university students (M age = 18.88 years, SD=1.10), found that online interactions with a confederate were perceived as less stressful than FTF interactions, particularly for individuals high on neuroticism. Peter, Valkenburg, and Schouten (2005) in a study of 493 Dutch adolescents (aged 9-18, M=13.37, SD=1.98) found that participants were more likely to use the internet to communicate when they felt less comfortable discussing the matters in FTF life, felt shy, or felt nervous about disclosing information.

Le Greca and Harrison (2005) proposed that poor social skills and social anxiety may predispose individuals to utilize the internet for relationship formation and maintenance. This may be because the internet has the potential to provide a sense of warmth and well-being for socially anxious individuals who can interact with others as a substitute for FTF relationships, or alternatively because the internet can serve as a form of distraction and escape from these relationships (Lo, Wang, & Fang, 2005). As the internet can create opportunities for avoidant coping (Matanda et al., 2004), several studies have found a link between social anxiety and increased or problematic internet use (Liu & Kuo, 2007; Shapira et al., 2000). Liu and Kuo (2007) proposed a model for problematic internet usage whereby individuals with less satisfactory parent-child and other interpersonal relationships were more socially anxious and consequently more inclined to use the internet at problematic
levels. They found that social anxiety and relationship factors accounted for 20.3% of the variance in internet addiction in a sample of 555 Taiwanese students.

Reduced social context cues and increased control over self-presentation fit much better theoretically with social anxiety than loneliness. Socially anxious users can attempt to minimize opportunities for social embarrassment and are enabled to 'lurk' in the background or participate partially anonymously. They can thus benefit from socializing without a number of the stresses involved in FTF interactions. The internet has the ability to enable users to bypass physical constraints such as job and appearance, allowing them to create whatever identity they desire on the internet (Turkle, 1996). Likewise the ability to 'lurk' on the internet without actively contributing to online conversations may enable more socially anxious users to feel engaged and part of the community, without experiencing high levels of social discomfort (Papacharissi & Rubin, 2000). Blogs have this capacity to easily allow people to read the thoughts and feelings of other bloggers, and to feel part of the community, while safely remaining in the background.

Because until recently most internet research did not separate loneliness and social anxiety as constructs, in the following sections on social well-being the interchangeable nature of these constructs should be kept in mind.

4.2.4 Theories of Social Well-being

While early research focused on social disconnection, with the increase of social internet applications and the uptake of internet usage, research has largely shifted to include positive social impacts and social connectedness both online and offline. Valkenburg and Peter (2009) highlighted the changing landscape of the internet in the mixture of internet findings. In particular, they suggested that the internet in the late 1990's and early 2000's was nowhere near as socially rich as it is today, and that research findings regarding social connection or disconnection predating SNSs may be outdated. While at present SNSs and communication platforms are omnipresent on the internet and the uptake of these platforms has been quite high, in the 1990's the net was nowhere near as sociable in terms of applications or utilization. Thus while in the late 1990's Valkenburg and Peter (2009) suggested the internet may have reduced the quality and extent of FTF connections, at present it may instead be neutral or have the potential to be additive in terms social connectedness. Social
connectedness refers to a person's relationships with others either in FTF life or online (Valkenburg & Peter, 2009), and can be described in terms of the number, type, intensity, and quality of the relationships. The following section explores several different theories about how socially advantaged and disadvantaged individuals may benefit from internet applications in terms of social connectedness.

4.2.4.1 The Social Compensation Theory

It is unsurprising that people lacking sufficient offline social connections may use mass media to help meet their needs for social connection (Davis & Kraus, 1989). As mentioned previously, socially anxious or lonely people may be drawn to the internet for communication and relationship formation due to its lower social burdens (due to partial visual and auditory anonymity) and enhanced user control (McKenna et al., 2002). Because the internet involves fewer visual and auditory cues than FTF interpersonal interactions, the web may lead to less social inhibition and consequently more meaningful self-disclosure. McKenna et al. (2002) proposed internet users can more easily express their 'true' selves and through this disclosure create more meaningful and lasting relationships. The result is 'social compensation', where individuals high in social anxiety and loneliness increase their social connectedness using internet technologies to create or support relationships. Where relationship formation builds self-esteem and confidence, the benefits of positive online relationship formation may potentially extend beyond the internet leading to increased confidence in social encounters and increased social satisfaction in FTF life. The Social Compensation Theory is based on two premises: that socially disadvantaged people are drawn to the internet in order to supplement their social connections, and that connections formed or supported on the internet can lead to personal growth.

Several studies have given support to first premise, that the internet attracts individuals dissatisfied with their social connectedness. Papacharissi and Rubin (2000) surveyed 279 university students on their use of the internet and found that individuals who were less satisfied with their FTF relationships were more likely to view the internet as a positive interpersonal tool. They concluded that some people may thus use the internet as a ‘functional alternative’ for FTF contact to meet their interpersonal needs. Likewise, individuals who have less FTF intimacy appear to be...
more likely to engage in virtual romantic relationships (Scott, Mottarella, & Lavooy, 2006). Papacharissi and Rubin (2000) suggested users may prefer to engage in online relationships due to a user's ability to maintain greater control over their image and interactions.

Research has also supported the utility of the internet in supplementing FTF social connectedness. Some research has suggested that for individuals who have a difficult time forming or maintaining relationships offline, the internet may help provide them with a sense of connection and belonging (Shepherd & Edelmann, 2001). Socially anxious individuals are more likely to form friendships on the internet (Peter et al., 2005) and to connect with others on the internet (Gross, Juvonen, & Gable, 2002) than individuals low in social anxiety. Additionally some research has suggested that shy or introverted individuals may benefit more from using the internet than extroverted individuals (Shklovski, Kraut, & Rainie, 2004).

In terms of blogging, lonelier bloggers are more likely to use their blogs for exhibitionistic purposes (i.e., to show themselves to others) (Hollengaugh, 2011), suggesting they may be trying to utilize the blog platform to expand their social presence and increase their connections. Indeed, Baker and Moore (2008a) found that blog authors showed improvements in social well-being, with gains in social integration and perceived social support after two to three months of blogging. These gains were not mirrored in a cohort of social networkers, suggesting blogs may provide additional avenues for creating new social connections and strengthening existing ones beyond those offered by other internet applications.

4.2.4.2 The Rich Get Richer Theory

While the Social Compensation Theory proposes that individuals disadvantaged in FTF communication may benefit interpersonally from internet usage, the Rich Get Richer Theory proposes that individuals better at socializing in FTF life will benefit more from socialization on the internet. While theoretically individuals who are lonely in FTF life could use the internet to improve their social capital, Seepersad (2004) found that adolescents who utilized avoidant coping strategies in FTF life continued to use avoidant coping strategies on the internet (N=429, 14-23 year olds, M age=19.5). Internet usage perpetuated their loneliness as they continued to utilize ineffective coping strategies within differing media environments. Likewise Gross,
Juvonen and Gable (2002) only found evidence for well-adjusted adolescents continuing to nurture their FTF relationships using the internet with no evidence that anxious or lonely young teens found social support on the net ($N=130$ American 7th graders). Both studies may be outdated, however, as they predate the emergence of SNSs which offer alternative avenues for relationship formation and maintenance.

On the other hand, a handful of studies have supported the Rich Get Richer Theory, showing extroverts who were already 'rich' with social support in FTF life benefited the most from online interactions (Kiesler et al., 2002; Kraut et al., 2002; Matei & Ball-Rokeach, 2001). Seepersad (2004) found individuals high in social capital in FTF life were more likely to self-disclose online, and as a result continue to extend their social networks. Kraut and colleagues (2002) proposed that because extraverts had more social skills and were better socially adjusted, the ease with which they communicated offline translated online to further communication and social involvement, resulting in higher overall social well-being. Likewise Kiesler et al. (2002) found that extraverts with more social support experienced good outcomes from internet use in terms of social involvement and psychological well-being. It appears that a higher level of belonging in FTF communities may translate to more online interaction and consequently greater formation of social ties.

Recent research specifically on blogging suggests that socially connected bloggers may benefit more in terms of social well-being from their blogs. Hollengaugh (2011) found that bloggers low in loneliness were more likely to blog to enhance social connection. Likewise bloggers who were more disclosive and used their blogs in a more extraverted and exhibitionistic way were more likely to blog for social connection (Hollengaugh, 2011).

4.2.4.3 The Internet as an Extension of ‘Real Life’

Many people utilize the internet to engage in their FTF hobbies and interests and interact with people from their FTF lives (Quan-Haase & Wellman, 2004), and thus some people may simply utilize the internet as an extension of their FTF life and FTF identity. Boase and Wellman (2006) argued that the internet, due to a number of factors including but not limited to affordability, immediacy of access, lack of geographical inhibitors, and lack of social inhibitors, is well suited for the
maintenance or improvement of an individual's social connectedness in FTF and online life.

There has been some support for the hypothesis that the internet merely extends FTF interactions to a different medium without either enhancing or deteriorating normal patterns of social interaction (Uslaner, 2000). Wellman et al. (2001) found the internet neither decreased nor increased interactions with people from FTF life, but merely supplemented or replaced some of their normal FTF and telephone interactions. While researchers suggest that the internet may extend real life socializing by allowing individuals to connect with people from FTF life who live beyond their local community (Hampton & Wellman, 2001), generally the internet is considered to be a tool which is largely neutral in terms of utilization and effect. Indeed, some research suggests that individuals using the internet spend the same amount of time socializing (including internet socializing), but spend less time watching television (UCLA Center for Communication Policy, 2001). Socializing online can provide its own benefits, helping groups of people coordinate their social lives simultaneously or connect with others from different geographic locations (Gershuny, 2002).

IP and Wagner (2008) pointed out that blogging and social networking sites may merely enhance the way individuals interact, altering the usage patterns of or replacing older interpersonal communication mediums such as telephones and email. Indeed websites such as Facebook.com can minimize once effortful tasks such as organizing a party, with invitations, times, directions and maintaining a registry of RSVPs all done automatically after an initial invitation is sent out.

4.2.4.4 The Enhanced Self-Disclosure Hypothesis

It is quite possible that the Rich Get Richer Theory, the Social Compensation Theory, and the view that the internet serves merely as an extension of FTF life may all be partially correct. For example, in a study on romantic communication over the social networking website MySpace.com both university students low in global self-esteem, and students high in their confidence of their physical appearance, displayed increased engagement in romantic communication aimed at relationship formation (Qingwen, Urista, & Gundrum, 2008). Similarly Bessiere, Kiesler, Kraut, and Boneva's (2008) study of 1,222 US households (participants aged 13-101, Mdn age
found individuals low in social support who used the internet to meet new people experienced reductions in depression scores after six months of usage, as did individuals high in social support who used the internet to connect with existing friends. In this sense it seems more appropriate to examine ways in which the internet can generally enhance social connectedness, rather than simply examine CMC in terms of the socially anxious and socially competent.

Research has suggested that the internet has the capacity to build and extend interpersonal relationships (Horrigan, 2001). The Enhanced Self-Disclosure Hypothesis proposes that the internet has the potential to promote social connectedness and improve relationship quality through a heightened ability to self-disclose over the internet (Valkenburg & Peter, 2009). Valkenburg and Peter (2009) point out that several studies have shown increases in well-being in relation to online communication and connection (e.g., Bessiere et al., 2008; Kraut et al., 2002). In their model they propose that online communication stimulates self-disclosure, which in turn enhances a person's quality of relationships, and ultimately their well-being. They suggest that this process of self-disclosure is mediated by the type of technology and its use, gender, and levels of social anxiety (Valkenburg & Peter, 2009).

While Valkenburg and Peter (2009) point to research showing demographic variables such as gender, affective variables such as social anxiety, and technology variables such as application type and use as affecting self-disclosure and in turn well-being, it is possible that other factors could influence this model. Certainly there is considerable evidence that the type of technology used (e.g., email, blog, SNS, etc.) and how it is used varies depending on a user's needs and intentions (Saling & Phillips, 2010). However these choices are influenced by additional factors such as personal characteristics like affective reactivity, disposition, motivations, and impression management. For example more asynchronous and personally distant technology such as e-mail may be preferred over FTF communication when social or emotional anxiety is involved in an interaction, and this preference is also linked to personality dispositions with individuals high in neuroticism and introversion preferring more socially detached communication platforms (Hertel, Schroer, Batinic, & Naumann, 2008; Rice & Markey, 2009). Likewise the type of content discussed (e.g., talking about killing small animals
compared to experiences on a peace corps mission) would affect the type of response an author receives, and thus despite potentially high levels of disclosure certain types of content may result in poor social consequences and worsened social and emotional well-being. While frequent complaining may alienate readers, constant compliments on and trackbacks to other blog posts may make an author appear endearing. As Valkenburg and Peter (2009) did not include personal characteristics or social consequences in their model, a model of the Internet Enhanced Self-disclosure Hypothesis is shown in Figure 4.3, which has been modified by the author to include personal characteristics and social consequences as potential influencing factors.

![Diagram of the Internet Enhanced Self-disclosure Hypothesis](image)

**Figure 4.3.** A model of the Valkenburg and Peter's (2009) Internet Enhances Self-disclosure Hypothesis modified by the author to include additional potential influencing factors.

There is some support for this extended modified model in terms of blogging behavior, particularly in terms of social consequences. Kawaura, Yamashita and Kawakami (1999, as cited in Miura & Yamashita, 2007) found that self-disclosure was a major motivation for bloggers. Further this self-disclosure affected their social relationships, presumably in a positive way as they derived satisfaction from their interactions (Miura & Yamashita, 2007). In particular, Miura and Yamashita (2007) found support for the influence of social consequences, where the type of feedback received (positive or negative) influenced how much satisfaction a blogger derived,
with more positive feedback resulting in more sense of social acceptance, more pleasure, and an increased likelihood to continue blogging. Thus blogs have the potential through their content and audience to act as a communication medium which can facilitate social and emotional well-being.

### 4.2.5 Online Communities and Social Capital

#### 4.2.5.1 Online Communities

Preece (2001) defined an online community as "any virtual social space where people come together to get and give information or support, to learn or to find company (p. 348)." The internet can allow communities with varying interests to affordably and asynchronously span the geographical borders and interpersonal barriers found in FTF life, and thus the internet may be able to transcend the levels of social capital available in FTF life or at least supplement them by making real world contact easier (Quan-Haase & Wellman, 2004). In particular it can help individuals who are socially competent but disadvantaged become part of online communities, for example connecting isolated or disabled people (Brennan, Moore, & Smyth, 1992), people suffering from an illness (Chung & Kim, 2008), socially marginalized groups such as same-sex attracted individuals (Yang, 2000), and people with specific unusual interests. While the internet has to power to create online communities, Quan-Haase and Wellman (2004) point out that this contact can decrease local real world contact by drawing people away from their normal community to the online global one. However the ability to use the internet to join supportive communities is generally looked on in a positive light (Coulson, 2005).

Blogs have the potential to allow people to provide information or support through posts and comments; to learn through reading, researching, and writing posts; and to enable people to come together and find company with likeminded or exotic groups of people. Thus there are numerous opportunities for bloggers to find a sense of community in both authoring and reading blog entries. Gumbrecht (2004) highlighted the sense of community that blogs can create, with bloggers thinking about other bloggers both in their drafting entries and responding to other users. Some bloggers write and respond to entries with the specific motives of giving helpful advice and receiving constructive feedback from others (Hollengaugh, 2011), and this form of positive exchange lends itself to individual and community
relationship formation, some of which may translate to FTF contact (e.g., conferences, group get-togethers).

4.2.5.2 Social Capital

Community connections have been quantified in sociological research in terms of social capital, a concept which attempts to capture and describe the inherent value or benefit (capital) of the interconnections of people in a community (Portes, 1998). Social capital is considered in terms of the type of people with whom an individual forms social connections. Where connections are with like-minded people with similar interests the social capital is referred to as bonding capital, whereas where connections are with people with differing interests and perspectives it is referred to as bridging capital (Putnam, 2002).

The internet provides unique opportunities to create bridging capital. Bridging relationships are usually more shallow in terms of emotional support because people in them are from diffuse backgrounds and come from a broad range of experiences (Putnam, 2000). Most relationships start on the internet as bridging relationships as they require less depth, and internet groups or relationships are usually easy to join and leave (Galston, 2000). An advantage of bridging relationships is that they enable people to expand their range of expertise and world view (Putnam, 2000). By connecting with people who have differing interests bloggers in particular have an opportunity to grow and connect in previously unexperienced ways (Williams, 2007). Bloggers can reach audiences of diverse backgrounds, and in turn read entries from other bloggers with diverse backgrounds. Indeed, one commonly reported benefit of blogging is this ability to learn and discover new things (Doctorow, 2002; Nardi et al., 2004). Many relationships on the blogosphere start as bridging relationships, and where they strengthen and deepen can end up as bonding relationships.

Bonding is described in the literature as more socially comfortable as it involves forming interpersonal relationships with a less diverse and more socially integrated group of people (Putnam, 2000). Cutrona and Russell (1987) define social integration as "a sense of belonging to a group that shares similar interests, concerns, and recreational activities (p. 40)" and accordingly social integration has direct ties to an individual's sense of identity and well-being. Engleberg and Sjöberg
(2004) conducted a study of 41 Swedish university students which compared individuals with mainstream values to individuals with divergent values in terms of internet usage. They found individuals with divergent (or socially deviant) values used the internet more heavily in order to find a more similar group of peers, and consequently scored higher on internet addiction measures. Baker and Moore (2008a) found that new bloggers had increased levels of social integration after blogging for two months, suggesting they had found a like-minded group of peers with whom they could connect through their blogs. It is thus possible that individuals with divergent values may utilize the internet to connect with a like-minded group of peers. Whether this substitution for FTF social connections is harmful or helpful has not been specifically studied. However, Baker and Moore (2008a) found that accompanying the increased social integration and satisfaction with friendship the bloggers also experienced a decrease in negative affective symptomatology.

The internet, and blogging in particular, provide opportunities for bonding. Webrings can help create a community of likeminded peers within the blogosphere (Miura & Yamashita, 2007). Likewise trackbacks are another community building mechanism through allowing blog authors and readers to communicate and interact with each other across a number of blogs simultaneously, usually discussing similar content (Miura & Yamashita, 2007). In addition to links in posts and blogrolls which normally list other similar blogs a reader might enjoy, these blogging tools all have the potential to create an environment of inclusivity and community.

4.2.5.3 *The Role of Commenting in Community Development*

The most critical element of blogging which can contribute to a sense of community involves commenting and responding to comments. Blogging significantly differs from other forms of CMC such as email where the recipient is targeted and is expected to read the content of a message. With blogs, readership is voluntary. As a result, blog readers are more likely to read and comment on a blog post because they are interested in the content, and consequently have chosen to read it (Dickey, 2004). Readers may thus provide blog authors with a reward and incentive to continue blogging in the form of their comments, whereby blog authors receive validation or conversation from an audience of peers (Kawaura et al., 1999).
Commentary can help create a sense of community and social support, while simultaneously providing opportunities to relieve feelings of isolation and alienation (Dickey, 2004). Indeed a social and conversational focus can be a primary motivation for some bloggers who use their blogs to maintain or even grow their social networks (Stefanone & Jang, 2008).

Online commenting and feedback appear to have the ability to play a major role in global well-being and social self-esteem, with positive evaluations from others boosting these factors (Harter, 1999). Valkenburg, Peter, and Schouten (2006) using a sample of 881 Dutch adolescent social networkers ($M$ age=14.8 years, $SD$=2.7 years) examined the effects of feedback on social networking websites and found that frequent use of the sites was related to greater relationship formation and larger amounts of feedback. This feedback was positive most or all of the time for 78% of the sample in the study, and this positive feedback in turn positively impacted on both emotional well-being and social self-esteem. Negative feedback had the opposite effect and decreased well-being, but it was only frequent for 7% of the sample. Thus for the majority of users their online experience was positive and resulted in increased social and emotional well-being. Similarly, with blogs positive interactions have been described as significantly more frequent than negative interactions, as reading blogs is voluntary and blogs must be intentionally sought out by the reader (Trevino, 2005). The impact of feedback may be further amplified by the recipient if a blogger perceives their online audience (of unknown proportions) to be larger than it actually is (Elkind & Bowen, 1979; Harter, 1999). Harter's (1999) model of enhanced well-being through positive feedback and increased social self-esteem can be seen in Figure 4.4, and has been adapted by the author for the specific application of blogging.
Figure 4.4: An adapted model of enhanced well-being through blogging.

It should be noted that social integration and community formation can have negative effects on well-being. Where individuals are in out-groups they tend to either come closer towards social norms, or to become further polarized in their beliefs. Individuals may use blogs to find peers who will affirm their socially unacceptable beliefs or values. For example there are blogs on self-harm and thinness which perpetuate injurious behaviors and eating disorders. These online supports may supplant good health advice provided in FTF life by family and friends, even if they provide social support to the participants.

4.3 Emotional Consequences of Internet Usage and Blogging

4.3.1 Problematic Internet Usage and Negative Affect

Problematic internet usage has been described as when an individual spends excessive amounts of time on the internet resulting in negative physical or psychosocial effects (Morahan-Martin & Schumacher, 2000; Young, 1997). Song, LaRose, Eastin and Lin (2004) pointed out that research into problematic internet usage is controversial due to differing definitions of what is pathological, a heavy reliance on self-ratings, and a very low rate of serious life consequences as a result of online behavior.
While numerous studies have found an association between problematic internet usage and depressive symptomatology (Kraut et al., 1998; Özcan & Buzlu, 2007), whether depression is a cause of problematic usage or an effect of said usage is still largely undetermined. Currently the majority perspective is that depressed and lonely individuals are drawn to the internet for distraction or relief. As discussed previously, internet users with higher levels of loneliness and depression appear to spend more time on the internet (Kraut et al., 1998; Papacharissi & Rubin, 2000).

Ceyhan and Ceyhan (2008) found both loneliness and depression predicted overuse of the internet, and suggested that dependence may be heightened by the use of the internet for managing negative affect. This has potential consequences in terms of blogging behavior. Baker and Moore (2008b) found that individuals who scored higher on measures of psychological distress were more likely to express an intention to blog. This suggests that some individuals may be attracted to blogging because they are experiencing distress and choose to use it as a coping mechanism.

4.3.2 Journaling and Emotional Well-being

While there has been significant research into the use of pen and paper diaries for tasks such as emotional expression, reflection, and history keeping, there has been less research into the psychosocial effects of these tasks for bloggers (Baker & Moore, 2008a). Because many aspects of blogs and pen and paper diaries overlap it may be helpful to first consider research on therapeutic writing relating to emotional well-being, and then to examine the similarities and differences between these two forms of expression.

There is a substantial body of research on the use of journal writing as a therapeutic tool. The use of journaling as a tool for coping seems well supported (Bonck & Gray, 2005; Few & Bell-Scott, 2002), with most articles suggesting journaling can lead to significant improvements in an author’s physical health, psychological well-being, psychological functioning and overall functioning (Smyth, 1998). One aspect of journaling which appears to be effective at reducing psychological distress is using diaries as an emotional outlet, where an author writes to vent, describe painful experiences, and express a range of emotions ranging from anger to grief to relief (Griffith & Frieden, 2000; L'Abate, 1991; Macnab, Beckett,
Accordingly, journaling and therapeutic writing tasks have been shown to be useful in reducing symptomatology for a range of affective (Barry & Singer, 2001; Lepore, 1997; Lepore, Silver, Wortman, & Wayment, 1996; Rabinor, 1991; Smith, Leenerts, & Gajewski, 2003) and anxiety spectrum symptoms (Barry & Singer, 2001; Burt, 1994; Largo-Marsh & Spates, 2002; Rabinor, 1991). More specifically therapeutic writing has been used to help treat major and reactive depression (Lepore, 1997; Lepore et al., 1996; Smith et al., 2003), eating disorders (Rabinor, 1991), generalized and social anxiety (Burt, 1994; Sgoutas-Emch & Johnson, 1998), and acute and post-traumatic stress disorder symptomatology (Barry & Singer, 2001; Largo-Marsh & Spates, 2002). It appears that writing about disturbing incidents can reduce physiological anxiety symptoms and negative thought patterns. Thus written emotional expression has the potential to effect significant changes in terms of emotional well-being.

Pennebaker and Chung (in press), in a review of the literature, identified a number of mechanisms through which expressive writing might provide physical and psychological benefits. Writing can help people transcend social inhibition, whereby they feel more comfortable overcoming real-world inhibitory barriers. Writing can help individuals express emotions and name them, thus facilitating cognitive processing and emotional and intellectual integration of experiences. In particular, identifying and labeling primitive pre-verbal emotional functions can then enable an author to utilize higher pre-frontal cognitive functions and allow them to conceptually process their experiences. Additionally writing about difficult situations repeatedly can lead to the habituation of adverse emotions. Writing can allow an author to construct a story or narrative, organizing events and giving memory structure. Consequently constructing a story can help promote insight and understanding. It can also help an individual change their perspective, or step back and get the bigger picture. This can ultimately result in major changes in life direction. Finally, putting emotional experiences into writing can help facilitate this same expression interpersonally as the individual now has the language to share what has happened for them. Pennebaker and Chung point out that research suggests keeping a secret from a social network may actually be more harmful than lacking social support altogether, and the facilitation of communication can be of significant benefit.
Journals have also been described as helpful for planning, evaluating, and reflecting. Several studies have suggested that individuals who maintain a journal benefit from increased coping skills resulting from an enhanced ability to plan and organize their lives and thoughts (Macnab et al., 1998; Sgoutas-Emch & Johnson, 1998). Zeiger (1994) highlighted the potential for a journal to be a safe place where individuals can evaluate, reflect, and gain insight on their life. Thus as a reflective tool, where individuals are able to express themselves emotionally, articulate their wants and needs, and then plan for the future, journals appear to have the potential to be valuable coping tools (Sgoutas-Emch & Johnson, 1998).

Personal journal blogs have been described as possessing similar capacities and qualities as therapeutic pen and paper journals. Fullwood et al. (2009) found that emotional expression and venting were primary motivations for many bloggers, and particularly for older bloggers. Nardi et al. (2004) and Jacobs (2003) both described blogs as cathartic tools, where authors could respond to daily experiences as well as ongoing and emotionally charged personal situations. Gumbrecht (2004) likened blogs to pen and paper journals as a safe space to vent emotions. In terms of gender roles, emotion rich personal journal blogs are described as having a female authorial style when linguistically analyzed (Herring & Paolillo, 2006). Likewise, in terms of planning, evaluating and reflecting blogs have also been described as having similar attributes. Blood (2000) and Doctorow (2002) described blogs as being helpful for thinking, learning, and organizing thoughts.

It should be noted that while most research on journaling and blogging has suggested it can be used as a positive mechanism for emotional growth and well-being, the internet also has the potential to facilitate patterns of negative cognitions and the expression of hopelessness, helplessness, and anger. As mentioned previously, in early internet research there were concerns that websites intended for distressed individuals might have a polarizing effect, with websites such as message boards for suicidal individuals resulting in mass suicides (Eichenberg, 2008). Despite these concerns, recent research suggests the opposite is usually the case with these sites actually becoming hotspots for social connections and support (Eichenberg, 2008). Indeed the majority of users of suicide message boards used them for constructive purposes such as sharing problems, empathic communication,
social support, and increasing social integration (Eichenberg, 2008; Miller & Gergen, 1998)

4.3.3 Blogs as a Social Extension of Journaling

While journal writing can provide an isolated expression of emotion (Smyth, 1998), blogs have the potential to provide the author with both the therapy of writing, and a secondary gain through the ability to simultaneously communicate personal matters within their support network. Consequently, blogs have the potential to act as a form of social networking and support, and thus blogs may have therapeutic capacities that overlap with or diverge from those of a pen and paper journal.

While content in traditional journals is often treated as private, many blog posts are publicly available and even searchable. Increasingly in the ‘digital age’ internet researchers have noticed that people are becoming more comfortable with decreased privacy (Davies, 1995). Many personal journal bloggers appear to be extremely comfortable with decreased privacy, disclosing intimate details from their private lives voluntarily. Indeed many blogs appear similar in content to what one would expect in a pen and paper diary (Miura & Yamashita, 2007), yet blogs are potentially available to be read by millions on the web (Fullwood et al., 2009). This suggests underlying factors more important to bloggers than privacy would motivate and reward bloggers to disclose personal information publically.

One potential reason bloggers may self-disclose so much is due to the communication factors described in Section 2.5 (p. 20). Blogs may reduce the social constraints that hinder people from discussing distressing events in their life, by providing an environment where it is appropriate to share inner thoughts and feelings (Lepore et al., 1996), thus serving as an important outlet for the expression of emotions and frustrations (Hara & Kling, 2000). Reduced social presence and cues can help facilitate authors to communicate personal issues and challenges which may be uncomfortable to express in FTF life (Fullwood et al., 2009). In this sense, blogs may transcend the therapeutic value of FTF communication, in allowing authors to communicate subject matter they might otherwise be unable to express in ‘immediate’ social interaction such as FTF situations, telephone calls, and instant messages (Gumbrecht, 2004). Still, disclosure may be tempered by a
blogger's consideration of their audience while writing a post entries (Herring & Paolillo, 2006).

Some bloggers may view their blogs as a vehicle for emotional and sensitive interpersonal communication, and consequently emotional relief. Many people appear to utilize the internet as communication tool where they emotionally express themselves while simultaneously connecting with others (Seepersad, 2004). Preece and Ghozati (2001) found that people often openly express emotions on line, and in turn can find and express empathy for others. Social support and empathy subsequently can result in lower levels of psychological distress (Berry & Rickwood, 2000). Thus the social capital that online relationships provide may enhance a person's overall well-being rather than diminish it (Quan-Haase & Wellman, 2004). Indeed research on online support networks, where users combine collective knowledge with understanding and support, suggest that increased online social capital can lead to decreased psychological distress and increased well-being (Chung & Kim, 2008; Dunham et al., 1998).

Undoubtedly the internet has the capacity to provide constructive support (Chung & Kim, 2008). Peer commentary has the potential to play a powerful role in emotional well-being for a blogger. While blogging and pen and paper journaling can be similar in content, process, and presentation, the presence of peer commentary is a major deviation from journaling. On the one hand blogs create an opportunity for dialogue that is not available through paper diaries (Gumbrecht, 2004), and thus blogs potentially open themselves up to dimensions of social support, friendship, and positive interaction unavailable to diaries. On the other hand, a blogger allows a reader to comment on their cognitions, emotions, and very identity (Jacobs, 2003; Serfaty, 2004; Snider, 2003). This can put the blogger in a potentially vulnerable situation, where they are at the mercy of their audience's feedback. It appears, however, that the vast majority of blog interactions are positive (Trevino, 2005), possibly because blog audiences have to voluntarily read and respond to entries leading to a self-selected sample of interested and motivated respondents. Indeed, one major motivation for some blog users, particularly older users, is the desire to help others and provide information to them (Hollengaugh, 2011). This type of positive focus lends itself to provision of positive and supportive
feedback. This is particularly the case in specialty support blogs (Chung & Kim, 2008), such as blogs for people with a particular illness.

In summary, blogs have the capacity to be tools of both self-expression and self-empowerment (Blood, 2002). As a result, bloggers may experience improvements in emotional well-being, particularly where they have social or interpersonal difficulties in FTF life (Fullwood et al., 2009). Blogs may be used by individuals with insufficient FTF social networks to buffer against stress (Cohen & Wills, 1985), with these users seeking out additional social supports on the internet (Fullwood et al., 2009). Alternatively, as the introduction pointed out (see Chapter 1), cyberspace can be somewhat permanent and the things people write today can come back and haunt them. It appears that intentionally or unintentionally the functional value of blogging may outweigh these risks for numerous users.
4.4 Summary

While initial research on the internet focused on negative aspects such as social displacement and social disconnection, more recent literature has largely examined how the internet can result in positive psychosocial changes. Blogs may be useful in helping individuals foster existing social connections and create new ones, regardless of their initial level of social competence. As well, research on therapeutic writing suggests written expression can have positive impacts on emotional well-being. The blog platform may thus be capable of satisfying both emotional needs through the therapeutic writing processes of record keeping, planning, venting and reflecting that therapeutic writing involve, as well as social needs through enabling an author to receive feedback and comments from readers which can acknowledgement and validate the author’s cognitions, emotions and sense of self (Snider, 2003).

While research on therapeutic writing and social connectedness is generally quite positive in terms of well-being, this literature may not be relevant to all blogs. As discussed in Chapter 2 (p. 5), Herring, Scheidt, Wright, and Bonus (2005) point out that there is little research on the actual content or prevalence of varying types of blogs. Further Herring et al. proposed that blogs may result in significant social interactions not measurable by counts of comments alone, and that further research into social well-being was warranted. Miura and Yamashita (2007) echoed the need to examine the effects of blogging on psychological well-being and loneliness, suggesting combined social and emotional processes are at play. They suggested that self-understanding and acceptance may be gained from blogging, and in turn have feed-on effects in terms of social and emotional well-being.

The existing literature on the psychosocial effects of blogging is limited to studies which examine the sample population of bloggers as a whole. There is little research examining differing types of blogs in terms of social interactions and emotional well-being. Baker and Moore (2008a, 2008b) found that social networkers keeping personal journal blogs showed improvements in affect and social well-being, and Hollengaugh (2011) identified a conscious desire by bloggers to help others, but a gap exists in the literature regarding psychosocial changes in authors depending on their blog's content and social interaction. In the present thesis Study 1 (Chapter 6, p.107) examines some of the key mechanisms for social
interaction in blogging from a qualitative perspective, and Study 3 (Chapter 8, p. 199) examines how the content of a blog might influence the psychosocial outcomes for an author. Are the benefits of blogging limited to blogs with higher levels of personal or emotive content, or do topical bloggers benefit as well?
5 Methodology

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5.1 Overview

This chapter provides an overview of the three studies conducted in the current thesis. It outlines the aims of the present research, describes the key measures utilized in the research, and outlines the different methodologies and data-gathering procedures utilized. Briefly, in Study 1 an opportunistic sample was used to qualitatively examine why people blog and how it affects them. In Study 2, bloggers and social networkers were surveyed regarding their motivations for blogging, blog content and psychosocial well-being. In Study 3, the Study 2 sample was followed up to assess any changes in well-being after 250 days of blogging or social networking. Results for Study 1 are presented in Chapter 6. In Chapter 7, data on motivations collected in Study 2 were examined from a quantitative perspective using a U&G framework. A motivation measure was created and validated by comparing bloggers with social network users. In Chapter 8, longitudinal data collected across Studies 2 and 3 was examined to assess the psychological effects of blogging in relation to different types of blogs.
5.2 Summary of Aims and Research Questions

Use of the internet is now a key feature of modern life. Because it has developed so rapidly, research on social and psychological aspects of internet use has lagged well behind technological changes in the medium. Studies which have been conducted tend to focus on the negative aspects of these new communication channels, for example studies of internet addiction. The psychological and social predictors and outcomes of new media, both positive and negative, are ripe to be researched. Blogging in particular is of interest because of its similarities (and differences) to the well-studied off-line phenomenon of keeping a diary. This section reviews the overall aims and research questions for the present thesis stemming from the review of the current literature presented in Chapters 2 through 4. Additional specific hypotheses and aims developed as the thesis progressed are described in Chapters 6 to 8.

Hollengaugh (2011) pointed out that while there are significant bodies of research on topical blogs, there is a need for more research on individual personal journal blogs. One area of study could be replicating many of the early studies on personal journal blogging which were conducted when internet usage was less prevalent and authors more commonly utilized smaller sample sizes or less rigorous research methodologies (Trammell, Williams et al., 2006). Another focus of research could be to continue researching new areas of blogging with increasing specificity. A general aim of the present thesis was to span these domains, revisiting and amalgamating previous research and using it to explore new dimensions of blog usage and the means through which blogs may be associated with psychological changes in their authors. The overarching question in the present thesis revolves around why people choose to blog, what they blog about, and how this choice affects them.

Numerous studies suggest blogs have the potential to exact psychological changes in authors, but the means through which this occurs are still under investigation. Baker and Moore (2008a, 2008b) found that social networkers keeping personal journal blogs showed improvements in mood and social well-being. Herring et al. (2005) proposed that blogs may result in significant social interactions not measurable by counts of comments alone, and suggested that further research into social well-being was warranted. Miura and Yamashita (2007)
proposed blogs may enhance emotional well-being by decreasing loneliness and promoting self-understanding and acceptance.

Studies on the psychosocial effects of blogging have been limited in specificity of populations (e.g., classifications of different types of bloggers have not been utilized). For example, there is little research examining emotional changes in bloggers based on the types of social interaction they experience or the topics authors write about. The content an author writes about may play a large role in the type of audience and feedback they receive, but to date a gap exists in the literature regarding psychosocial changes in authors relative to blog content or social interaction.

The following research question was thus developed to explore the social nature of the blog:

**RQ1**: How do people communicate and make social connections through blogging? Do bloggers perceive emotional and social changes in well-being as a result of their activities?

A second important area of research involves examining the motivations for blogging. Further research needs to be conducted into the antecedents of, and motivations for, blogging (Kaye, 2005), both to examine why people blog and to provide a platform for research into how individual needs and characteristics alter the usage and effects of this medium. While researchers have looked at motivations for using the internet in general, more research is needed to examine why individuals choose certain applications to satisfy their needs (Hollengaugh, 2011). A number of authors have identified potential motivations for blogging (see Chapter 3, p.34, for more detail). Nevertheless, the lack of a comprehensive, valid, and reliable measures of motivation and generally small sample sizes have hindered the generalizability of research in this area.

In addition to the value of a more comprehensive measure of blogging motivations, it would be useful to distinguish between different internet applications in terms of a U&G framework. In particular, Hollengaugh (2011) highlighted a lack of research comparing blogs and SNSs (Social Network Sites) despite a number of similar functionalities. At present there is no research suggesting that bloggers and
SNS users have similar or different motivations, uses, or psychosocial effects from using these media. Thus there is a need to examine motivations in relation to other media applications such as Facebook.com, and to differentiate what vehicles users are choosing to satisfy differing motivations (Hollengaugh, 2011). Blogs are closely related to SNSs, and often exist on SNSs, so comparing blogs and SNS sites is of particular interest.

The following research questions and aim were developed from the literature reviewed in Chapter 3 to explore the role of motivation in blogging and how blog motivations relate to related social media:

**RQ2:** Which motivations are strongest for bloggers? Do blogger motivations differ according to the age, gender and psychosocial characteristics of bloggers?

**RQ3:** How do the motivations of bloggers compare to those of social networkers?

**Aim:** To create a valid and reliable measure of blogging motivation.

Finally, it is of interest to examine how blogging might influence the psychosocial well-being of authors. Baker and Moore (2008a, 2008b) found that new bloggers showed significant improvements in perceived satisfaction with friendship and with other measures of social well-being. No research to date, however, has examined the psychosocial impact of blogging in an existing population of bloggers. Further, what blog authors write about may influence psychosocial outcomes. Herring, Scheidt, Wright, and Bonus (2005) point out that there is little research on the actual content or prevalence of varying types of blogs. No research to date has examined the psychosocial effects of blogging in terms of the content of blog posts. Because a large number of blogs vary in content and topic from post to post (i.e., mixed blogs) (Herring et al., 2005), a more inclusive method of classifying the content of mixed blogs would need to be utilized. The following research question was developed in relation to the psychosocial effects of blogging:

**RQ4:** How does blogging affect the psychosocial well-being of existing bloggers? How does the content a blog author writes about influence the psychosocial outcomes of the author?
5.3 **The Present Research**

Three studies were carried out to explore why people blog, what they blog about, and how it affects them. Each study and the corresponding research questions or aims are briefly described below.

5.3.1 **Study 1 - Why do people blog? An opportunistic qualitative study.**

5.3.1.1 **Description of Study**

The first study was a qualitative study that examined why people blog. In particular it examined some of the reasons people start blogs, and some of the mechanisms bloggers perceived as resulting in emotional and social changes in well-being. The qualitative data utilized was found in response to earlier publications of the author on psychosocial changes after blogging. Publicity from the earlier research created chatter in the blogosphere which was utilized to examine both the validity of the original research findings, as well as why bloggers chose to blog in terms of motivation and psychosocial outcomes.

5.3.1.2 **Research Aims Addressed by Study 1**

RQ1: How do people communicate and make social connections through blogging? Do bloggers perceive emotional and social changes in well-being as a result of their activities?

5.3.2 **Study 2 – Assessment of Blogger Motivation and Baseline Data on Blogger Well-being**

5.3.2.1 **Description of Study**

The second study consisted of two aspects. First, a list of blogger motivations, built on the qualitative motivations identified in Study 1 as well as the greater body of literature on blogging motivation outlined in Chapter 3 (p. 34), was developed into a blogging motivation scale. This scale was subsequently tested for reliability, then validated by examining differences in motivations between bloggers and social network users, and also by examining how motivations were linked to age, gender, and measures of psychosocial well-being. These data are presented in Chapter 7.
The second part of Study 2 was the collection of baseline data on blogger well-being. These data are presented along with follow-up data, in Chapter 8.

5.3.2.2 Research Aims Addressed by Study 2

RQ2: Which motivations are strongest for bloggers? Do blogger motivations differ according to the age, gender and psychosocial characteristics of bloggers?

RQ3: How do the motivations of bloggers compare to those of social networkers?

Aims: To create a valid and reliable measure of blogging motivation.

To collect baseline data for a follow-up study of blogger well-being.

5.3.3 Study 3 - Evaluating the Effects of Blogging

5.3.3.1 Description of Study

The third study examined changes in psychosocial well-being for existing bloggers over a period of 250 days. First, changes in psychosocial well-being in a repeated sample of bloggers and social networkers were examined. Then psychosocial changes were further explored in relation to different blog types. Personal and topical content were examined concurrently across blogs and four blogging groups were created to represent personal bloggers, topical bloggers, combined personal and topical bloggers, and inert bloggers (who posted minimal content of either type). These groups were used as a basis for examining whether the content an author chooses to write about is associated with their psychological well-being.

5.3.3.2 Research Aims Addressed by Study 3

RQ4: How does blogging affect the psychosocial well-being of existing bloggers? How does the content a blog author writes about influence the psychosocial outcomes of the author?
5.4 **Overview of Samples and Data Collection**

5.4.1 **Overview**

This section provides an overview of the samples used in the thesis and how they were collected. More specific details are presented in subsequent chapters. Two samples were used in the present research. The first sample was an opportunistic sample of bloggers who commented on the author’s previous research. The qualitative data they provided were used in Study 1. The second sample was composed of bloggers and social networkers who were recruited using online advertisements and surveyed at two time points. Upon recruitment, these participants completed an initial survey about their blogging and personal characteristics. After 250 days elapsed, participants completed a follow-up survey. The quantitative data gathered at these time points were utilized in both Study 2 and Study 3. An overview of the data collected in each study is presented in Table 5.1.

<table>
<thead>
<tr>
<th>Study</th>
<th>Data type</th>
<th>Recruitment</th>
<th>Bloggers</th>
<th>SNS</th>
<th>Total</th>
<th>Data presented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td>Qualitative</td>
<td>Extant Data</td>
<td>289</td>
<td>0</td>
<td>289</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>Study 2</td>
<td>Quantitative</td>
<td>Online Advertisements</td>
<td>225</td>
<td>378</td>
<td>603</td>
<td>Chapter 7,8</td>
</tr>
<tr>
<td>Study 3</td>
<td>Quantitative</td>
<td>Email Follow-up</td>
<td>90</td>
<td>118</td>
<td>208</td>
<td>Chapter 8</td>
</tr>
</tbody>
</table>

5.4.2 **Study 1 (Qualitative)**

5.4.2.1 **Sampling Method**

Data was gathered by searching for blogs commenting on the author's previous research (Baker & Moore, 2008a, 2008b). Over a period of three weeks in 2008 searches were conducted using the major online blog search engines available at the time. Various terms were used (e.g., 'blog', 'depression') to locate postings referencing the media releases to the blog research. In all, 167 English-language sources were found yielding 487 posts and comments from 289 blog users (see Section 6.4, p. 112 for more information on the sampling method).
5.4.2.2  Participant Demographics

The sources, that is blogs, each contained comments from the blog owner and where applicable people communicating with the blog owner, so individual sources could contain comments from more than one unique user. These comments were grouped by user in individual word files, resulting in files for 289 unique users commenting on the findings of the research. Users’ comments were then imported into NVivo Version 7 for analysis. Because the data was extant, individual demographic information was not available.

5.4.3  Study 2 (Time 1 quantitative data)

5.4.3.1  Sampling Method

Participants were recruited via paid advertisements on the social networking site Facebook.com. These advertisements were set to target Australian and American users over the age of 18, and ran for a period of two months. Volunteer participants who clicked on the advertisements were redirected to a survey website where they were presented with an Explanatory Statement and Consent page for an online self-administered self-report survey (see Appendix II, page 273). Participants who consented were asked to provide demographic information and to fill out a series of measures described in Section 5.5.

5.4.3.2  Participant Demographics

While the advertisements generated 813 responses, surveys missing more than 10% of their data were discarded. A total of 603 respondents (237 males and 366 females) were retained for the study. Participants ranged in age from 16 to 69 years ($M=29.88$, $SD=11.30$). The sample comprised 231 individuals who had never blogged but who social networked, 147 former bloggers, 95 new bloggers, and 130 experienced bloggers. Section 7.2.4.2 (p. 164) provides more information about participant demographics.
5.4.4 Study 3 (Time 2 quantitative data)

5.4.4.1 Sampling Method

Participants recruited during Study 2 were asked to provide an email address so that they could be contacted by email again after 250 days. All participants who consented were automatically contacted by email after this time period and asked to complete a follow-up survey. Automated emails sent to participants included a unique link for each user with a user code that automatically matched new data collected with the data gathered during Study 2, thus minimizing the risk of experimenter error during the data collection process (see Appendix II, p. 284, for an example of the email). Participants who clicked on the survey link were connected to a webpage containing a second questionnaire (see Appendix II, page 284). The follow-up questionnaire contained a range of measures described in Section 5.5.

Prior to data collection ethics approval was obtained for Studies 2 and 3 (see Appendix I, page 267). One of the key ethical issues that needed to be addressed involved the longitudinal nature of Study 3, whereby participants during Study 2 needed to be re-contacted by email with a follow-up survey after 250 days, thus creating a condition wherein participants were potentially identifiable through their email addresses. In order to protect the anonymity of participants a custom-built survey was created which (a) stored participants' emails in an encrypted form in the survey database during Study 2, (b) automated the process of emailing and re-surveying participants during Study 3 so that the researcher did not need to access participants' email addresses, (c) automated the process of matching data files from Study 2 and Study 3, reducing the risk of experimenter error, and (d) outputted survey data without participant contact information. These measures helped protect participant's anonymity and the security of their data.

5.4.4.2 Participant Demographics

Of the original 603 participants recruited during Study 2, 223 participants completed the follow-up survey, (see Chapter 8, p. 203, for response rate details). Of these only 208 cases were valid after data preparation resulting in a sample of 90 bloggers and 118 social networkers (see Section 8.4.4, p. 209, for more detail). Participants were
31 male and 59 female bloggers who ranged in age between 18 and 65 years ($M = 31.62, SD = 12.00$), and 49 male and 69 female social network site users who ranged in age between 18 and 58 years ($M = 29.14, SD = 10.30$). Section 8.4.1 (p. 203) provides more detail regarding this sample.

5.5 Measures

In Study 1 data collection was opportunistic so researcher-generated measures were not used. A variety of demographic questions and psychometric devices were used in Studies 2 and 3. These measured areas including social well-being, emotional well-being, personal characteristics, and motivation. A summary of the measures is provided below in Table 5.2, with a more detailed description of the measures, when they were collected, and when they were utilized, provided in the following sections.

Table 5.2
*The Measures collected in each of the Three Studies*

<table>
<thead>
<tr>
<th>Measure</th>
<th>Utilized</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Study 1</td>
</tr>
<tr>
<td>Opportunistic Extant Data</td>
<td></td>
</tr>
<tr>
<td>Demographic Items</td>
<td>X</td>
</tr>
<tr>
<td>Blogging Motivation Items</td>
<td>X</td>
</tr>
<tr>
<td>Blog Content Items</td>
<td></td>
</tr>
<tr>
<td>Depression, Anxiety, Stress Scale-21&lt;sup&gt;a&lt;/sup&gt;</td>
<td>X</td>
</tr>
<tr>
<td>Loneliness Scale&lt;sup&gt;b&lt;/sup&gt;</td>
<td>X</td>
</tr>
<tr>
<td>Social Provisions Scale&lt;sup&gt;c&lt;/sup&gt;</td>
<td>X</td>
</tr>
<tr>
<td>Internet Social Capital Scale&lt;sup&gt;d&lt;/sup&gt;</td>
<td>X</td>
</tr>
<tr>
<td>Social Phobia Inventory&lt;sup&gt;e&lt;/sup&gt;</td>
<td>X</td>
</tr>
</tbody>
</table>

<sup>a</sup>Lovibond & Lovibond, 1995; <sup>b</sup>De Jong Gierveld & Kamphuis, 1985; <sup>c</sup>Cutrona & Russell, 1987; <sup>d</sup>Williams, 2006; <sup>e</sup>Connor et al., 2000

5.5.1 Demographic Items

*Collected in Studies 2 and 3*

During Study 2 participants were asked their age, gender, highest level of education, current employment situation, current relationship status, current living arrangements, and country of origin (see Section 12.1.2, p. 275). Additionally participants were asked about their internet access and internet usage, whether they
had blogged before, and whether they had kept a pen and paper journal in the past. Participants were asked about their current blogging status (never blogged, former blogger but not currently blogging, new blogger for less than 12 months, or experienced blogger for more than 12 months) in order to compare the motivations of different groups.

During Study 3 participants currently keeping a blog were asked about the characteristics of their primary blog, including where they blogged and how much time they spent blogging (see Section 12.2.3, p. 286).

### 5.5.2 Blogging Motivation Items

*Collected in Study 2*

Participants rated the importance of 51 motivations for blogging on a 3 point Likert type scale ranging from 1 (Not at all a reason) to 3 (A main reason) as per McCullagh’s (2008) study. Non-bloggers were asked to rate how important each motivation was in relation to their social networking. A full description of how these 51 items were generated and developed into a blogging motivation scale is described in Chapter 7 (p. 150). As described in Chapter 7, items were subjected to a principle components analysis, subscales were generated and reliability and validity analyses conducted.

### 5.5.3 Blog Content Measure

*Collected in Study 3*

The Blog Content Measure assesses the frequency with which bloggers post personal and topical content on their blogs. Rather than observing each blog and considering each entry on an individual basis, blog content was assessed by having bloggers self-rate the frequency with which they write about 12 broad groupings of topics using a 5-point Likert-type scale ranging from (1) Never to (5) Almost Always. Subscale scores are calculated by summing the total scores for the personal and topical items respectively, producing scales which can range from 3 to 15 for personal content and 9 to 45 for topical content. Higher scores represent more of the named content type. Items representing potential blog topics were adapted from lists
of blog topics created by Guadagno, Okdie and Eno (2008) and McCullagh (2008) to specify participants' blog content (see Table 5.3).

Table 5.3
*Items Intended to Sample Frequency of Blog Content*

<table>
<thead>
<tr>
<th>How often do you blog on the following topics?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal / Internal Content</strong></td>
</tr>
<tr>
<td>1. Myself(^b) and my experiences(^b)</td>
</tr>
<tr>
<td>2. My relationships(^b)</td>
</tr>
<tr>
<td>3. About family(^b) and friends(^b)</td>
</tr>
<tr>
<td><strong>Topical / External Content</strong></td>
</tr>
<tr>
<td>4. Religion(^a) / Spirituality(^a) / Faith(^a)</td>
</tr>
<tr>
<td>5. Support groups</td>
</tr>
<tr>
<td>6. Social topics</td>
</tr>
<tr>
<td>7. Interests / Hobbies(^a) / Creative works(^b) / Writing(^b)</td>
</tr>
<tr>
<td>8. News(^a) / Current events(^b) / Sports(^b) / Politics(^a,(^b)</td>
</tr>
<tr>
<td>9. Arts / Culture / Entertainment(^a) / Gossip(^a,(^b)</td>
</tr>
<tr>
<td>10. Business(^a) / Technology(^a)</td>
</tr>
<tr>
<td>11. Health (general health, specific illness)(^a)</td>
</tr>
<tr>
<td>12. Education / Academic</td>
</tr>
</tbody>
</table>

\(^a\) item derived from McCullagh, 2008; \(^b\) item derived from Guadagno, Okdie, & Eno, 2008

5.5.4 *Depression Anxiety Stress Scale-21*

*Collected in Studies 2 and 3*

The Depression, Anxiety and Stress Scale-21 (*DASS-21*; Lovibond & Lovibond, 1995) is a 21 item self-report inventory designed to measure the three related states of depression, anxiety and stress or tensions in an individual’s life over the preceding week. Participants respond “Did not apply to me at all”, “Applied to me to some degree, or some of the time”, “Applied to me a considerable degree, or good part of the time”, or “Applied to me very much, or most of the time” on a 4 point Likert-type ranging from 0 to 3 to a series of questions about their emotional state. All items are summed and then doubled to determine total scores for each of the
sub scales, with scores for each subscale ranging between 0 and 42. Higher scores correspond to higher levels of distress.

The DASS-21 is a shorter version of the DASS-42 and was selected in order to reduce the total number of items in the survey. Both scales are based on the tripartite model of anxiety and depression (Clarke & Watson, 1991), in which anxiety (including autonomic arousal and subjective feelings of anxiety) and depression (including anhedonia and negative affect) share a common non-specific general stress factor (which includes difficulty relaxing, irritability, and impatience) (Lovibond & Lovibond, 2004). In a large non-clinical sample ($N=1,794$) the DASS-21 showed good reliability, with a median alpha reliability coefficient of .93 for the Total scale, .88 for Depression, .82 for Anxiety, and .90 for Stress (Henry & Crawford, 2005).

5.5.5 Loneliness Scale

Collected in Studies 2 and 3

The Loneliness Scale (LS; De Jong Gierveld & Kamphuis, 1985; De Jong Gierveld & Van Tilburg, 1999b) is a six item self-report scale measuring perceived levels of social and emotional loneliness. Participants are asked to respond to statements about their relationships with other on a 5 point Likert-type scale ranging from (1) Strongly agree to (5) Strongly Disagree. The scores for three items from each subscale can be summed separately providing subscale scores ranging from 3-15, or combined for an overall loneliness score ranging from 6-30. Higher scores corresponded to higher levels of perceived social, emotional, and overall loneliness.

The LS is based on Weiss’s (1973) two factor model of loneliness. Weiss described emotional loneliness as the feelings of emptiness arises from the absence of close emotional connections such as partners or best friends. Feelings of emotional loneliness often peak after periods of loss such as the death of a good friend, or the separation from a partner (De Jong Gierveld & Van Tilburg, 2006), thus a sample item from the emotional loneliness scale is "I miss having people around". Weiss (1973) described social loneliness, on the other hand, as the absence of a network of social contacts. Feelings of social loneliness might peak after a person moves house or changes schools (De Jong Gierveld & Van Tilburg, 2006),
and thus a sample item from the social loneliness scale is "There are plenty of people I can rely on when I have problems".

The LS is a shortened version of an original 11 item measure aimed at sampling social loneliness (the perceived strength of a social network), emotional loneliness (the perceived presence of intimate relationships) and overall loneliness calculated as a sum of the two dimensions (De Jong Gierveld & Kamphuis, 1985; De Jong Gierveld & Van Tilburg, 1999b). While this scale proved itself as a valid and reliable tool (De Jong Gierveld & Van Tilburg, 1999a; Dykstra & De Jong Gierveld, 2004; Van Baarsen, Snijders, Smit, & Duijn., 2001), the measure was reduced to a 6 item scale in order to provide a more suitable measure for large surveys (De Jong Gierveld & Van Tilburg, 2006), which was the rationale for selecting the shorter version of the measure in the present thesis. Also as its theoretical underpinnings reflect Weiss's (1973) two factor theory of loneliness, the LS was considered a more comprehensive measure than the more widely utilized unidimensional UCLA loneliness scale (Russell, 1996).

The 6 item LS was administered to 3 large sample populations ranging from 2,945-7,244 participants to assess reliability (De Jong Gierveld & Van Tilburg, 2006). The reliability for the overall scale was good, ranging between .70 and .76 in these adult populations. Likewise the reliability of the subscales were suitable ranging from .67 to .74 for emotional loneliness and .69 to .73 for social loneliness. Congruent validity was established with the full original scale (De Jong Gierveld & Van Tilburg, 2006).

5.5.6 Social Provisions Scale
Collected in Studies 2 and 3

The Social Provisions Scale (SPA; Cutrona & Russell, 1987) is a self-administered 24-item self-report inventory that measures a respondent’s perception of general social support. Participants respond “Strongly Disagree”, “Disagree”, “Agree”, or “Strongly Agree” on a 4 point Likert-type scale ranging from 1 to 4 to questions about their perceived social support network. The SPA is composed of six subscales. ‘Social Integration’ measures how much an individual feels they belong to a group of likeminded people with similar interests. ‘Attachment’ assesses affection from romantic partners and family members making it less relevant to the current research in which the focus is on friendship rather than intimacy. ‘Reliable Alliance’ refers to
perceived capacity to count on others for assistance. ‘Reassurance of Worth’ measures how much an individual feels reassured by others about their own skills and abilities. ‘Opportunity for Nurturance’ refers to how much an individual draws satisfactions from their nurturing interactions with others. Finally, ‘Guidance’ refers to how much an individual feels able seeks advice when problem solving. The SPA has a median alpha reliability coefficient of 0.92 (Cutrona & Russell, 1987).

5.5.7 Internet Social Capital Scales  
Collected in Studies 2 and 3

The Internet Social Capital Scales (ISCS; Williams, 2006) are self-report inventories that measure a respondent's level of online and offline bridging and bonding social capital. In the present study, only the online scales were used. Online bonding social capital is a measure of social connection between individuals who have shared backgrounds and whose relationships are characterized by similarity and depth. Online bridging refers to social connectedness in which individuals form looser links with others of varying backgrounds; the relationships formed acknowledge some common interest but are not intimate (Putnam, 2000).

For both the online bridging and bonding measures, individuals respond to 10 statements using a 5 point Likert-type scale ranging from (1) Strongly Disagree to (5) Strongly Agree. Example bridging items include 'Interacting with people online makes me interested in what people unlike me are thinking' and 'Online I come into contact with new people all the time'. Example bonding items include 'The people I interact with online would share their last dollar with me' and 'The people I interact with online would help me fight an injustice'. The ISCS scales were validated by Williams (2006) on a population of 527 internet users. The online bridging capital scale had a median alpha reliability coefficient of .84 while the online bonding capital scale has an alpha reliability coefficient of .90 (Williams, 2006).

5.5.8 Social Phobia Inventory  
Collected in Studies 2 and 3

The Social Phobia Inventory (SPIN; Connor et al., 2000) is a self-administered 17-item self-report inventory that measures a respondent's level of social anxiety.
Participants respond "Not at all", "A little bit", "Somewhat", Very much", or "Extremely" on a 5 point Likert-type scale from 0 to 4 to questions about their fear of social interactions, avoidance of potentially distressing situations, and physiological arousal. The SPIN is accordingly composed of three subscales: 'Fear', 'Avoidance', and 'Physiological Symptoms'. The scale was developed to create a more inclusive self-rating scale measuring all three of these dimensions where other brief scales were seen to be insufficiently comprehensive (Connor et al., 2000).

The SPIN has been validated against other measures of social anxiety, physical health, and disability. The SPIN was validated on samples ranging from 44 to 81 participants. The small validation sample is a limitation of the measure. Overall internal consistency measured by Cronbach's $\alpha$ for the measure ranged from 0.87 to 0.94 in clinical populations and from 0.82 to 0.90 for non-clinical populations.

**5.6 Overall Methodology**

Individual methodologies are described in each study in Chapters 6, 7 and 8. Overall the research encompassed cross sectional (chapters 6 and 7) and longitudinal methodologies (Chapter 8) as well as qualitative (Chapter 6) and quantitative (Chapters 7 and 8) data. Study 1 data was extant in nature, while the data used in Studies 2 and 3 was elicited by the author. Utilizing this variety of sampling techniques, methodologies, and analyses was considered to provide more robust findings, through the possibilities of triangulation of results.

**5.7 Summary**

This chapter outlined the aims of the present research and provided an overview of the methodologies used in the three studies. The chapter reported the different recruitment methods used to gather participants, the major psychometric measures used in the questionnaires and their properties, and gave brief details of participant demographics.
6 Study 1 - Why do People Blog? An Opportunistic Qualitative Study

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6.1 Overview

I conducted research on the characteristics of intending bloggers and the psychosocial effects of blogging as part of my Masters of Psychology (Counselling) degree. The results were written up for publication and two articles published, both in 2008 (Baker & Moore, 2008a, 2008b) (see Appendix IV, p. 307). The first article (Baker & Moore, 2008b) attracted considerable multinational media attention with over 70 incidents of press coverage in the first 3 weeks after publication. As a consequence commentary on the research emerged on 167 blogs in the same time period. Many of the comments concerned the validity of the research findings, and thus a unique opportunity arose to re-evaluate the research outcomes based on the unsolicited responses posted by bloggers. In addition to providing an opportunity to evaluate the level of agreement or disagreement of bloggers with the Masters study, bloggers' comments included in-depth discussions about the psychosocial effects of blogging. Thus comment on the Masters study provided data for a first study in the current PhD, in which feedback from bloggers about their motives for blogging could be analyzed qualitatively. This chapter includes a brief review of the findings of Baker and Moore (2008a, 2008b) by way of introduction, along with the aims, methodology, and results of this opportunistic study which paved the way for subsequent studies in the thesis.
6.2 The Baker & Moore Research

This research, of which the results were reported in two publications, was among the first to examine the psychosocial characteristics of intending bloggers and the effects of blog usage, and this may be the reason the publications attracted so much media attention. Its overarching goal was to examine what might motivate bloggers to spend hours in front of a computer screen writing about opinions, thoughts, feelings and events despite being written by members of a population that gave up letter writing generations ago. Was blogging similar to pen and paper journaling and other forms of emotive written expression in terms of emotional benefits, or were there novel social benefits not available in offline versions of diaries?

Baker and Moore (2008a, 2008b) argued that as blogging can be seen as at least in part analogous to keeping a diary or journal, similar benefits should ensue. Section 4.3.2 (p. 82) highlighted studies on journal writing which have shown significant improvements in an author’s psychological well-being are possible through written expression; additionally journals can be used as a coping tool allowing the author to utilize planning and organizational skills, reflect on life and reduce distress through venting and processing painful emotions (Bonck & Gray, 2005; Few & Bell-Scott, 2002; Macnab et al., 1998; Smyth, 1998; Zeiger, 1994). The major difference between journaling and blogging is of course that blogging involves an audience while keeping a diary is essentially a private activity. The blogging audience means that this form of writing has the potential to enhance social relationships through the provision of support, development of friendship and links with a community of similar interests (see Chapter 4.2.5). This social aspect may also enhance personal well-being through acknowledgement and feedback (Jacobs, 2003; Nardi et al., 2004; Serfaty, 2004; Snider, 2003; Trevino, 2005).

There were two main aims of the research. The first was to examine differences in the psychosocial characteristics between new social network users on MySpace.com who intended to begin keeping a blog on the site and those who did not. The second aim was to evaluate whether those users who actually started a blog (in addition to their new social networking page) experienced differences in psychosocial well-being compared to users who only social networked.
The research methodology involved contacting new MySpace.com users identified through using the search feature on the website. Participants were asked to participate in a repeated measures study by completing two online surveys, once immediately after joining and a second study after using the website for two months. MySpace.com was selected because in 2006-2007, Facebook.com had not yet reached the level of primacy it maintains today and because MySpace.com provided social networkers with easy to use blog software which integrated into the social network page making it simple for social networkers to start a blog and providing two clear groups for comparison.

Participants in the study were 134 new MySpace users. There were differences between social networkers and intending bloggers. Intending bloggers scored higher on psychological distress, as well as on the coping strategies of self-blame and venting than social networkers who did not intend to start a blog (Baker & Moore, 2008b). They also scored lower than non-blogging social networkers on social integration and satisfaction with their number of friends, both online and offline. It was suggested that intending bloggers may use their online writing as a mechanism for coping with distress, particularly in situations where they feel inadequately linked with social supports or networks, and particularly among those with emotion-focused coping strategies such as venting.

A follow-up of the sample (Baker & Moore, 2008a) showed that both bloggers and non-bloggers were less distressed two months after joining the site. Bloggers had, however, made extra psychosocial gains, demonstrating significant improvements compared to non-bloggers on reliable alliance (trust in others), social integration and friendship satisfaction, suggesting that blogging can have beneficial effects on well-being through perceived social support. This social support could take a number of forms; For example old friends may re-contact the blogger, new friends may be made through interest in the blog content, empathy with the blogger’s opinions may be expressed, or helpful advice given. Bloggers’ perception of increased social support would presumably be heightened by readers’ comments on the blog, although there are other possibilities, for example a blogger may feel better able to relate to off-line friends if issues are ‘rehearsed’ online.

Because millions of people blog (Lenhart & Madden, 2007), and the motivations and effects of blogging had not been studied in depth, there was substantial media
coverage following the publication of the first of these studies (Baker & Moore, 2008b). Within a period of a few weeks after the release of the publication there were over 70 incidents of press coverage in 7 countries, plus dozens of radio and television interviews with the first author, in which the results of both studies were presented. The media coverage resulted, in turn, in substantial discussion on blog and message board postings. These comments by bloggers on the Baker and Moore research presented an interesting research opportunity. The responses to the research were in a sense analogous to the way that feedback to bloggers provides the opportunity to support, challenge or expand the bloggers’ opinions and frameworks. The major aim of the original research study had been to examine the psychosocial effects of blogging; feedback on the research from bloggers themselves gave the opportunity to validate or modify conclusions in the light of the lived experiences of another sample of bloggers. By utilizing the unsolicited responses of bloggers to our research findings, a new round of research could thus be undertaken informed by users of blogging technologies. The following qualitative study provides an analyses of bloggers' responses to the Baker and Moore research.

### 6.3 Aims of Study 1: Qualitative Study

The main research questions in Study 1 were 'Why do people blog?' and 'How does blogging affect them?'. The aim of the present study was to utilize the responses of actual bloggers to the initial research on social connectedness, satisfaction with friendship, and psychological distress among bloggers in order to:

(a) evaluate the extent of blogger agreement or disagreement with the Baker and Moore research findings, as a means of research feedback and partial validation, and

(b) analyze the unsolicited blogger responses to the Baker and Moore research for themes in relation to the psychosocial outcomes of blogging, to shed further light on the processes of individual and social growth/benefit which might arise from blogging.
6.4 Methodology

6.4.1 Sources of Data

Over a period of three weeks searches were conducted using the major online blog search engines available at the time, Blogdigger, Google Blog Search, and Ice Rocket Blog Search for references to the research. News articles created after the initial press release (see Appendix V, p. 316) generally shared a number of common key words and thus the terms ‘Baker’, ‘Moore’, ‘Swinburne’, ‘Blog’, and ‘Blogging’ were combined with the terms ‘Research’, ‘Study’, ‘Social’, ‘Depression’, ‘Anxiety’, ‘Stress’, ‘Integration’, ‘Friendship’, and ‘Mood’ to locate postings referencing the media coverage of the blog research. In all 167 English-language blogs were found yielding 487 comments. Many blogs contained feedback from both the blog author and blog readers communicating with the author through the commenting and trackback features. To simplify the process of analysis comments were grouped by user into individual word files. In total 289 unique users posted blog entries or responded to blog entries relating to the Baker and Moore research, and thus a total of 289 individual word files containing each user's comments were imported into NVivo Version 7 for analysis (Sorensen, 2008).

The comments collected from the blogs were a unique form of data, partially elicited, and partially extant in nature. They were elicited in the sense that the authors’ initial quantitative research findings prompted the dialogue and response (Baker & Moore, 2008a, 2008b), and they were extant in that they were unsolicited and the authors were not able to actively shape the construction of the content to further explore emerging themes throughout the data collection (Charmaz, 2006). While it would have been possible through the same mechanism of commenting for the author to elicit further data as themes emerged, this was not undertaken in the present study. This more extant form of feedback from an opportunistic sample was considered sufficient as in many ways it provides more organic and representative data, independent of the authors’ own experiences or opinions (Denzin & Lincoln, 2005). Further observing data in the public domain does not require consent as publication implies consent, but engaging with research participants in the population raises issues of informed consent and subsequently would require formal ethics approval.
6.4.2 Materials

NVivo was selected for analysis of the data due to its ease of use when conducting inductive analysis (Sorensen, 2008). There are several benefits of coding into nodes using NVivo. NVivo allows a user to sort through raw data and to generate “nodes” that describe the current data (e.g., authors can group commentary about the social nature of blogs into a node titled 'social'). Nodes provide a list of quotations and memos for each sub-theme that are easily accessible to the researcher to review and re-sort, and which can be recoded into more or fewer nodes as appropriate (e.g., group two sub-themes into one node, or break one sub-theme into two). Thus a researcher can 'code up' from the existing data, both interpreting data and grouping partial or full comments based on their content. This effectively enables a researcher to interpret the data qualitatively by keeping track of emerging themes and sub-themes, and also quantitatively by examining the amount of content in each node. Nodes can also be utilized as data and subdivided into additional sub-nodes to flush out similarities and differences within a conceptual theme, or into theoretically separate nodes. Nodes also provide concrete quantitative statistics on the number of comments for each sub-theme, and the number of users who have made those comments. The software is thus very useful for tracking and interpreting qualitative data in an organized fashion.

6.4.3 Overall Process

Inductive analysis was conducted in order to examine the comments for emerging themes, drawing from some of the principles of Grounded Theory (Charmaz, 2006; Glaser & Straus, 1967). Inductive analysis was chosen as it allows for the comments to be analyzed without preconceived ideas, and thus themes are designed to fit the comments, rather than force the comments to fit within pre-conceived hypotheses. This is preferable, as while some preconceived themes exist from research already conducted, the purpose of this qualitative evaluation was to expand upon previous notions, refining and redeveloping existing constructs where relevant.
The first step in the analysis involved reading through all of the users’ comments to develop a sense of their content. This process initially occurred through examining quotes line-by-line in order to gain a feel for the data. The use of NVivo software requires that the researched code the data into themes (e.g., aggressive comments, comments about how blog use is therapeutic, etc.). Coding was done by inputting relevant quotations from the sources into ‘nodes’ in NVivo. There were a number of larger ideas and themes that appeared repeatedly in the data, allowing for subsequent focused coding where the coding nodes were changed, eliminated, or divided to better fit the data (Charmaz, 2006; Smith, 2003). The comments were then re-coded from scratch into the 26 sub-themes that had emerged. The data were systematically examined for sub-themes, and comments were sorted into the respective nodes. Where multiple themes were present in a comment, they were coded into multiple nodes. The data were then examined for the number of comments by theme and sub-theme.

When analyzing the data it quickly became obvious that the overarching theme throughout the comments was one of agreement and/or disagreement with the previous research findings. The sources were thus examined to develop a sense of level of agreement. After examining the data for level of agreement, the data was re-examined ab initio (i.e., from scratch) for secondary themes about the general nature of blogging, and a number of themes arose in regards to motivations, benefits, and drawbacks.

Coding frames were developed (see Results) and all comments coded. A colleague read and discussed the category definitions with the researcher, then blind coded approximately 20% (N=100) of comments according to the coding frame. Initial agreement was 92%, Cohen's kappa=.89 (SE=.04). After brief further discussion, agreement lifted to 96%, Cohen's kappa=.94 (SE=.03). All original codings were then re-checked and a small number were recoded. Statements included in the Results, to follow, are exactly as posted on the original blogs, and spelling and grammar errors were left unchanged.

6.5 Results and Discussions
6.5.1 Level of Agreement with Previous Research Findings

The majority of the comments were positive overall and expressed agreement with the Baker and Moore research findings as interpreted by the bloggers from media reports. Some who commented on the research findings did not express a clear opinion. A number of comments were oppositional, and some were hostile in nature. As there were degrees of agreement and disagreement, a continuum of five categories was adopted. These categories were labeled advocating, accepting, neutral, oppositional, and hostile, and are defined below.

Advocating comments were defined as those in which users expressed that their experience while blogging was highly reflective of the research findings.

“Totally believe the better social support and friendship network claim - well actually I agree with all of it! That's me!”

“It makes perfect sense. In real life your acquaintances are often made through circumstance rather than design and are often limited geographically. The web (and social networking more specifically) allows people to form friendships based on common interests and beliefs and allow regular communication irrespective of location. Doesn't everyone feel better after having a conversation with that one friend who 'really gets you', so what if that friend is on the other side of the country (or even the world) and the means of communication is electronic.”

Accepting comments were defined as those in which users expressed more limited personal agreement with the findings, or that the findings while not definitive were plausible in their personal experience.

“While I’m predisposed to want to believe the results, I can’t help wondering about the methodology.”

“I noticed that this was after 2 months of regular blogging. It normally takes way longer than that to pick up some decent enmity towards your fellow
bloggers. I’d like to know how the testing would play out on bloggers who have spent several years fighting The Crusades or the Culture Wars.”

Neutral comments did not express any level of agreement or disagreement with the findings, were unclear in their level of agreement, or commented only indirectly on the research, for example on other possible areas of research to follow up or on peripheral issues.

“Do social networks count as social life?”

“….. I think the story says the follow-up has yet to be published. The article is probably based on a press release in advance of publication. It would be very helpful if such articles included either a live link to the paper, or some sort of footnote summarising the methodology.”

Oppositional comments were those comments that expressed reservations in regards to the research findings, or that expressed disagreement with the findings.

“Really? Personally, I’m feeling anxious, depressed, and stressed because of all the things I’m not getting done because I’m blogging!”

“Blogging keeps you more in the virtual world, and you tell me what this increases your social life?”

Hostile comments were classified as ones that expressed strong disagreement with the research findings, and expressed anger, hatred, or involved bad language.

“James is the STUDENT submitting work for a Unit in Psych 101, and Professor Susan is his lecturer, loaning her Profness to give a greasy slick of ‘authenticity’ in order to lull the subjects into co-operating with this studenty research. Just remember all this if you ever pay money to anybody whose qualification begins with 'psych' - they barely got a 'P' on every one of their 16 Units of study.”
“People do shit like blogging because they like to. Not every single fucking thing in the entire fucking world has to be viewed through the lens of potential solutions to problems. Tell those Swinburne research assholes that PhysioProf says: Fuck You! Cut out this nonsensical douchehoundery and make yourselves useful!”

The tabulated results of the classifications by category of agreement can be seen below in Table 6.1.

<table>
<thead>
<tr>
<th></th>
<th>Advocating</th>
<th>Accepting</th>
<th>Neutral</th>
<th>Oppositional</th>
<th>Hostile</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n=289)</td>
<td>159</td>
<td>71</td>
<td>32</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>55%</td>
<td>25%</td>
<td>11%</td>
<td>6%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Overall the comments were mainly positive and expressed agreement with the research findings. The table indicates that the majority of comments fall into the Advocating category. Together the advocating and accepting comments made up 79.59% of all the comments, while oppositional and hostile comments made up less than 10%. A Chi-square analysis was significant ($\chi^2(4, N=289) = 260.3$, $p < .001$) with residuals indicating a greater than chance number of comments in the advocating and accepting categories and fewer than chance in the other categories.

**Discussion**

These data suggest that the majority of individuals who commented on the Baker and Moore (2008a, 2008b) research agreed that blogging does indeed benefit the blogger in a psychosocial manner. The Baker and Moore research had face validity for this unsolicited new sample of bloggers, particularly evident in the general agreement that blogging leads to expanded social networks and greater social support. Comments suggested that blogging allows marshalling of social support through enabling links with like-minded and empathetic people, regardless of where they live or whether opportunities are available to meet them off-line. Nevertheless questions about methodology (e.g., whether the follow-up period was long enough
in the original research) and the meaning of concepts (e.g., what counts as social
life) suggest a more complex reality, which is explored in detail in Section 6.5.2, to
follow, on psychosocial effects of blogging. Oppositional comments indicate other
interesting dimensions to the blogging experience, such that it removes individuals
‘from the real world’. The implication is that this has potential for reduced well-
being, a possibility for which there is some research support in relation to internet
use in general, for example, in studies on internet addiction (van den Eijnden,
Meerkerk, Vermulst, Spiikerman, & Engels, 2008). Finally, the hostile comments
mostly seemed to relate to anger and annoyance at being researched, with the
implication that this objectifies the research participant or somehow seeks to
diminish the activity being researched. This type of hostility may apply to many
areas of psychological research, not just blogging, but there have been few attempts
to study it in the past.

Eighty per cent of the comments suggested a positive experience while blogging,
and 9% implied or stated negative experiences. A similar ratio of positive to
negative commenting was found in a Dutch social networking study with 78% of
interactions being positive and 7% being negative, with positive comments resulting
in increased self-esteem and feelings of self-worth (Valkenburg et al., 2006). This
may be explained at least in part by Trevino’s (2005) suggestion that positive
interactions are likely to be more frequent when blogging, because reading blogs is
voluntary and blogs must be intentionally sought out by the reader. Thus as reading
and responding to blog entries is effortful, there must be some motivation or reward
for doing so.

6.5.2 Psychosocial effects of blogging

User comments were coded ab initio into themes about the psychosocial effects of
blogging (as described in Section 6.4.3). The sub-themes were grouped into seven
overarching psychosocial categories. The main themes that emerged in relation to
the psychosocial benefits of blogging were Blogging as a Social Tool, Blogging as
an Emotional Tool, Blogging as a Communication Tool, Blogging Resulting in
Personal Development, Blogging and Real Life, and Blogging as a Professional
Tool. The seventh theme, Negative Consequences of Blogging, encompassed
negative aspects from each of the previous six themes.
A decision was made to examine the negative comments pertaining to blogging separately from the core six themes for two reasons. First, treating negative aspects separately made it easier to contrast the positive and negative aspects of blogging. In separating negative feedback it was noted that nearly 90% of the comments posted by bloggers reflected positive aspects and potential benefits, in line with the overall feedback on the validity of the Baker and Moore studies. Second, little research to date has examined the negative aspects of blogging. The present study presented an opportunity to examine the less beneficial aspects of utilizing this medium, thus grouping these items separately made it easier to comment on the negative aspects specifically rather than dispersing discussion over six positively toned themes. Also, because the negative aspects of blogging represented a relatively small proportion of the overall comments, a single section on negative effects (rather than six matching sub-sections) seemed the most appropriate course of action, particularly as negative aspects heavily overlapped between the themes.

A breakdown of the comments into sub-themes by the number of comments per theme, and relative percentage of the overall comments, can be seen below in Table 6.2.

### Table 6.2  
The Number of Comments and Relative Percentage per Theme

<table>
<thead>
<tr>
<th>Themes</th>
<th>Comments</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive Effects</strong></td>
<td>578</td>
<td>89.34</td>
</tr>
<tr>
<td>Blogging as a Social Tool</td>
<td>236</td>
<td>36.48</td>
</tr>
<tr>
<td>Blogging as an Emotional Tool</td>
<td>111</td>
<td>17.16</td>
</tr>
<tr>
<td>Blogging as a Communication Tool</td>
<td>101</td>
<td>15.61</td>
</tr>
<tr>
<td>Blogging Resulting in Personal Development</td>
<td>78</td>
<td>12.06</td>
</tr>
<tr>
<td>Blogging and Real Life</td>
<td>42</td>
<td>6.49</td>
</tr>
<tr>
<td>Blogging as a Professional Tool</td>
<td>10</td>
<td>1.55</td>
</tr>
<tr>
<td><strong>Negative Effects</strong></td>
<td>69</td>
<td>10.66</td>
</tr>
<tr>
<td>Negative Consequences of Blogging</td>
<td>69</td>
<td>10.66</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>647</td>
<td>100.00</td>
</tr>
</tbody>
</table>

While there were 487 comments posted, some comments related to 2 separate themes and were thus double-coded resulting in a total of 647 comments analyzed.
The 2 primary themes, consistent with the Baker and Moore (2008b) study, surrounded blogging as a social tool and as an emotional tool, and these themes made up a combined 53% of all comments. Each theme is examined individually in the following sections.

6.5.2.1  **Blogging as a Social Tool**

More references were coded under *Blogging as a Social Tool* than any other theme. These comments expressed both social benefits such as a sense of connection, of community, and support, and the role of blogging in overcoming personal social limitations such as difficulties socializing from a psychological standpoint (e.g., social anxiety) and from a physical standpoint (e.g., illness, new parents, geographical isolation). The majority of comments centered on blogging making it easier to form online relationships with like-minded people, both locally and abroad, leading to close knit communities offering both enjoyment and support. Seven subthemes were isolated within *Blogging as a Social Tool*. These were:

**Community, Friendship, Belonging** comments where the user expressed a sense of association or friendly relation with other bloggers. These comments accounted for 29% of references within this theme.

“...I feel like I belong to a community and I am not just talking to myself with my blog, as others can look at it and can discuss things, if not in the comments, then usually in person.”

“Blogging has made me my first new friends in a long time and got me the first interesting job I've had for a long time, too.”

Related were comments reflecting **Connection to Others**, defined as comments where the user expressed feeling linked to other bloggers (21% references).

“As my volume of blogging has increased, I have personally felt more connected than ever before. At the very least, my network, which was once quite localized, has expanded to international proportions.”
Social Support comments (14% references) involved the user expressing a sense of emotional comfort rising from the communications of other bloggers.

“…. blogging can give you some really powerful support that can touch your heart and mean something very important to you. It cannot be replicated.”

“Well firstly when I started this blog initially it was my way of documenting my weight loss journey but now it has evolved way beyond that now, for instance when I first started trying to lose weight I used to document my weekly weigh-ins. People would come along and leave a comment, and tell you how well you were doing which is like having support in the real world, in order to help you towards your goal. Which gives you moral support very much like in the real world.”

Social Integration & Specialization comments (11% references) were those in which the user described using their blog to discuss specific or narrow interests with other bloggers, or using blogging to seek out like-minded individuals.

“Blogging increases your capacity to be in contact with the world and if you are a specialist blogger it will increase your contact with like minded people…”

“And most people have at least one uncommon interest, point of view, or activity. You know, studying bugs, or a rare religious point of view, etc. And it can feel like you’re the only one in the world who does/thinks that until you get online, and realize there's others out there.”

World Community comments (9% references) extended this notion further, with comments in which the user discussed the global nature of blogging, or described connecting with other bloggers from distant communities. Connecting to others across social and geographic boundaries was perceived as valuable because it brought certain outcomes, reflected in later sub-themes reflecting reduced isolation, loneliness, and emotional distress.
“In real life your acquaintances are often made through circumstance rather than design and are often limited geographically. The web (and social networking more specifically) allows people to form friendships based on common interests and beliefs and allow regular communication irrespective of location.”

“Where else could a Malaysian student and a Pennsylvania horse race lover come together and talk about everything from rats to love?”

The theme of Reduced Isolation & Loneliness (9% references) involved comments in which the user described being separate from others physically, emotionally, or socially. The potential of blogging to at least in part ameliorate these feelings was suggested as part of its value.

“Over the last year I have been living in a place that is a far cry from the fast paced, multi-cultural city life I am used to and it has lead to a certainly degree of social isolation. It is perhaps writing this blog on a unpredictable wireless connection that really makes me feel less isolated.”

“I started blogging when newly a parent. I wasn’t getting out much at the time. Made me feel like I was doing something other than change nappies, and trying to put a wailing child to sleep.”

Difficulties Socializing (7% references) could also be potentially overcome through blogging. Comments in this sub-theme expressed personal difficulties creating social relationships with others.

“I'm hugely socially inept, I really am, but this place makes it so much easier.”

“I'm shy and not real great at conversions, so expressing myself in my journal and knowing some people will read it and maybe understand or have some advice; without it being too confrontational is pretty easy going for me.”
Discussion of Blogging as a Social Tool

The Baker and Moore (2008a, 2008b) studies found that blogging increased a sense of reliable alliance (trust in others), social integration and friendship satisfaction. The qualitative data in this current study suggests that blogging enables this through establishing closer connections to others (or at least the perception of such) through the setting up of online communities in which social support can be given and received. Additionally, ideas can be exchanged and interests discussed with people who care enough to respond. Within such a potentially huge virtual community, there are likely to be at least some others with similar interest and concerns, which may not be the case in FTF communities, especially among those who are geographically or otherwise isolated. Thus friendship satisfaction is likely to increase because blogging enables the formation of friendships not just based on proximity or family, but based on mutual interests and styles of interaction.

Baker and Moore also showed that among internet users intending bloggers had higher levels of distress and social dissatisfaction than those who did not intend to blog. This finding is validated by the current data in that several bloggers comment on isolation and loneliness being the trigger to starting a blog. As well, some bloggers mention their social anxiety and other socializing difficulties which can be more readily overcome in a blogging environment, as, at least initially, there is no need to worry about appearance, non-verbal expression, or ability to converse freely (McKenna & Bargh, 2000). The internet enables a kind of conversation in which the participants have time to compose their thoughts and ideas, and communicate in a time frame that suits their moods. Bloggers can, if they wish, mask aspects of themselves that they believe are unattractive. The expectations for social interaction are less immediate and for some, less threatening than offered by FTF interaction, allowing an individual to express their true self and to form emotionally deeper relationships (McKenna et al., 2002). Thus blogging may be particularly beneficial or therapeutic for those who have experienced social distress of various kinds.

While the majority of comments posted by bloggers reflected these positive aspects of blogging, some users perceived the ease of communication, the relative comfort, and the pleasure derived from online socialization as threatening. Section 6.5.2.7 (p. 134) examines in more detail some of the potential social difficulties resulting from such an easy method of interacting with others.
6.5.2.2  Blogging as an Emotional Tool

Blogging as an Emotional Tool had the second highest number of references of all the themes. Overall these comments expressed the positive personal/emotional benefits that some users found through blogging. These benefits mainly suggested that blogging can provide a sense of relief and healing, freedom to express oneself openly, and through these mechanisms, personal pleasure of an engaging activity. Accordingly, the three sub-themes within Blogging as an Emotional Tool were ‘Relief, Healing, Mental Well-being’, ‘Venting, Catharsis, Outlet’, and ‘Enjoyment & Pleasure’. Responses were classified in sub-themes according to the guidelines below.

Relief, Healing, Mental Well-being comments (43% references within this theme) were comments in which the user expressed that blogging had alleviated distress or promoted well-being.

“Whenever I feel down like the time I got rejected for an interview, writing a post on my blog definitely made me feel better.”

“I can dare say my blog is what has kept me sane all this time, and a big tool for fighting my depression.”

“I feel like if I don’t spend time to write down my ideas or what I am going through, I will keep them inside and never really deal with them.”

Venting, Catharsis, Outlet comments (40% references) were those in which the user described the use of blogging as a tool to release thoughts or feelings, including thoughts that they might normally keep in.

“My blogging allows me a cathartic outlet for my stress and anxiety to which medication alone can’t compare.”
“Yea I like totally like to rant all my personal stuff on the internet... it gives me a feeling of relief sort of like telling a philologist (sic) all my woes only I don’t have to pay them.”

Enjoyment & Pleasure comments (17% references) were evident when the user expressed a sense of personal satisfaction or pleasure as a consequence of blogging.

“Interacting on broad topics in the same visit is like being down the pub with lots of people you really enjoy talking with, a really good night out, without the hangover, chill and expense usually associated with it.”

Discussion of Blogging as an Emotional Tool

There is substantial research available on the use of emotion based writing for relief (Smyth, 1998). Indeed the traditional act of journaling has been linked to positive gains (Bonck & Gray, 2005) and an entire field of therapy called Narrative Therapy has emerged where an individual focuses on telling their story. Thus there is considerable research suggesting a high level of therapeutic efficacy for emotive writing. There has also been recent literature that suggests affective exchange is also a motivation for reading blog entries (Huang et al., 2008). Indeed, blog readers who focus on affective exchange seem to interact most fully with blog authors, finding their entries credible, talking about their entries with others, and interacting with the bloggers themselves. This is in stark contrast to individuals who use blogs for information or entertainment, who tend to have low levels of interaction with the authors but find the writings credible. Thus while informational blogs and journalistic blogs have status and believability for readers, personal affective blogs appear to lead to a much more dynamic and engaged interaction between authors and readers. There appears to be a symbiotic relationship between blog authors and readers, where affective exchange involves significant importance and meaning for all parties involved.

While the majority of comments on emotional well-being reflected the potential for blogs to increase positive affect, Section 6.5.2.7 (p. 134) highlights some of the potential negative emotional consequences of blogging. Misusage of the same commenting mechanisms that result in feelings of support and well-being can
likewise result in feelings of isolation and ill-being, and where relationships developed on the internet fail, just as in real life, negative emotions can remain.

6.5.2.3 *Blogging as a Communication Tool*

*Blogging as a Communication Tool* had the third highest number of references coded of the themes. Within this theme, the majority of the comments described the importance of commenting for blogging, the need for positive feedback and avoidance of negative feedback, the ability to freely express oneself to others using blogging, and peripherally the development and further implementation of communication skills. There were also a substantial number of comments regarding the ease of communicating through blogging that is not always available in other off-line situations such as FTF communication. Consequently, the three sub-themes within *Blogging as a Communication Tool* were ‘Commenting, Feedback’, ‘Self Expression, Communication’, and ‘Easier than Face-to-Face (FTF)’. Responses were classified in each sub-theme as below. Please note, negative commenting and aggressive feedback are considered separately in Section 6.5.2.7 (p. 134).

**Commenting, Feedback** comments were defined as those in which the user discussed feedback or the use of commenting as a form of communication (45% references within this theme).

“I can voice my opinions, experiences and results, receive feedback, receive alternative points of view to balance my thoughts against.”

**Self Expression, Communication** comments (35% references) were those in which the user described blogging as a form of communication, including a means of broadcasting their thoughts into cyberspace.

“I believe we have less isolation when we are communicating and we are reminded how alike we all are and we see our differences. Whether we reach out with a positive or critical spirit, we are communicating, asking to be heard and expressing ourselves.”
Easier than Face-to-Face (FTF) comments (20% references) reflected user discussion of differences between blogging and FTF communication, or other forms of non-mediated communication.

“And when people comment on that, it feels good. It doesn’t happen in real life because we don’t open up as much.”

“Perhaps blogging is less intimidating that face to face contact, and there is the opportunity to put more thought into what is written, rather than having to have an instant, perhaps reflex reply when ‘live’.”

Discussion of Blogging as a Communication Tool

This theme illustrates Schmidt’s (2007) idea of communities of blogging practice in which bloggers may feel they are readily able to communicate with one another (sometimes even more readily than in FTF situations) because the implicit rules of the system give permission for people to voice opinions and to give and receive feedback. The expectation is also implicit that interests and concerns, even unusual ones, can be shared – because the blogosphere is so wide, there is a likelihood that others will respond with similar interest and concerns – a situation far less likely than in FTF social gatherings. The focusing of blog entries on specific topics, and the shaping of these through feedback, can allow for an improvement in communication skills, through helping individuals to develop their arguments and their clarity of presentation. Miura and Yamashita (2007) predicted that bloggers would be more likely to continue to blog if their information handling skills were extended and improved through their writing activities, and this improvement was indeed noted by some of the comments in this study.

Additionally, blogs may reduce the social constraints that hinder people from discussing distressing events in their life, by providing an environment where it is appropriate to share inner thoughts and feelings (Lepore et al., 1996), thus serving as an important outlet for the expression of emotions and frustrations (Hara & Kling, 2000). FTF communication differs from online communication in several ways. As computer-mediated communication is visually and auditorily anonymous users are often more disinhibited in comparison to real life (McKenna & Bargh, 2000). While
bloggers may be partially identifiable by name or photo, considerable control over the timing and content of postings and comments can be exerted by bloggers, enabling bloggers to feel more empowered and in control. As there are elements of authorship, bloggers can influence how they present themselves to others, an option that is less readily available in FTF contact. Many of the comments on blogging being easier that FTF communication suggest that blogs may at times transcend the therapeutic value of FTF communication, in allowing authors to communicate subject matter they might otherwise be unable to express in ‘immediate’ social interaction such as FTF situations, telephone calls, and instant messages (Gumbrecht, 2004).

6.5.2.4 Blogging Resulting in Personal Development

Blogging Resulting in Personal Development had the fourth highest number of references coded of all the themes. Within this theme, the majority of the comments described how blogging had led to individual growth in the users through skill development and insight, followed by confidence and the further utilization of these skills. Skills blogging helped to develop included social skills, writing and communication skills, debate and conversational skills, the organization of thoughts and self insights, and finally self-confidence. Five sub-themes were identified within Blogging Resulting in Personal Development. These were:

Growth, Confidence, Social Skills comments (35% references) were defined as those where the user expressed improvements in their ability to interact and communicate with others, or an increased belief in their abilities to interact with others.

“I’ve always loved writing because, having grown up as an incredibly shy person, it gave me more of a voice than I expressed verbally. But because blogging is interactive, it’s made me more aware of the fact that I’m directly communicating with people through my writing. Which has, in turn, given me a lot more confidence and ability at bringing more of
my written voice into my verbal conversation. In other words, it’s helped me to express myself better, not just as a writer, but as a person.”

“I blog for myself, some tidbits on personal motivation and self growth.”

“In fact, blogging helps you put together cogent arguments, express yourself more completely, and generally be more socially aware.”

Education, Learning & Enrichment comments (27% references) were those in which the user suggested blogging had led to improvements in their knowledge base.

“I am constantly reading, commenting, writing, learning. Why is it that I hated learning in school and now go home at the end of a long day and look forward to reading and learning from my social network?”

“I have access to other peoples experiences and expertise.”

Communication & Debate Skills comments (20% references) occurred when users expressed improvements in their ability to exchange thoughts, opinions and information, including with consideration to differing points of view.

“I know that it has pushed me to transfer what’s on my mind into words and points of view that I can support in real-life.”

“... blogging helps you put together cogent arguments, express yourself more completely, and generally be more socially aware.”

“... it's helped me to express myself better, not just as a writer, but as a person.”

Organize Thoughts comments (12% references) were defined as comments where the user identified blogging to be helpful in systematically examining and giving structure to their thoughts.
“For me, I know that blogging has helped me to organize my thoughts and to understand more about what everyone in my life is going through. It helps me to look inside myself and really focus on what I am thinking and to make it in an archived format.”

Insight & Introspection comments (6% references) were defined as comments where the user expressed gaining deeper self-understanding, or the intentional act of exploring the self.

“Whether we reach out to connect with others in person or online, in a business or social setting, we are actually connecting first with ourselves and then with others. Sometimes we need to see how we look to others, like these comments on this article and on each other's thoughts, to see ourselves.”

“You also get to know yourself a bit better, even providing platform to express your more carefree aspect, just in case you can’t in real life.”

Discussion of Blogging Resulting in Personal Development

Personal development through blogging is in part encompassed by the previous subthemes of improvements in social life, therapeutic venting of emotions and development of communication networks and skills. These ideas are given more specificity in the sub-themes of personal development. Bloggers describe how they increase in confidence as communicators and social beings, how they learn new information and skills, organize and clarify their thoughts and develop self insights. This reflects findings by Williams and Merten (2008) and Miura and Yamashita (2007) who comment on the role of blogging in promoting self-awareness and identity, as well as the ideas of Doctorow (2002). The themes of education, debating, and organizing thoughts all align well with some of the cognitive needs described in the literature (see Chapter 3), although the mechanism for cognitive growth appears to be largely through active engagement and communication with others (rather than just passive learning). Learning through discussion with others,
reflecting on personal experiences and teaching others fits well with Glasser's learning paradigm that we learn '10% of what we read, 20% of what we hear, 30% of what we see, 50% of what we see and hear, 70% of what we discuss with others, 80% of what we experience personally, and 95% of what we teach someone else' (attributed to William Glasser, National Training Laboratories, Bethel, Maine).

6.5.2.5 Blogging and Real Life

The *Blogging and Real Life* theme described the benefits of blogging in improving real life experiences and relationships, mainly through improving social skills and meeting new people. The three sub-themes were 'Online - Offline Balance', ‘Improvements In Real Life’, and ‘Create FTF Relationships’. Responses were classified in each sub-theme according to the guidelines below. While many of the comments in this category overlap with other categories (and were thus double-coded), a decision was made to create a stand-alone theme where comments directly related the effects of or similarities of blogging to real life.

**Online - Offline Balance** comments (38% of references within this theme) were statements where users discussed differences in, or a need to balance, online and offline life.

“We're well into the 21st century now, so I think we can feel free to drop this superstitious distinction between the Internet & "real life".”

“I check on you and blog friends daily, more than I talk to real-life friends usually.”

“Perhaps if you can balance between the online and offline worlds, then it may open up a bit of a new social gap, but even then, often people only project a certain side to themselves, so I don’t know how solid that communication really is. That said, I’ve managed to make a few connections through blogging, so it can be done I guess.”
Improvements In Real Life comments (33% references within this theme) were defined as comments where users expressed improvements in their real life due to blogging.

"It made me organize my own thoughts and realize that they were as valuable as any other opinion, which made it easier for me to defend them in real life. Blogger friends show a face they would probably not show as easily in real life, and I like most things I’ve learned from people and from myself."

“It also makes socializing a bit easier for me as well."

“I know much more about my friends who blog (even the ones who don’t say much) than the ones who do not.”

Create FTF Relationships comments (29% references) were defined as comments where blogging led to new FTF relationships offline. These comments overlap with the social theme in their nature, but were also categorized in the present subtheme to highlight the potential for an online medium to create offline social capital and social supports.

“Blogging has made me my first new friends in a long time and got me the first interesting job I've had for a long time, too.”

“As a newcomer to UK, I needed to make a large effort to meet people. Rather than join a whole lot of clubs I am not interested in, I've used 2.0 to find small groups within 100 or so miles of where I live who do things that interest me a lot. It has worked really well. I let it lapse from time to time and then get back to it.”

Discussion of Blogging and Real Life

One of the more interesting debates among bloggers was over the relative merits of online and offline communication. Some users expressed a sentiment that online
relationships were as valuable and more approachable than offline relationships, and suggested any need to differentiate between the two was unnecessary. However, another group of bloggers took the more traditional approach seen by Nie and Erbring (2000) where quality FTF relationships are given more value (see Section 4.2.1, p. 64) and there is a fear that online relationships may supplant these resulting in ill-being.

While the commentary generally suggested that while there was potential for misusage (see Section 6.5.2.7, p. 134), this theme appeared to support the supposition that online communication can have benefits that extend beyond the internet. McKenna et al. (2002) argued that the internet can allow people to express their true selves more freely than in FTF life, due to aspects of partial anonymity and an ability to express one’s inner self without FTF limitations (see Section 2.5, p. 20). For individuals who have difficulties in FTF life, the internet may provide a testing ground or practice ground which can develop interpersonal skills that can be transferred to real life interactions. Additionally it can be used to forge real life relationships with people whom one might not normally come across in daily life. Other authors have argued that the internet provides a “rich get richer” environment where individuals with good social skills and extraverted personalities benefit more from online interactions as an extension of their FTF life, and further increase their FTF successes (Kraut et al., 2002)(see Section 4.2.4.2, p. 72). However, most comments in this category suggested that individuals with physical or psychosocial barriers to interacting with others also benefit from maintaining a blog.

6.5.2.6 Blogging as a Professional Tool

Blogging as a Professional Tool referred to blogging as a tool for self or business promotion, often times with ties to profitable business pursuits. This theme received a low number of comments overall. The two sub-themes were ‘Self Promotion’ (60% references within this theme) and ‘For Profit’ (40% references). Responses were classified in each sub-theme according to the guidelines below.

Self Promotion comments were defined as comments where the user suggested they used blogging to promote their business, cause, organization, or self-identity.
“Whether online or offline, networking is all about connection and we bring our values with us along with our business cards and profiles.”

For Profit comments were defined as comments where the user suggested their blogging was tied to financial benefits.

“How...I make a few hundred a month writing a few blog posts which I submit to Triond, and they’re for share revenue. If anything blogging makes me feel less guilty for eating out every weekend.”

Discussion of Blogging as a Professional Tool

This theme comprised the smallest number of comments. However, the use of a blog for promotion and profit appears to be quite common on the internet. Entire sites have been dedicated to giving advice on how to profit from blogging (e.g., http://www.problogger.net/make-money-blogging/), as well as specific blogs on this subject. As Huang et al. (2008) suggested, many readers use blogs to keep up with current trends and to ‘hop on the bandwagon’. Blogging can easily be utilized to spread advertisements by ‘word of mouth’ through track-backs and links, and thus profit both individuals and corporations.

6.5.2.7 Negative Consequences of Blogging

The Negative Consequences of Blogging theme was used to group comments reflecting undesirable aspects and costs of blogging. This category illustrated a general uncertainty in the community over whether online interactions were equivalent to offline interactions, and whether blogging was healthy from a physiological, emotional, social, and professional perspective. The three sub-themes were ‘Social Difficulties’, 'Emotional Difficulties', and 'Misusage and Health Difficulties'. Responses were classified in each sub-theme according to the guidelines below.
Social Difficulty comments (36% references) were those in which the user expressed concerns about the use of computer-mediated communication reducing FTF contact or creating strain in interpersonal relationships.

“I see blogging the same way I see TV. It’s not the behavior that it incites, but the behavior that it can prevent (human beings talking face to face with each other, human beings spending less time in front of the computer and more time with each other…) I am spending crazy amounts of time online when I could be talking to a real person. I’d rather be doing the latter.”

“A friend of mine recently started blogging. She is still learning the ropes and really wants to give it her all. This means that she’s spending a lot of free time blogging and reading blogs. Sometimes this bugs her spouse.”

“But for the younger generation or among strangers, it might not be a good way of fostering social skills which are best acquired through human interactions (e.g. observing body languages, learning how to maintain a conversation...etc)”

A number of authors also highlighted the potential for blogs to result in Emotional Difficulties (32% references) through difficult interactions, the absence of interactions with others, and the loss of contact with others. Examples of comments on abusive feedback, increased emotional and social loneliness, and grief and loss can be seen below.

“But it did happen with two people whose crafting blogs I was a regular on. No warning just a sudden ...I need to get on with real life and living ...which is understandable but deciding not to reply to emails or comments on the final blog entry seemed a little cruel to me. These were small blogging communities so it was hard to see why it would be so especially since we had a relationship going by email as well.”
“Since the majority of comments I get are negative and since I recently was told that I supported genocide, was "content to hold the coats of those who wish to be stoned" and emulated Ann Coulter [a well known right wing political commentator] (that one hurt the most :-), I'm not exactly feeling the love, people.”

“I'd dabbled a bit with LiveJournal but stopped, it all felt far too alone... unless you were really lucky your journal sat in the midst of thousands more, as findable as a single blade of grass in the field, and it was merely a cathartic exercise, rather than a social one, so I gave it up.”

Misusage and Health Difficulty comments (32% references within this theme) were comments in which the user highlighted real world difficulties relating to distraction and time-wasting, potential liability, and health problems.

“Really? Personally, I'm feeling anxious, depressed, and stressed because of all the things I'm not getting done because I'm blogging!”

“Do not discuss work- or school-related things, or at least do so with caution. People have been fired for things mentioned on blogs... and students have had issues with teachers who have stumbled across their writing.”

“I don't get enough exercise, I've developed tendonitis in my arm, and I'm probably wreaking my eyesight starting at the screen all the time. Not to mention that it seems to have given me an impatience for reading anything longer than three pages :-) I find it almost impossible to sit and read theology now because I start getting bored after the third of fourth paragraph. I have to discipline myself to sit there and finish a section before I can put the book down. Usually after I get through a section I can continue but it's really difficult to get started and to keep my attention focused.”
Discussion of Negative Consequences of Blogging

This theme highlighted a number of difficulties which can arise from blogging, and in particular the same mechanisms which may aid in increasing psychosocial well-being. Section 6.5.2.1 (p. 120) on the social aspects of blogging described a number of ways blogs can be helpful in connecting people across time and space, and in improving social well-being. In the present theme, concerns over the ease of online conversation and the ability to 'hide' online and avoid human contact (particularly for individuals where social anxiety traits exist) were reminiscent of earlier internet research such as that of Nie and Erbring (2000) where concerns were raised that the internet would displace higher quality FTF relationships. The relative quality and strength of online vs. offline relations still appears to be a topic of continuing debate.

Section 6.5.2.2 (p. 124) highlighted the utility of the blog in reducing emotional distress and increasing pleasure and positive affect, in the present theme the potential for blogs to result in feelings of alienation, grief, and suffering were highlighted. In particular, in contrast to Section 6.5.2.3 (p. 126) where blog commentary was mainly positive or academic in nature, in the present section the ability for commenting to be misused to express hostile sentiments was highlighted. Flaming (see Section 2.5.3, p. 25) appears to be less frequent than supportive comments, but the power to do harm, particularly with potentially vulnerable populations, is notable. Finally, this section highlighted a number of potential difficulties raised elsewhere in the general internet literature, such as those arising from inappropriate usage (Suler, 2004) or over-usage (Morahan-Martin & Schumacher, 2000; Young, 1997).

6.6 General Discussion & Overarching Topics

In total 26 subthemes emerged in Study 1 and were grouped into 7 overarching themes. The themes and subthemes are presented in totality in Table 6.3.
Table 6.3
The Percentage of Comments per Theme and Subtheme

<table>
<thead>
<tr>
<th>Themes</th>
<th>Comments in Theme %</th>
<th>Total Comments n</th>
<th>Total Comments %</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positive Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blogging as a Social Tool</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community, Friendship, Belonging</td>
<td>29</td>
<td>236</td>
<td>36</td>
</tr>
<tr>
<td>Connection to Others</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Support</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Integration &amp; Specialization</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>World Community</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation &amp; Loneliness</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulties Socializing</td>
<td>7</td>
<td></td>
<td></td>
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<tr>
<td>Blogging as an Emotional Tool</td>
<td>111</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Relief, Healing, Mental Well-being</td>
<td>43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venting, Catharsis, Outlet</td>
<td>40</td>
<td></td>
<td></td>
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<tr>
<td>Enjoyment &amp; Pleasure</td>
<td>17</td>
<td></td>
<td></td>
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<tr>
<td>Blogging as a Communication Tool</td>
<td>101</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Commenting, Feedback</td>
<td>45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self Expression, Communication</td>
<td>35</td>
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<td></td>
</tr>
<tr>
<td>Easier than Face-to-Face (FTF)</td>
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<tr>
<td>Blogging Resulting in Personal Development</td>
<td>78</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Growth, Confidence, Social Skills</td>
<td>35</td>
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<tr>
<td>Education, Learning &amp; Enrichment</td>
<td>27</td>
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<tr>
<td>Communication &amp; Debate Skills</td>
<td>20</td>
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<tr>
<td>Organize Thoughts</td>
<td>12</td>
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<tr>
<td>Insight &amp; Introspection</td>
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<tr>
<td>Blogging and Real Life</td>
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<tr>
<td>Online - Offline Balance</td>
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<tr>
<td>Improvements In Real Life</td>
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<tr>
<td>Create FTF Relationships</td>
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<td>Self Promotion</td>
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<tr>
<td>For Profit</td>
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<tr>
<td>Negative Effects</td>
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<td>Negative Consequences of Blogging</td>
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<td>Social Difficulty</td>
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<td>Emotional Difficulties</td>
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<tr>
<td>Misusage and Health Difficulty</td>
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<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>647</td>
<td>100</td>
<td></td>
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</tbody>
</table>
While coding the comments on blogging it was noted that many comments made references to multiple themes and sub-themes. For example, in the comment:

“I've always loved writing because, having grown up as an incredibly shy person, it gave me more of a voice than I expressed verbally. But because blogging is interactive, it's made me more aware of the fact that I'm directly communicating with people through my writing. Which has, in turn, given me a lot more confidence and ability at bringing more of my written voice into my verbal conversation. In other words, it's helped me to express myself better, not just as a writer, but as a person.”

a number of themes are expressed such as the relationship between social difficulties and choosing to use a blog, the idea that blogging can promote growth and confidence, and idea that personal improvements online can translate to real life growth and benefits. Comments like this were coded multiple times, and this process of double coding presented an opportunity to reflect on some instances where themes were related to each other.

In inductive qualitative analysis, the examination of themes and their relationship to one another is referred to as ‘Theoretical Coding’ (Charmaz, 2006). Theoretical coding can be used to merge focused themes which have been examined into conceptual theories (Glaser, 1978). By examining double coded comments the author was able to begin looking at some of these themes through the lens of theoretical coding, and to articulate the relationships between some themes. Some of these resulting overarching topics are described in the remaining sections as both a discussion of, and a foundation for, a basic framework which describes some of the mechanisms and systemic effects of blogging from the point of view of bloggers themselves. Words in bold make reference to themes and subthemes addressed in the earlier sections.

6.6.1 Global Audience

One overarching theme that emerged in relation to blogging was the theme of a world community. This theme was linked both to isolation and loneliness, and to
social integration and specialization. Some users commented that having shifted physical location, and being socially isolated, they were forced to both stay connected with old networks and also re-establish new networks. Blogging was thus utilized both to maintain and extend FTF friendship networks. Regardless of social isolation, however, blogging appears to offer nearly any user the ability to make social connections with like-minded individuals. This process is facilitated by a world audience, in that it can be easier for bloggers to connect with like-minded individuals in a world community of millions than in a real life community of thousands. Blogging connections to others can provide the users with feelings of recognition, being understood, and enjoyment and pleasure. One user commented:

“In real life your acquaintances are often made through circumstance rather than design and are often limited geographically. The web (and social networking more specifically) allow people to form friendships based on common interests and beliefs and allow regular communication irrespective of location. Doesn't everyone feel better after having a conversation with that one friend who 'really gets you', so what if that friend is on the other side of the country (or even the world) and the means of communication is electronic.”

6.6.2 Similarities and Differences to Journaling

Baker and Moore (2008b) proposed blogs may be beneficial for emotional well-being in ways similar to personal journals. There were numerous comments stating that blogging can be beneficial acting as a form of venting and catharsis in ways similar to traditional pen and paper journals. The process of venting can provide the author with some relief, healing and well-being and can unburden them of their problems in allowing them to externalize them to some extent. One user commented:

“I always referred to it as ‘screaming at nobody through the power of the Internet’. I was signed off from work just over two years ago with chronic anxiety and severe depression, the NHS waiting list for treatment where I live is just over 2 years, I needed something. Over the first twelve months that I was off my employer continued to hassle me and my father was diagnosed with and killed by brain cancer. Blogging gave me a way of screaming out all the pain...
and anguish that was caught up in me; nailing it out on the internet and out of my head. If anything discovering that people were reading my blogs actually made them harder to write, particularly as I have started to level out again but during the darkest times I found blogging an affective (sic) tool to unburden oneself of vicious and harmful thoughts. It may not suit everyone but it helped me to keep my head above water.”

Indeed some users state that they literally digitize and submit a personal journal on a weekly basis:

“I keep a daily diary entry on my computer and add it to this blog once a week or so. Daily if I have the time to do that, but often I get other things crowding in and it gets set aside until I do have a moment.”

However some users pointed out that while important, venting alone was insufficient to make blogging a successful medium. Indeed the very nature of blogging is different to journaling in that there is a readership that has the ability to communicate with the author. Thus the social aspects of blogging appear to be a crucial component in receiving benefit from blogging in social support, social integration and specialization, community, friendship and belonging, and overall enjoyment and pleasure. These social benefits mainly arise through feedback and commenting between bloggers. Thus the absence of feedback in blogging (e.g., traditional journal, without an audience of peers) not only can reduce the blog to a diary, but also may have additional costs in terms of the author's social and emotional well-being.

“I'd dabbled a bit with LiveJournal but stopped, it all felt far too alone... unless you were really lucky your journal sat in the midst of thousands more, as findable as a single blade of grass in the field, and it was merely a cathartic exercise, rather than a social one, so I gave up.”

In contrast, comments and positive feedback can invigorate an author and increase both publication of their own blog posts, and also comments on other users’ blogs.
This process can increase connection to others, social support, and a sense of community, friendship, and belonging through mutual positive regard.

“I wasn't particularly interested in reading anyone else's blog, nor bothered about people reading mine. Until people started commenting. Which a) amazed me that anyone would want to read the nonsense I was writing, and b) made me curious as to what they were writing about. Now, of course, I'm hooked.”

Thus it appears that it is normally a combination of factors in journaling and social communication that can make blogging successful in providing relief, enjoyment, and connection to others.

“Last year I was close to breaking down, and it showed through my writing, the up and down extremes of my moods, instead of turning people away from my blog, they all came together and kept me together, although for the most part, my commenters are complete strangers, they have helped me grow strong again, I know in some strange way, they are there for me and I am there for them.”

6.6.3 Commenting

Blogging as a social activity was closely connected to blogging as a form of communication through commenting and feedback. Commenting seems an essential component of blogging, and there is interestingly an apparent focus on keeping things positive and supportive. While nearly all bloggers seem to experience some negative comments, the majority of bloggers in the current sample seemed to have mainly positive experiences which left them feeling a part of a supportive community.

“Blogging as a whole can give you a sense of community very much the same as in the real world when someone leaves a comment on your blog, it can mean such a lot especially if it is a positive one, you will get negative ones but that is just the very nature of blogging. Comments as a whole are a great way to get to know other bloggers.”
The focus on positive comments may be due in part to some social self-regulation between bloggers in regards to negative blogging. Because blogging is public, commenters seem to need to exercise as much consideration of other readers as the blog authors do.

“She has learned that sometimes even though people invite comments in response, they are not ready to hear much "honest" feedback if it is taken to be critical. So she now gives feedback in private email, but recently she had an experience of honest, private feedback not being taken very well.”

6.6.4 Social Integration

Because the internet enables people from around the world to connect and communicate, this appears to intensify the blogging process. This has the benefit of exposing the authors and commenters alike to a large body of people with potentially similar interests thus increasing the likelihood of finding a group of peers with similar interests (social integration) and making the blogging process more rewarding. There has been quantitative support for increases in bridging social capital and social integration among both social networkers (Ellison, Steinfield & Lampe, 2007) and bloggers (Baker & Moore, 2008a). Baker and Moore found social integration increased among new bloggers after using their blog for two months. This world-wide integrated connection can extend specifically to support with countless blogs dedicated to weight loss (with individuals tracking their goals with postings and photos, and receiving peer support), mental illness, physical illness, parental support, educational support, and numerous other areas. This overall breadth and depth, locally and internationally creates a true richness. The ability to connect to other similar individuals can provide an increased capacity for support and growth. Exposure to individuals from different cultures and backgrounds can offer a richness of interaction that promotes learning and self-improvement.

“...The fact that potential exchanges are global in scope maybe intensifies the feeling of interaction. I've certainly interacted with more people from a richer..."
variety of cultures than I've perhaps been able to prior to getting into the whole blogging experience (visiting other people's pages, leaving comments, joining into discussions on a whole host of ideas and issues that reflect the diversity of the globe).”

“People feel like they are important. The web is huge and if people can still find and manage to help you, it makes you feel like you matter in the vast world.”

This social integration, and indeed social support resulting from these online interactions, appears to be largely influenced by the fact that blogging is a mediated form of communication. Indeed it appears many of the obstacles that prevent certain subject matter from coming across in normal FTF conversations is considered appropriate in blogging. This is especially helpful for users who come to blogging in a disadvantaged position of being shy and socially reticent.

“I love how you can get to know people through their journals and them you. I'm shy and not real great at conversions, so expressing myself in my journal and knowing some people will read it and maybe understand or have some advice; without it being too confrontational is pretty easy going for me.”

Consequently many users benefit from having a safe place to express themselves in ways they normally would not in real life, and with an audience of peers who are very similar to the authors, making it easier for both coping and relief as well as personal growth. A sense of belonging and a connection can allow for the exchange of thoughts that might not occur in another environment.

“Yeah, I feel blogging helps me connect on a deeper level. I mean, we don’t talk about stuff that we usually blog about, do we? and yet these are the stuff that we feel are important to us but can't be shared with people in our lives for various reasons.”

This safe space (see Gumbrecht, 2004) to express oneself with similar peers provides an opportunity for growth through rehearsal. In enacting situations and
conversations that might not occur in FTF life, the authors and commenters can gain opportunities to express themselves and learn about themselves that would not otherwise exist.

“I know that blogging has helped me express myself in ways that were not always feasible in face-to-face situations. I know that it has pushed me to transfer what’s on my mind into words and points of view that I can support in real-life. I know that it has shaped and reflected some aspects of my character. I also know that it has provided a channel of communication between me and like-minded people, as well as others, which would not have been possible otherwise.”

6.6.5 Potential for Addiction vs. Potential for Growth

Because blogs can allow such a pleasurable and intense connection, there can be some expenses in terms of problematic usage such as the loss of FTF relationships and time. Depending on the extent a person engages in blogging, this appears to lead to potentially problematic usage (see Section 4.3.1).

“I’ve been blogging for a couple of years now and it makes me feel good - I feel, at time, compelled to do it and it feels good - even if it does consume a lot of time (it also adds a lot to me).”

“I fear I may be losing my ability to relate to humans 1:1, every now and then I must drag myself out from behind the computer and try to talk to people.”

On the other hand, some users appear to directly transfer their personal improvements due to blogging to their FTF interactions.

“Blogging is interactive, it's made me more aware of the fact that I'm directly communicating with people through my writing. Which has, in turn, given me a lot more confidence and ability at bringing more of my written voice into my
verbal conversation. In other words, it's helped me to express myself better, not just as a writer, but as a person.”

In improving FTF skills through online practice and building communication skills and confidence, some users show a subsequent decreasing need for their blog.

“Certainly, as I grow stronger in real life, my capacity for (and interest in) online relationships wanes. However, there are a number of people that I know only online that I feel closer to than people I see every week. I guess (like anything) that it depends on a bunch of stuff.”

6.6.6 Summary

An examination of the relationship between subthemes could be useful in providing the basis for theoretical models examining mechanisms for both growth and potentially problematic usage. These models may be helpful in providing a starting point for future research into the effects of blogging. While blogs appear to have a number of mechanisms for facilitating growth and well-being, over-usage of blogging may result in paradoxical decreases in well-being. Commenting in particular is an area of blogging which is under-examined. This is perhaps due to a majority of comments being respectful or positive. Still, the minority of comments which are aggressive or hostile appear to have the potential to lead bloggers to discontinue their blogs. Further quantitative examination of the nature and role of commenting in blogging is warranted.

6.7 Concluding comments

This study had two major purposes – to assess blogger reactions to the previous study on the psychosocial effects of blogging, and to provide further information on these effects, in particular the benefits of blogging. In the first case, the present innovative methodology showed that bloggers on the whole agreed that blogging had therapeutic and social benefits. In the second case, detailed blogger comments provided evidence for a rich and nuanced set of perceived benefits of the practice of
blogging, including benefits to learning, communication, self-knowledge, real-world activities and self promotion, as well as the social and emotional benefits indicated in our previous quantitative research.

The utilization of blogger comments as a form of research data, particularly comments on recently published research (as was the case for this study) has several methodological strengths. Some of these relate to the strengths of qualitative research in general, for example the potential to access material, ideas and concepts not currently available to the researcher through published literature, and the possibilities of tapping participants’ real, lived experiences from their own frameworks, rather than currently existing theories or models. However there were further methodological strengths in the current study above and beyond those of traditional qualitative research.

In the present study, the comments made on the original Baker and Moore research allowed the researchers to compare their statistical outcomes with the personal experiences of bloggers, a form of validation. This research enabled full circle feedback, where the researched group was able to influence the authors’ conclusions about the psychosocial effects of blogging by elaborating and expanding on the authors’ original findings. This also has the potential for shaping future research, in effect creating a dialogue with the researchers.

This full circle style of research, where an exchange occurs between the researcher and the subject of their research, could have applications for online research studies. The idea of incorporating feedback from participants in research is not new. In the 1970's, for example, Heron and Reason proposed that researchers could work with participants in a process of 'cooperative inquiry' whereby researchers and research subjects continually adjusted the research process and conclusions through reflection and collaboration (Heron, 1996). Advances in information communication technology could facilitate this feedback process in ways not possible in the past. The internet, for example, through its many communication platforms (e.g. blogs, wiki's, message boards, etc.) is well positioned to provide a collaborative environment where researchers can interact directly with participants. Similarly, where journals/diaries are currently utilized in some areas of human research such as sleep studies and cognitive behavioral therapy protocols to record information about the participant behavior, these devices could incorporate
the use of more advanced information communication technologies (e.g., weblogs, mobile phone applications, etc.) and be utilized both to monitor participants during the study and to elicit feedback from participants during and after the research. An open dialogue between the researchers and human participants could alter assumptions, conclusions and future directions of the researchers. Thus studies with open feedback may be an important form of research in the future.

An additional benefit of an open line of communication is that it ensures the researchers are transparent in their procedures and reporting, and creates a barrier to deceptive practices. Researchers become accountable both to the scientific community, and to the very participants who make their research possible. And where any harm may have occurred from the conduct of research, the feedback process may alert researchers to it for future studies. Alternatively, it may also alert researchers to strategies or techniques that were particularly effective for participants, to which researcher might not have otherwise been alerted. For example with weight loss or smoking cessation studies, strategies participants use that go beyond the research protocol might come to light.

The idea of a dialogue may be threatening to some researchers. With higher accountability, and with research conclusions extending beyond initial publication, this process of feedback involves more work and more risk than traditional research which is considered complete and adequate once accepted in the opinion of a limited number of peer reviewers. However, as technology now facilitates this type of dialogue, and where science is aimed at studying both the norms and the exceptions, the more detail with which one can critically review their research, the better.

As with all qualitative research, a number of limitations were present in this study. First, even where researchers attempt to allow the data to shape their conclusions, there is always the risk of personal bias (e.g., expectation bias) shaping their findings. In this sense, ideally subsequent qualitative analysis should be completed by an unrelated party to the original research, similar to the principles of a double-blind study. Secondly, qualitative studies also run the risk of Type I error whereby the researcher unintentionally overlooks data, or in the present study, misses key themes and subthemes. Having multiple individual coders establishing and utilizing coding frameworks helps minimize this source of error. A third limitation relates to the ability of a blogger to reliably describe their motivations for
and the effects of blogging. With a considerable percentage of the population not having obtained professional training in psychology, their perceptions of wellbeing and social change might be considered limited relative to the judgments a trained psychologist might make. However, this limitation is also a strength as quantitative clinical measures of psychosocial wellbeing are utilized elsewhere in this thesis and the perceptions of the bloggers in the current study are of use in providing context to and interpreting the statistical changes observed in subjects both previously in the Baker and Moore (2008a, 2008b) study and in the present thesis. Finally, the use of extant data in this case meant the author did not have access to relevant demographic data which may have been use in the analysis of the data.
7 Study 2 - Assessment of Blogger Motivation and Baseline Data on Blogger Well-being

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7.1 Overview

In Chapter 6 blogging motivations were evaluated from a qualitative perspective using bloggers' responses to the Baker and Moore study (Baker & Moore, 2008a, 2008b). In the present chapter blogging motivations are examined quantitatively and a blogging motivation measure is created and validated, using some of the data collected in Study 1. Blogger motivations are then compared to those of non-blogging social network users.
7.2 Creation of the Blogging Motivation Scale

7.2.1 Introduction

Early research on the motivations for blogging consisted mainly of qualitative studies and opinion pieces. While such material generated a number of potential blogging motivations, many of these have not been independently researched using quantitative methods. One of the most well-regarded qualitative studies was published by Nardi et al. (2004) who developed five thematic motivations for blogging in their qualitative study. These were, 'To document my life' which involves keeping a record of life events, 'Blogs as commentary' where the author expresses personal opinions, 'Blogs as catharsis' where a blogger vents thoughts and feelings, 'Blog as muse' where a blogger uses writing to make sense of things, and 'Blogging as a community forum' where individuals group together to share a collective experience. Similar themes also appeared in Study 1 of this thesis including Blogging as a Social Tool, Blogging as an Emotional Tool, and Blogging Resulting in Personal Development. Despite these themes appearing in published qualitative literature (e.g., Nardi et al.) and in the present thesis, aspects are underrepresented or unrepresented in the current quantitative research body, and thus it would seem important to include these motivations in any further investigations of the motivations of blogging.

As research on blog motivations has shifted from qualitative to quantitative, several brief instruments have been developed to examine blogging motivations. Four recent studies in particular present a number of diverse motivations for blogging. These are McCullagh’s (2008) research on blogging and privacy which generated a list of 11 ungrouped motivations for blogging, a Taiwanese study by Huang et al. (2008) who looked at four categories of motivations for reading blog entries, a Korean study by Jung and colleagues (2004) who developed six categories of motivations for blogging, and Hollengaugh’s (2011) blogging motivation scale based on the Nardi et al. study described previously. The method and types of motivations developed in each study are described briefly below to highlight both the range of motivations and the methodological issues inherent within the current body of research.
McCullagh's (2008) study on self-presentation and privacy took into consideration a list of 11 possible 'reasons for blogging'. These were documenting and sharing personal experiences with others, creative self-expression, influencing others' thinking, motivating others to action, sharing knowledge or skills with others, networking and meeting new people, entertaining people, discussing problems with others, staying in touch with friends and family, making money, and storing information and resources. Only 1 item was used to assess each of the 11 motivations. These 11 motivations appear to have been created mainly for descriptive statistics in McCullagh's study and there is no commentary as to the origin of the categories. While a major limitation of this study was the use of single items to measure each construct, a strength was the range and scope of the questions.

Huang et al. (2008) conducted a study on motivations for reading a blog. Study 1 in the present thesis suggested readership and commentary can be a large part of the blogging experience. As there may be reader motivations in common with blog authors, or complementary to the motivations of blog authors (e.g., bloggers like to entertain others, readers like to be entertained), a decision was made to include reader motivations in the present study. Huang et al. developed four main groups of motivations to describe readership motivations. 'Affective exchange' which involves aspects of emotional connection, social support, and friendship, 'Information search' which involves seeking out information and increasing knowledge, 'Entertainment' which involves reading blogs to pass time and for entertainment, and 'Bandwagon effect' which involves keeping up with current trends. One limitation of this study was that some themes appear to contain multiple separate constructs. For example 'Affective exchange' encompasses catharsis, care and support, connection, and keeping in touch with others. Likewise it is unclear whether passing time and enjoying oneself are analogous.

Jung et al. (2007) performed a principle component analysis on 13 potential motivations and arrived at 6 thematic motivations for blogging. They are 'For entertainment' which involves the idea of enjoyment, 'Self-expression' (telling others about oneself), 'Professional advancement' (seeking work and recognition), 'Passing time' (blogging to beat boredom), 'Communicating with family and friends' (blogging as a way to keep in contact with family and friends), and 'Trend' where
individuals blog because it is a fashionable current trend. While the introduction of the concept of following a trend was a strength, as with the others, this study was limited by a low number of items per factor, and unclear or overlapping constructs.

During the write-up of this thesis Hollengaugh (2011) published the most comprehensive blogging motivation scale to date. However, even in this case the scale was limited by a lack of theoretical basis for item selection and a low number of items uniquely loading on each of the seven factors (3-5). Also, her motivational items did not cover the breadth of motivations classified using Katz et al.’s (1973) model.

As in the above examples, most motivational instruments to date are generally limited by a lack of theoretical basis, a low number of items measuring each type of motivation, divergence in the constructs measured by each author, and the overlapping nature of many of the constructs. For example 'self-expression' may represent different motivations and purposes depending on the context, such as for exhibitionism, narcissistically seeking praise and recognition, creatively showing off artistic works, or identity testing. Some constructs are absent from the majority of studies, such as professional advancement (McCullagh, 2008) and pleasure-seeking (Jung et al., 2007). Thus, while a number of potential motivations for creating and reading blogs have been presented in the literature, the majority of motivation studies to date have been mainly descriptive in nature and have lacked a coherent organizational structure or theoretical framework.

The varied research on blogging motivations has created an opportunity to construct a more comprehensive theory-driven set of motivations which encompass both the influential and non-influential motives found in the studies already described. With a more comprehensive measure of motivation future research could examine which themes are more or less relevant to bloggers, and how different motivations for blogging relate to personality factors and coping styles, as well as variables such as persistence with blogging, satisfaction with the blogging experience, and psychosocial outcomes of blogging. Such research requires as a preliminary a set of motivational categories of relevance to bloggers and reliable and valid measures of these motivations.

In Chapter 3 blogging motivations were examined from a Uses and Gratifications theory (U&G) perspective. In particular, potential blogging
motivations were considered in terms of an expanded model of Katz et al.'s (1973) five factor model of needs. A summary table including examples of the types of each need can be seen in Table 3.1 (p. 41). This expanded model provides a potential framework for generating and exploring a comprehensive list of potential blogging motivation items.

7.2.2 Aims

In light of the above, the aim of the present analysis was (a) to develop an extensive set of items relating to motivations for blogging, based on Katz et al.'s (1973) U&G framework and the motivational themes generated from qualitative data collected in Study 1 and described in the literature (see Chapter 3), (b) to conduct an exploratory factor analysis on these items to create a comprehensive measure of blogging motivations, and (c) to validate the scale by examining relations with age, gender, measures of psychosocial well-being, and by comparing social networkers who were experienced bloggers with inexperienced bloggers, former bloggers, and social networkers who had never blogged on the factors.

In terms of gender, differences in blogging motivations have generally been small (Hollengaugh, 2011) or absent (Fullwood et al., 2009), possibly due to gender differences in internet usage shrinking with the proliferation of this medium, and those that do exist being mediated by age or experience (Shaw & Gant, 2002; Weiser, 2000). Hollengaugh (2011) found females were slightly more likely to use their blogs for archiving (cognitive needs) or socializing (social integrative needs), and males slightly more likely to use their blogs for professional purposes (personal integrative needs). Lu and Hsiao (2008) also found men were more likely to use their blogs for personal outcomes, while women were more likely to use them for self-expression and creative works (Lu & Hsiao, 2008; Pedersen & Macafee, 2007). Also, Baker and Moore (2011) found that females were more likely to exhibit a therapeutic blogging style (affective needs), expressing emotions and negative affect. In light of these findings, few gender differences were expected in terms of motivation. If gender differences did exist, it was expected that females would be more likely motivated by archiving, socializing, creative self-expression, and
affective expression, and males more likely motivated by personal and professional advancement.

Hollengaugh (2011) found very minor relationships between blogging motivation and age, with younger bloggers more likely to use their blogs to pass time (tension release needs), and older bloggers more likely to blog to help others (generativity needs). Younger bloggers are generally more likely to use their blogs for personal expression (personal integrative needs), while older bloggers are more likely to blog about external content (cognitive needs) (Wei, 2009). It was thus expected that younger bloggers would be motivated to personally express themselves and as a consequence to self-disclose more (Fullwood et al., 2009; Miura & Yamashita, 2007; Schouten, Valkenburg, & Peter, 2007), as well as to blog for entertainment or tension release (Hollengaugh, 2011), while older bloggers were expected to blog to help others and provide information (Hollengaugh, 2011).

A number of measures of psychosocial well-being (online bridging, online bonding, social provisions, emotional distress, loneliness, social anxiety) were also utilized to validate the blogging motivations. As most relationships start on the internet as bridging relationships (Galston, 2000), and blogging is often heralded for its ability to allow users of diverse backgrounds to connect (Doctorow, 2002; Nardi et al., 2004), all blogging motivations were expected to be related to online bridging social capital. Motivations more specifically related to social integrative needs such as creating closer social connections were expected to be related to online bonding and social provisions. Motivations related to affective needs such as emotional self-expression were expected to be related to emotional distress, loneliness, and social anxiety. Likewise cognitive motivations related to diarizing and the processing of personal and emotional experiences (e.g., Archiving; Documenting experiences; Diarizing; Organizing thoughts; Forming and reflect on ideas) were also expected to be related to measures of emotional distress, loneliness, and social anxiety.

Overall, it was predicted that because the motivations created in the present study were generated from research on blog motivations, that they would be stronger among more experienced and prolific bloggers.
7.2.3 Item Creation

Initially, 51 items representing theorized motivations for blogging were created or adapted from the literature reviewed in Chapter 3 (p. 34) and the qualitative data from Study 1 (Chapter 6, p. 107) and classified using the adapted Katz et al. (1973) model of classification presented in Chapter 3, Table 3.1 (p. 41). In all, six major groupings of items were created which described potential motivations for bloggers. These groupings were meant to be representative of many of the cognitive, affective, social integrative, personal integrative, tension release, and generativity needs of bloggers. The following sections detail the rationale for the item generation and provides lists of the individual items.

7.2.3.1 Cognitive Needs

Cognitive needs are pervasively described throughout the blogging literature. One of the more common themes is the idea of the blog as a tool for documenting one's life. Nardi et al. (2004) described their theme 'To document my life' as a process of blogging which is similar to traditional pen and paper diaries where the author documents their experiences ranging from day to day aspects to life changing events. McCullagh (2008) found that nearly two-thirds of her 1200 blogger sample considered documenting and sharing their life a main reason for blogging, more than any other motivation. However McCullagh potentially combined two separate constructs in this item, sampling first the idea of blogging to document one's life, and second the idea of sharing one's life with others (which may reflect personal integrative needs discussed in more detail in Section 7.2.3.4, p. 161). Therefore it was decided to examine these aspects independently in the present research.

Nardi et al. (2004) went on to describe that life-documentation could further contribute to the idea of 'Blogging as Muse' where the blogger uses entries to make sense of life and experiences. For example, Blood (2002) and Doctorow (2002) described blogs as being helpful for thinking and learning, as writing ideas helps organize them. This concept has not been examined at all quantitatively, so items were created to represent this aspect as well.
Huang et al. (2008) suggested another major reason for reading blogs was to seek out new information and knowledge, either individually or through interacting with others. Nardi et al. (2004) pointed out that not only can communities educate each other, but that actual educational committees and distance education classes already utilize blogs to share knowledge or improve skills.

Items intended to sample archiving, cognitive engagement, knowledge and skills acquisition, and thought organization generated from the literature review in Chapter 3 and the qualitative data from Study 1 can be seen in Table 7.1.

Table 7.1
Items Intended to Sample Cognitive Needs

<table>
<thead>
<tr>
<th>I use my blog/I use my social network page...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Archiving; Documenting experiences; Diarizing</strong></td>
</tr>
<tr>
<td>To keep a record of what I'm doing</td>
</tr>
<tr>
<td>To keep a record of things I'm learning</td>
</tr>
<tr>
<td>To document my experiences</td>
</tr>
<tr>
<td>To practice writing</td>
</tr>
<tr>
<td>To store information</td>
</tr>
<tr>
<td><strong>Cognitive engagement with others</strong></td>
</tr>
<tr>
<td>To discuss world events</td>
</tr>
<tr>
<td>To exchange opinions</td>
</tr>
<tr>
<td><strong>Knowledge &amp; skill acquisition; Information search</strong></td>
</tr>
<tr>
<td>To keep aware of current issues</td>
</tr>
<tr>
<td>To learn new knowledge</td>
</tr>
<tr>
<td>To learn new skills</td>
</tr>
<tr>
<td><strong>Organize thoughts; Form and reflect on ideas</strong></td>
</tr>
<tr>
<td>To make sense of my experiences</td>
</tr>
<tr>
<td>To refine my thinking</td>
</tr>
</tbody>
</table>

7.2.3.2 Affective Needs

The expression of thoughts, feelings and emotions through blogs has been described by Nardi et al. (2004) as 'Blogging as catharsis'. This concept is well described throughout blogging literature, and in Study 1 feedback regarding blogging and affective well-being gathered the second highest number of comments highlighting the perceived importance of its role in blogging. Blogs can be utilized in a way similar to pen and paper journals, in that they can provide a space for venting...
emotions (Gumbrecht, 2004). They have been described as enabling people to respond to both ordinary daily experiences and emotionally charged personal situations (Jacobs, 2003). Huang et al. (2008) describe 'Affective Exchange' or the exchange of emotional material between peers as a significant motivation for reading blogs, where readers can express their feelings and care in comments to the blog author. McCullagh (2008) found that nearly one-fifth of bloggers consider discussing problems with others a major influence in their blogging. Despite this, only a few items have been developed to sample this aspect of blogging.

Even fewer papers have highlighted the positive affective nature of blogging. Jung, Youn, and McClung (2007) proposed individuals may be motivated to blog by enjoyment. Enjoyment was only a minor motive in Study 1 with only 3% of the total comments discussing the activity of blogging in terms of pleasure. Some of the literature on potential positive affect appears to overlap with items related to Tension Release needs, and is addressed later in the Tension Release section (Section 7.2.3.5, p. 162).

Items intended to sample motivations related to pleasure, autotherapeutic expression, and emotional exchange can be seen in Table 7.2.

Table 7.2.
*Items Intended to Sample Affective Needs*

<table>
<thead>
<tr>
<th>I use my blog/I use my social network page...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emotive and Autotherapeutic Expression</strong></td>
</tr>
<tr>
<td>To vent and let off steam</td>
</tr>
<tr>
<td>To make statements about things that bother me</td>
</tr>
<tr>
<td>An outlet for feelings and thoughts</td>
</tr>
<tr>
<td>To express my feelings</td>
</tr>
<tr>
<td><strong>Exchanging emotions with others</strong></td>
</tr>
<tr>
<td>To discuss problems with others</td>
</tr>
<tr>
<td>To get support from others</td>
</tr>
<tr>
<td><strong>Pleasure</strong></td>
</tr>
<tr>
<td>To enjoy myself</td>
</tr>
</tbody>
</table>

7.2.3.3 Social Integrative Needs

Inherent in the idea of seeking help from others and connecting with others, is the idea of an online community and social support. Social well-being was the greatest
area of blogging discussion in Study 1. As most blogs have a 'readership', the idea of 'others' is an important aspect of blogging (Trevino, 2005). Readers can interact with authors through a ‘comment’ feature which allows readers to respond to entries (Coates, 2004), and thus blogging can be viewed as a form of asynchronous communication. However, in blogs the readers must seek out the blogger, thus creating a network of individuals (Harris, 2004), connected in various ways. Nardi et al. (2004) describe the concept of 'Blogging as a community forum' where a collection of related individuals contribute with each other. Through community interaction bloggers and readers alike potentially open themselves up to aspects of social support, friendship, and positive interaction.

McCullagh (2008) noted that blogging social networks can be composed of people from FTF life, as well as new people from online. McCullagh found that nearly one-fifth of bloggers stated that networking and meeting new people was a main goal, and a third used blogging as a way to stay in touch with friends and family. A major component of Huang et al. (2008) Affective Exchange factor involved keeping in contact with friends and being involved in friends' lives. Jung et al. (2007) also had a small factor named Communication With Family And Friends which also involved staying in contact with others. Thus, the idea of community, friendship, family, and connection is a substantial one in the literature, and one that can overlap with emotional aspects. In the present study emotional support was included in the Affective needs category.

Items intended to reflect the community discourse with new and existing members of an individual's social network can be seen in Table 7.3.
Table 7.3.
*Items Intended to Sample Social Integrative Needs*

<table>
<thead>
<tr>
<th>I use my blog/I use my social network page...</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Community space; Community discourse</em></td>
</tr>
<tr>
<td>To feel part of the community</td>
</tr>
<tr>
<td>To exchange with others with similar interests</td>
</tr>
<tr>
<td><em>Creating social connections</em></td>
</tr>
<tr>
<td>To meet new people</td>
</tr>
<tr>
<td>To network</td>
</tr>
<tr>
<td><em>Social Engagement; Communication</em></td>
</tr>
<tr>
<td>To communicate with distant friends</td>
</tr>
<tr>
<td>To stay in touch with friends and family</td>
</tr>
<tr>
<td>To keep friends involved in my life</td>
</tr>
<tr>
<td>To improve my relationships</td>
</tr>
</tbody>
</table>

7.2.3.4 *Personal Integrative Needs*

A number of authors have commented on potential personal integrative needs of bloggers. Jung et al. (2007) described the motivation *Self-expression* as a blogger's desire to tell others about themselves and to provide information to others. This title expresses the idea of both the blogger as an expert through their experiences, and as willing to share these experiences with others through their blog. However, McCullagh (2008) found that while half the bloggers she sampled considered creative self-expression as a main reason for blogging, only one sixth of bloggers found sharing knowledge and skills with others to be a main motivation. This is suggestive of a more egocentric form of sharing, with actively helping others falling more accurately under the genre of Generativity needs (to follow in Section 7.2.3.6, p. 163). Aspects of this more personally centered form of self-expression are also partially described by Nardi et al. (2004) in 'Blogging as commentary' where a blogger expresses their opinions in their posts. In Study 1 the resulting feedback often led to insight through introspection and contributed to a person's self-identity. Thus showing oneself and one's opinions to others can help fulfill Personal Integrative needs.

Needs relating to professional advancement are also included as Personal Integrative needs. Professional needs were present in Jung et al. (2008) factor
analysis, where bloggers attempted to utilize their blogs to promote themselves and find a job. However, the relative importance of meeting professional needs is unclear, with McCullagh (2008) finding that making money was an important aspect for fewer than 2% bloggers, and Study 1 showing similar results with only 1.55% of blogging comments relating to professional advancement.

Items intended to reflect aspects of self-expression, exhibitionism, identity management, and professionalism can be seen in Table 7.4.

Table 7.4
Items Intended to Sample Personal Integrative Needs

<table>
<thead>
<tr>
<th>I use my blog/I use my social network page...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exhibitionism; Show self to others</strong></td>
</tr>
<tr>
<td>To tell others about myself</td>
</tr>
<tr>
<td>To provide personal info about myself</td>
</tr>
<tr>
<td>To show myself to others</td>
</tr>
<tr>
<td>To show my personality</td>
</tr>
<tr>
<td>To share experiences</td>
</tr>
<tr>
<td>To share interests</td>
</tr>
<tr>
<td><strong>Express thoughts &amp; opinions; Ego gratification</strong></td>
</tr>
<tr>
<td>To influence others thinking</td>
</tr>
<tr>
<td>To engage in creative expression</td>
</tr>
<tr>
<td>To entertain people</td>
</tr>
<tr>
<td><strong>Identity management; Following a trend</strong></td>
</tr>
<tr>
<td>Because it's the thing to do</td>
</tr>
<tr>
<td>Because everyone else is doing it</td>
</tr>
<tr>
<td><strong>Professionalism; Self-promotion; Publication; Reputation</strong></td>
</tr>
<tr>
<td>To post my professional resource</td>
</tr>
<tr>
<td>To get a job</td>
</tr>
<tr>
<td>To make money</td>
</tr>
<tr>
<td>To gain publicity and recognition</td>
</tr>
<tr>
<td>To publish my work</td>
</tr>
</tbody>
</table>

7.2.3.5 Tension Release Needs

While many bloggers may be interested in the exchanging of knowledge, skills, opinions, and support, it seems that entertainment is also of a high value to both bloggers and readers. McCullagh (2008) found that one third of bloggers thought that entertaining others was an important motivator for their blogging. Huang et al.
(2008) suggest there is a prime audience for this, and found Entertainment to be a major factor for readers who pass time, beat boredom, and have fun. Jung et al. (2007) likewise had a factor for Passing Time and defeating boredom, as well as for Entertainment and enjoyment. Entertainment may thus be a motivation more important to blog readers than blog authors.

Items included to sample the tension release motivations of blogging for entertainment and to pass time can be seen in Table 7.5.

Table 7.5
*Items Intended to Sample Tension Release Needs*

<table>
<thead>
<tr>
<th>I use my blog/I use my social network page...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entertainment</strong></td>
</tr>
<tr>
<td>To try something new</td>
</tr>
<tr>
<td>For entertainment</td>
</tr>
<tr>
<td><strong>Pass time</strong></td>
</tr>
<tr>
<td>To occupy time</td>
</tr>
<tr>
<td>To pass time when bored</td>
</tr>
</tbody>
</table>

7.2.3.6 *Generativity Needs*

Generativity needs have also been described in the literature, mainly limited to providing information and assistance to other bloggers and internet users. While not in a specific theme or subtheme in Study 1, generativity permeated throughout the themes discussed and was particularly evident in comments on support, assistance from others, and increased well-being through blogging. In the 'education, learning, and enrichment' subtheme there were numerous comments on how helpful it was to have access to other people's knowledge and experience. McCullagh (2008) found one-sixth of bloggers stated an important aspect of their blogging was to share knowledge or skills with others. Likewise, Hollengaugh (2011) and Ekdale et al. (2010) suggested the motivation to share information may overlap with the motivation to help others.

Items intended to sample helping and sharing information with others can be seen in Table 7.6.
Table 7.6
*Items Intended to Sample Generativity Needs*

<table>
<thead>
<tr>
<th>I use my blog/I use my social network page...</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Helping others</em></td>
</tr>
<tr>
<td>To raise awareness about issues</td>
</tr>
<tr>
<td>To motivate others to action</td>
</tr>
<tr>
<td><em>Sharing information with others</em></td>
</tr>
<tr>
<td>To share knowledge</td>
</tr>
<tr>
<td>To provide information to others</td>
</tr>
</tbody>
</table>

7.2.3.7  Summary

In total, 51 possible motives for blogging across the six U&G domains were developed into scale items (see Appendix II, p. 277, for full scale).

7.2.4  Methodology

7.2.4.1  Sampling Method

In Study 2 participants were recruited for the research via advertisements on the social networking site Facebook.com. Volunteer participants who clicked on the advertisements were redirected to the survey website where they were presented with the Explanatory Statement and Consent page for the online self-administered self-report survey. Further details of this methodology are listed in Chapter 5 (p. 98).

7.2.4.2  Participants

As described in Chapter 5, there were 813 responses from the advertisements, but 210 surveys were discarded due to missing more than 10% of their data. A total of 603 respondents (237 males and 366 females) were retained for the study. Participants ranged in age from 16 to 69 years (M=29.88, SD=11.30). Self-reported living arrangements identified 13.8% of the participants as living alone, 20.7% as living with a friend, 33.2% as living with their parents, and 32.3% as living with a partner. Approximately 22% of the participants had not studied beyond high school and 22% of the participants had commenced studies at graduate level or beyond,
with the remaining 56% of the population commencing or completing tertiary qualifications. Over 77% of the participants reported being employed, with 43.4% employed on a full time basis.

Participants were asked whether they currently, or in the past, maintained a blog. Social network site (SNS) users who did not maintain a blog and had never blogged were classified as 'social networker / never blogged' (never blogged; n=231). Users who had blogged in the past but no longer maintained a blog were classified as 'social networker / former blogger' (former blogger; n=147). Users who had maintained a blog for less than a year were classified as 'social networker / inexperienced blogger' (inexperienced blogger; n=95). Finally, users who had maintained a blog for one year or longer were classified as 'social networker / experienced blogger' (experienced blogger; n=130). When asked if they had kept a pen and paper journal in the past only 25.2% of participants had not, with 84.6% of experienced bloggers, 74.7% of inexperienced bloggers, 81.6% of former bloggers, and 64.9% of social networkers who had never blogged having done so.

7.2.4.3 Materials

In addition to the motivations for blogging items, a number of measures were administered in Study 2 to establish baseline data on blogger well-being for the longitudinal Study 3, and for use in validating the Blog Motivation Scale in the present study. The psychometric properties of these measures are described in more detail in Section 5.5 (p. 100).

Demographics & Blog Status

These measures are described in Section 5.5.1 (p. 100).

Motivations for Blogging Items

Participants rated the importance of 51 items as possible motivations for their blogging (described above in Section 7.2.3) on 3 point Likert-type scales ranging from 1 (Not at all a reason) through to 3 (A main reason) as per McCullagh’s (2008) study. When rating motivation items bloggers were asked to rate how important
each potential motivation was in relation to their blogging. Non-bloggers were asked to rate how important each motivation was in relation to their social networking.

**The Internet Social Capital Scale (ISCS)**

The ISCS is a 20-item measure of online bridging and bonding social capital (see Section 5.5.7, p. 105).

**The Social Provisions Scale (SPS)**

The SPS is a 24-item measure of social support (see Section 5.5.6, p. 104).

**The Loneliness Scale (LS)**

The LS is a 6-item measure of emotional and social loneliness (see Section 5.5.5, p. 103).

**The Social Phobia Inventory (SPIN)**

The SPIN is a 17-item measure of social anxiety (see Section 5.5.8, p. 105).

**The Depression Anxiety Stress Scale - 21 (DASS-21)**

The DASS-21 is a 21-item measure of emotional distress in terms of depressive, anxiety, and stress symptomatology (see Section 5.5.4, p. 102).

### 7.2.4.4 Procedure

Users who responded to recruitment advertisements on Facebook.com were asked to fill out a questionnaire containing items about their personal demographic characteristics, their motivations for blogging or social networking, their perceived social support (SPA; Cutrona & Russell, 1987) and online social capital (ISCS; Williams, 2006), their perceived depression, stress and anxiety levels (DASS-21; Lovibond & Lovibond, 1995), their perceived social anxiety (SPIN; Connor et al., 2000), and their perceived loneliness (LS; De Jong Gierveld & Kamphuis, 1985; De Jong Gierveld & Van Tilburg, 1999b) to provide baseline data for use in the
7.2.5 Results

7.2.5.1 Exploratory Factor Analysis

Responses to the 51 motivations for blogging items were subjected to a principal components analysis (PCA) using SPSS Version 16. Prior to performing PCA the suitability of the data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Olkin value was .93, exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954) reached significance ($\chi^2=18954.80$, $df=1275$, $p < .0001$), supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of 10 components with eigenvalues exceeding 1, explaining 29.1%, 9.9%, 7.2%, 4.0%, 3.5%, 3.2%, 2.9%, 2.3%, 2.1%, and 2.0% of the variance respectively. An inspection of the screeplot revealed a break after the fourth and seventh components. Using Cattell’s (1966) scree test, it was decided to retain seven components for further investigation. This was further supported by the results of Parallel Analysis (see Table 7.7), which showed only seven components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (51 variables x 603 respondents).
Table 7.7
Comparison of Eigenvalues from Principal Components Analysis (PCA) and the Corresponding Criterion Values Obtained from Parallel Analysis

<table>
<thead>
<tr>
<th>Component number</th>
<th>Actual eigenvalue from PCA</th>
<th>Criterion value from parallel analysis</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14.83</td>
<td>1.62</td>
<td>accept</td>
</tr>
<tr>
<td>2</td>
<td>5.02</td>
<td>1.55</td>
<td>accept</td>
</tr>
<tr>
<td>3</td>
<td>3.70</td>
<td>1.51</td>
<td>accept</td>
</tr>
<tr>
<td>4</td>
<td>2.05</td>
<td>1.47</td>
<td>accept</td>
</tr>
<tr>
<td>5</td>
<td>1.77</td>
<td>1.43</td>
<td>accept</td>
</tr>
<tr>
<td>6</td>
<td>1.61</td>
<td>1.41</td>
<td>accept</td>
</tr>
<tr>
<td>7</td>
<td>1.47</td>
<td>1.38</td>
<td>accept</td>
</tr>
<tr>
<td>8</td>
<td>1.17</td>
<td>1.35</td>
<td>reject</td>
</tr>
<tr>
<td>9</td>
<td>1.07</td>
<td>1.32</td>
<td>reject</td>
</tr>
<tr>
<td>10</td>
<td>1.05</td>
<td>1.30</td>
<td>reject</td>
</tr>
</tbody>
</table>

To aid in the interpretation of these seven components, Varimax rotation was performed. The 7 component solution explained a total of 59.73% of the variance, with Component 1 contributing 11.35%, Component 2 contributing 9.47%, Component 3 contributing 8.63%, Component 4 contributing 8.14%, Component 5 contributing 7.76%, Component 6 contributing 7.57%, and Component 7 contributing 6.82%.

Items with a primary loading of greater than .50 were assigned to individual factors (Stevens, 1986). Using this criterion the rotated solution revealed the presence of a simple structure (Thurstone, 1947), with a number of strong loadings and all variables loading substantially on only one component. The loadings for all the items can be seen in Table 7.8. Items in bold font signify that they exceed the minimum factor loading .50.
Table 7.8  
Varimax Rotation of Seven Factor Solution for 51 Blogging Motivation Scale Items  

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>To raise awareness about issues</td>
<td>.64</td>
<td>.15</td>
<td>.40</td>
<td>.14</td>
<td>.05</td>
<td>-.03</td>
<td>-.09</td>
</tr>
<tr>
<td>To keep aware of current issues</td>
<td>.64</td>
<td>-.07</td>
<td>.06</td>
<td>.15</td>
<td>.20</td>
<td>.22</td>
<td>.13</td>
</tr>
<tr>
<td>To exchange with others with similar interests</td>
<td>.64</td>
<td>.18</td>
<td>.25</td>
<td>.21</td>
<td>.05</td>
<td>.14</td>
<td>.05</td>
</tr>
<tr>
<td>To exchange opinions</td>
<td>.64</td>
<td>.28</td>
<td>.26</td>
<td>.04</td>
<td>-.01</td>
<td>.15</td>
<td>.16</td>
</tr>
<tr>
<td>To learn new knowledge</td>
<td>.63</td>
<td>-.02</td>
<td>-.01</td>
<td>.24</td>
<td>.27</td>
<td>.24</td>
<td>.08</td>
</tr>
<tr>
<td>To share knowledge</td>
<td>.61</td>
<td>.12</td>
<td>.06</td>
<td>.30</td>
<td>.30</td>
<td>.00</td>
<td>-.11</td>
</tr>
<tr>
<td>To discuss world events</td>
<td>.58</td>
<td>.21</td>
<td>.25</td>
<td>.09</td>
<td>.20</td>
<td>.13</td>
<td>.04</td>
</tr>
<tr>
<td>To motivate others to action</td>
<td>.52</td>
<td>.16</td>
<td>.33</td>
<td>.43</td>
<td>.05</td>
<td>-.05</td>
<td>-.12</td>
</tr>
<tr>
<td>To learn new skills</td>
<td>.51</td>
<td>-.05</td>
<td>-.18</td>
<td>.37</td>
<td>.26</td>
<td>.24</td>
<td>.12</td>
</tr>
<tr>
<td>To influence others' thinking</td>
<td>.44</td>
<td>.29</td>
<td>.26</td>
<td>.37</td>
<td>.11</td>
<td>.07</td>
<td>.20</td>
</tr>
<tr>
<td>To meet new people</td>
<td>.39</td>
<td>.09</td>
<td>.23</td>
<td>.32</td>
<td>-.07</td>
<td>.26</td>
<td>.26</td>
</tr>
<tr>
<td>To feel part of the community</td>
<td>.36</td>
<td>.15</td>
<td>.31</td>
<td>.30</td>
<td>-.03</td>
<td>.17</td>
<td>.27</td>
</tr>
<tr>
<td>To tell others about myself</td>
<td>.04</td>
<td>.76</td>
<td>.17</td>
<td>.02</td>
<td>.13</td>
<td>.22</td>
<td>.21</td>
</tr>
<tr>
<td>To show myself to others</td>
<td>.00</td>
<td>.74</td>
<td>.21</td>
<td>.07</td>
<td>.08</td>
<td>.26</td>
<td>.15</td>
</tr>
<tr>
<td>To show my personality</td>
<td>.10</td>
<td>.71</td>
<td>.17</td>
<td>.02</td>
<td>.23</td>
<td>.28</td>
<td>.12</td>
</tr>
<tr>
<td>To provide personal info about myself</td>
<td>.02</td>
<td>.60</td>
<td>.22</td>
<td>.15</td>
<td>-.04</td>
<td>.06</td>
<td>.24</td>
</tr>
<tr>
<td>To share my experiences</td>
<td>.23</td>
<td>.60</td>
<td>.13</td>
<td>.10</td>
<td>.25</td>
<td>-.03</td>
<td>.09</td>
</tr>
<tr>
<td>To provide information to others</td>
<td>.49</td>
<td>.56</td>
<td>.03</td>
<td>.12</td>
<td>.05</td>
<td>.00</td>
<td>-.01</td>
</tr>
<tr>
<td>To share my interests</td>
<td>.40</td>
<td>.55</td>
<td>.07</td>
<td>.09</td>
<td>.21</td>
<td>.20</td>
<td>.10</td>
</tr>
<tr>
<td>To entertain people</td>
<td>.32</td>
<td>.42</td>
<td>.18</td>
<td>.13</td>
<td>.15</td>
<td>.41</td>
<td>-.07</td>
</tr>
<tr>
<td>To vent and let off steam</td>
<td>.04</td>
<td>.22</td>
<td>.72</td>
<td>.02</td>
<td>.33</td>
<td>.23</td>
<td>-.04</td>
</tr>
<tr>
<td>To make statements about things that bother me</td>
<td>.25</td>
<td>.21</td>
<td>.69</td>
<td>.06</td>
<td>.34</td>
<td>.17</td>
<td>-.07</td>
</tr>
<tr>
<td>As an outlet for feelings and thoughts</td>
<td>.16</td>
<td>.24</td>
<td>.68</td>
<td>.08</td>
<td>.40</td>
<td>.11</td>
<td>-.04</td>
</tr>
<tr>
<td>To discuss problems with others</td>
<td>.41</td>
<td>.16</td>
<td>.67</td>
<td>.13</td>
<td>.11</td>
<td>.03</td>
<td>.14</td>
</tr>
<tr>
<td>To express my feelings</td>
<td>.06</td>
<td>.31</td>
<td>.66</td>
<td>.00</td>
<td>.37</td>
<td>.25</td>
<td>-.07</td>
</tr>
<tr>
<td>To get support from others</td>
<td>.34</td>
<td>.19</td>
<td>.60</td>
<td>.25</td>
<td>.11</td>
<td>.04</td>
<td>.16</td>
</tr>
<tr>
<td>To post my professional resource</td>
<td>.25</td>
<td>.01</td>
<td>.02</td>
<td>.79</td>
<td>.11</td>
<td>-.03</td>
<td>.02</td>
</tr>
<tr>
<td>To get a job</td>
<td>.14</td>
<td>-.03</td>
<td>.09</td>
<td>.77</td>
<td>.11</td>
<td>.08</td>
<td>.06</td>
</tr>
<tr>
<td>To make money</td>
<td>.13</td>
<td>.07</td>
<td>.09</td>
<td>.74</td>
<td>.12</td>
<td>.08</td>
<td>-.04</td>
</tr>
<tr>
<td>To gain publicity and recognition</td>
<td>.21</td>
<td>.40</td>
<td>.12</td>
<td>.58</td>
<td>-.01</td>
<td>.10</td>
<td>.11</td>
</tr>
<tr>
<td>To publish my work</td>
<td>.31</td>
<td>.27</td>
<td>.12</td>
<td>.55</td>
<td>.23</td>
<td>.03</td>
<td>-.18</td>
</tr>
<tr>
<td>To store information</td>
<td>.42</td>
<td>.05</td>
<td>-.02</td>
<td>.45</td>
<td>.29</td>
<td>-.03</td>
<td>-.01</td>
</tr>
<tr>
<td>To make sense of my experiences</td>
<td>.07</td>
<td>.11</td>
<td>.38</td>
<td>.12</td>
<td>.67</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>To refine my thinking</td>
<td>.17</td>
<td>.06</td>
<td>.39</td>
<td>.13</td>
<td>.63</td>
<td>.00</td>
<td>-.14</td>
</tr>
<tr>
<td>To keep a record of what I'm doing</td>
<td>.11</td>
<td>.35</td>
<td>.07</td>
<td>.11</td>
<td>.61</td>
<td>.02</td>
<td>.13</td>
</tr>
<tr>
<td>To keep a record of things I'm learning</td>
<td>.32</td>
<td>.15</td>
<td>.12</td>
<td>.25</td>
<td>.61</td>
<td>-.03</td>
<td>-.14</td>
</tr>
<tr>
<td>To practice writing</td>
<td>.26</td>
<td>.04</td>
<td>.19</td>
<td>.26</td>
<td>.56</td>
<td>.15</td>
<td>-.21</td>
</tr>
<tr>
<td>To document my experiences</td>
<td>.07</td>
<td>.43</td>
<td>.24</td>
<td>-.02</td>
<td>.55</td>
<td>.02</td>
<td>-.03</td>
</tr>
<tr>
<td>To express myself creatively</td>
<td>.25</td>
<td>.37</td>
<td>.24</td>
<td>.13</td>
<td>.46</td>
<td>.23</td>
<td>-.20</td>
</tr>
<tr>
<td>To occupy time</td>
<td>.01</td>
<td>.03</td>
<td>.32</td>
<td>-.03</td>
<td>-.01</td>
<td>.71</td>
<td>.20</td>
</tr>
<tr>
<td>To pass time when bored</td>
<td>-.04</td>
<td>.03</td>
<td>.27</td>
<td>-.07</td>
<td>-.02</td>
<td>.71</td>
<td>.26</td>
</tr>
<tr>
<td>To be entertained</td>
<td>.24</td>
<td>.22</td>
<td>.02</td>
<td>.01</td>
<td>.10</td>
<td>.70</td>
<td>.15</td>
</tr>
<tr>
<td>To enjoy myself</td>
<td>.30</td>
<td>.21</td>
<td>.03</td>
<td>-.01</td>
<td>.19</td>
<td>.64</td>
<td>.08</td>
</tr>
<tr>
<td>To try something new</td>
<td>.34</td>
<td>.16</td>
<td>-.05</td>
<td>.14</td>
<td>.14</td>
<td>.57</td>
<td>.03</td>
</tr>
<tr>
<td>Because it's the thing to do</td>
<td>.08</td>
<td>.19</td>
<td>.09</td>
<td>.28</td>
<td>.09</td>
<td>.56</td>
<td>.17</td>
</tr>
<tr>
<td>Because everyone else is doing it</td>
<td>-.08</td>
<td>.11</td>
<td>-.08</td>
<td>.23</td>
<td>-.35</td>
<td>.37</td>
<td>.16</td>
</tr>
<tr>
<td>To communicate with distant friends</td>
<td>.04</td>
<td>.07</td>
<td>-.06</td>
<td>.08</td>
<td>-.09</td>
<td>.16</td>
<td>.85</td>
</tr>
<tr>
<td>To stay in touch with friends and family</td>
<td>.03</td>
<td>.05</td>
<td>-.10</td>
<td>-.09</td>
<td>.07</td>
<td>.18</td>
<td>.84</td>
</tr>
<tr>
<td>To keep friends involved in my life</td>
<td>-.05</td>
<td>.26</td>
<td>.06</td>
<td>.05</td>
<td>.00</td>
<td>.13</td>
<td>.79</td>
</tr>
<tr>
<td>To improve my relationships</td>
<td>.15</td>
<td>.20</td>
<td>.20</td>
<td>.11</td>
<td>-.06</td>
<td>.27</td>
<td>.62</td>
</tr>
<tr>
<td>To network</td>
<td>.30</td>
<td>.11</td>
<td>-.08</td>
<td>.31</td>
<td>-.24</td>
<td>.16</td>
<td>.39</td>
</tr>
</tbody>
</table>

Note: 1–Exchanging Information; 2–Sharing Self; 3–Exchanging Affect; 4–Professional Advancement; 5–Documenting Experiences; 6–Entertainment; 7–Connecting with Others
The items in Component 1 were representative of aspects of sharing knowledge and opinions, and the factor was termed ‘Exchanging Information’ (9 items). The items in Component 2 suggested a desire to share aspects of oneself with others, and the factor was termed ‘Sharing Self’ (7 items). The items in Component 3 were representative of a style of blogging involving emotional expression, venting and seeking support, and the factor was termed ‘Exchanging Affect’ (6 items). The items in Component 4 reflected a style of blogging aimed at increasing profit, professional resources, and publicity, and the factor was termed ‘Professional Advancement’ (5 items). The items in Component 5 were representative of a style of blogging aimed at making sense of experiences through written documentation, and the factor was termed ‘Documenting Experiences’ (6 items). The items in Component 6 were representative of a style of blogging aimed at entertainment and distraction, and the factor was termed ‘Entertainment’ (6 items). Finally, the items in Component 7 were representative of a style of blogging aimed at connecting with others and improving relationships, and the factor was termed 'Connecting with Others' (4 items). Eight items did not load sufficiently on any factor and were eliminated from the scale.

7.2.5.2 Confirmatory Factor Analysis

A second principal components analysis was conducted using the remaining 43 items to confirm a 7 factor structure. The Kaiser-Meyer-Olkin value was .99, exceeding the recommended value of .6 (Kaiser 1970, 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954) reached significance (Chi-square =15960.55, df=903, \(p < .0001\)), supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of 8 components with eigenvalues exceeding 1, explaining 29.65%, 10.66%, 7.38%, 4.72%, 3.80%, 3.60%, 3.27%, and 2.37% of the variance respectively. An inspection of the screeplot revealed a clear break after the seventh component. Using Cattell’s (1966) scree test, it was decided to retain seven components for further investigation. This was further supported by the results of Parallel Analysis (see Table 7.9), which showed only seven components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (43 variables x 603 respondents).
Table 7.9
Comparison of Eigenvalues from Principal Components Analysis (PCA) and the Corresponding Criterion Values Obtained From Parallel Analysis.

<table>
<thead>
<tr>
<th>Component number</th>
<th>Actual eigenvalue from PCA</th>
<th>Criterion value from parallel analysis</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12.75</td>
<td>1.55</td>
<td>accept</td>
</tr>
<tr>
<td>2</td>
<td>4.58</td>
<td>1.49</td>
<td>accept</td>
</tr>
<tr>
<td>3</td>
<td>3.17</td>
<td>1.45</td>
<td>accept</td>
</tr>
<tr>
<td>4</td>
<td>2.03</td>
<td>1.41</td>
<td>accept</td>
</tr>
<tr>
<td>5</td>
<td>1.63</td>
<td>1.38</td>
<td>accept</td>
</tr>
<tr>
<td>6</td>
<td>1.55</td>
<td>1.34</td>
<td>accept</td>
</tr>
<tr>
<td>7</td>
<td>1.41</td>
<td>1.31</td>
<td>accept</td>
</tr>
<tr>
<td>8</td>
<td>1.02</td>
<td>1.29</td>
<td>reject</td>
</tr>
</tbody>
</table>

To aid in the interpretation of these four components, Varimax rotation was performed. The loadings for all the items can be seen in Table 7.10. Items in bold font signify that they exceed the minimum factor loading .50.
Table 7.10
Varimax Rotation of the Seven Factor Solution for the 43 Item Blog Motivation Scale

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>To keep aware of current issues</td>
<td>.67</td>
<td>-.08</td>
<td>.07</td>
<td>.14</td>
<td>.21</td>
<td>.19</td>
<td>.14</td>
</tr>
<tr>
<td>To learn new knowledge</td>
<td>.65</td>
<td>-.02</td>
<td>-.02</td>
<td>.22</td>
<td>.25</td>
<td>.28</td>
<td>.05</td>
</tr>
<tr>
<td>To raise awareness about issues</td>
<td>.65</td>
<td>.14</td>
<td>.43</td>
<td>.16</td>
<td>-.02</td>
<td>.00</td>
<td>-.08</td>
</tr>
<tr>
<td>To exchange with others with similar interests</td>
<td>.63</td>
<td>.19</td>
<td>.25</td>
<td>.21</td>
<td>.15</td>
<td>.03</td>
<td>.03</td>
</tr>
<tr>
<td>To exchange opinions</td>
<td>.63</td>
<td>.28</td>
<td>.26</td>
<td>.05</td>
<td>.16</td>
<td>-.01</td>
<td>.16</td>
</tr>
<tr>
<td>To share knowledge</td>
<td>.62</td>
<td>.12</td>
<td>.08</td>
<td>.30</td>
<td>-.02</td>
<td>.28</td>
<td>-.13</td>
</tr>
<tr>
<td>To discuss world events</td>
<td>.59</td>
<td>.20</td>
<td>.26</td>
<td>.10</td>
<td>.14</td>
<td>.18</td>
<td>.05</td>
</tr>
<tr>
<td>To learn new skills</td>
<td>.54</td>
<td>-.05</td>
<td>-.19</td>
<td>.35</td>
<td>.24</td>
<td>.28</td>
<td>.10</td>
</tr>
<tr>
<td>To motivate others to action</td>
<td>.52</td>
<td>.15</td>
<td>.33</td>
<td>.43</td>
<td>-.05</td>
<td>.04</td>
<td>-.11</td>
</tr>
<tr>
<td>To tell others about myself</td>
<td>.05</td>
<td>.77</td>
<td>.17</td>
<td>.03</td>
<td>.24</td>
<td>.13</td>
<td>.19</td>
</tr>
<tr>
<td>To show myself to others</td>
<td>.00</td>
<td>.75</td>
<td>.20</td>
<td>.08</td>
<td>.26</td>
<td>.10</td>
<td>.14</td>
</tr>
<tr>
<td>To show my personality</td>
<td>.10</td>
<td>.71</td>
<td>.18</td>
<td>.03</td>
<td>.29</td>
<td>.22</td>
<td>.11</td>
</tr>
<tr>
<td>To provide personal info about myself</td>
<td>.02</td>
<td>.62</td>
<td>.21</td>
<td>.16</td>
<td>.07</td>
<td>-.04</td>
<td>.22</td>
</tr>
<tr>
<td>To share my experiences</td>
<td>.24</td>
<td>.59</td>
<td>.14</td>
<td>.09</td>
<td>-.03</td>
<td>.28</td>
<td>.08</td>
</tr>
<tr>
<td>To provide information to others</td>
<td>.49</td>
<td>.56</td>
<td>.05</td>
<td>.12</td>
<td>.01</td>
<td>.04</td>
<td>-.02</td>
</tr>
<tr>
<td>To share my interests</td>
<td>.39</td>
<td>.56</td>
<td>.08</td>
<td>.09</td>
<td>.22</td>
<td>.20</td>
<td>.07</td>
</tr>
<tr>
<td>To vent and let off steam</td>
<td>.03</td>
<td>.21</td>
<td>.75</td>
<td>.04</td>
<td>.24</td>
<td>.30</td>
<td>-.03</td>
</tr>
<tr>
<td>To make statements about things that bother me</td>
<td>.25</td>
<td>.18</td>
<td>.72</td>
<td>.06</td>
<td>.17</td>
<td>.32</td>
<td>-.05</td>
</tr>
<tr>
<td>As an outlet for feelings and thoughts</td>
<td>.15</td>
<td>.22</td>
<td>.70</td>
<td>.09</td>
<td>.11</td>
<td>.37</td>
<td>-.04</td>
</tr>
<tr>
<td>To express my feelings</td>
<td>.06</td>
<td>.30</td>
<td>.68</td>
<td>.01</td>
<td>.25</td>
<td>.34</td>
<td>-.08</td>
</tr>
<tr>
<td>To discuss problems with others</td>
<td>.42</td>
<td>.16</td>
<td>.67</td>
<td>.13</td>
<td>.04</td>
<td>.10</td>
<td>.14</td>
</tr>
<tr>
<td>To get support from others</td>
<td>.34</td>
<td>.20</td>
<td>.58</td>
<td>.25</td>
<td>.04</td>
<td>.11</td>
<td>.15</td>
</tr>
<tr>
<td>To post my professional resource</td>
<td>.25</td>
<td>.02</td>
<td>.02</td>
<td>.81</td>
<td>-.01</td>
<td>.10</td>
<td>.00</td>
</tr>
<tr>
<td>To get a job</td>
<td>.15</td>
<td>-.02</td>
<td>.07</td>
<td>.80</td>
<td>.08</td>
<td>.09</td>
<td>.06</td>
</tr>
<tr>
<td>To make money</td>
<td>.14</td>
<td>.06</td>
<td>.09</td>
<td>.77</td>
<td>.08</td>
<td>.11</td>
<td>-.02</td>
</tr>
<tr>
<td>To gain publicity and recognition</td>
<td>.21</td>
<td>.38</td>
<td>.11</td>
<td>.58</td>
<td>.08</td>
<td>.02</td>
<td>-.07</td>
</tr>
<tr>
<td>To publish my work</td>
<td>.30</td>
<td>.26</td>
<td>.14</td>
<td>.56</td>
<td>.04</td>
<td>.20</td>
<td>-.18</td>
</tr>
<tr>
<td>To occupy time</td>
<td>.00</td>
<td>.04</td>
<td>.33</td>
<td>-.01</td>
<td>.73</td>
<td>-.06</td>
<td>.21</td>
</tr>
<tr>
<td>To be entertained</td>
<td>.21</td>
<td>.23</td>
<td>.02</td>
<td>.02</td>
<td>.73</td>
<td>.09</td>
<td>.14</td>
</tr>
<tr>
<td>To pass time when bored</td>
<td>-.05</td>
<td>.04</td>
<td>.28</td>
<td>-.04</td>
<td>.72</td>
<td>-.07</td>
<td>.26</td>
</tr>
<tr>
<td>To enjoy myself</td>
<td>.27</td>
<td>.23</td>
<td>.04</td>
<td>.01</td>
<td>.68</td>
<td>.15</td>
<td>.04</td>
</tr>
<tr>
<td>To try something new</td>
<td>.33</td>
<td>.17</td>
<td>-.05</td>
<td>.13</td>
<td>.57</td>
<td>.15</td>
<td>.00</td>
</tr>
<tr>
<td>Because it's the thing to do</td>
<td>.11</td>
<td>.16</td>
<td>.07</td>
<td>.24</td>
<td>.51</td>
<td>-.01</td>
<td>.21</td>
</tr>
<tr>
<td>To make sense of my experiences</td>
<td>.08</td>
<td>.08</td>
<td>.38</td>
<td>.09</td>
<td>.50</td>
<td>.71</td>
<td>.02</td>
</tr>
<tr>
<td>To keep a record of what I'm doing</td>
<td>.12</td>
<td>.33</td>
<td>.09</td>
<td>.07</td>
<td>.02</td>
<td>.64</td>
<td>.11</td>
</tr>
<tr>
<td>To refine my thinking</td>
<td>.18</td>
<td>.03</td>
<td>.40</td>
<td>.12</td>
<td>.01</td>
<td>.64</td>
<td>-.14</td>
</tr>
<tr>
<td>To keep a record of things I'm learning</td>
<td>.33</td>
<td>.14</td>
<td>.14</td>
<td>.22</td>
<td>-.01</td>
<td>.62</td>
<td>-.18</td>
</tr>
<tr>
<td>To document my experiences</td>
<td>.07</td>
<td>.41</td>
<td>.27</td>
<td>-.04</td>
<td>.02</td>
<td>.56</td>
<td>-.04</td>
</tr>
<tr>
<td>To practice writing</td>
<td>.27</td>
<td>.02</td>
<td>.20</td>
<td>.27</td>
<td>.15</td>
<td>.56</td>
<td>-.20</td>
</tr>
<tr>
<td>To communicate with distant friends</td>
<td>.05</td>
<td>.08</td>
<td>-.06</td>
<td>-.07</td>
<td>.15</td>
<td>-.11</td>
<td>.87</td>
</tr>
<tr>
<td>To stay in touch with friends and family</td>
<td>.04</td>
<td>.06</td>
<td>-.10</td>
<td>-.08</td>
<td>.17</td>
<td>-.07</td>
<td>.86</td>
</tr>
<tr>
<td>To keep friends involved in my life</td>
<td>-.04</td>
<td>.26</td>
<td>.05</td>
<td>-.04</td>
<td>.12</td>
<td>.01</td>
<td>.80</td>
</tr>
<tr>
<td>To improve my relationships</td>
<td>.16</td>
<td>.21</td>
<td>.17</td>
<td>.11</td>
<td>.26</td>
<td>-.03</td>
<td>.63</td>
</tr>
</tbody>
</table>

Note: 1–Exchanging Information; 2–Sharing Self; 3–Exchanging Affect; 4–Professional Advancement; 5–Entertainment; 6–Documenting Experiences; 7–Connecting with Others
The 7 component solution explained a total of 63.07% of the variance, with Component 1 contributing 11.53%, Component 2 contributing 10.08%, Component 3 contributing 9.92%, Component 4 contributing 8.13%, Component 5 contributing 8.10%, Component 6 contributing 8.03%, and Component 7 contributing 7.29%. Items with a primary loading of greater than .50 were assigned to individual factors (Stevens, 1986). Using this criterion the rotated solution revealed the presence of a simple structure (Thurstone, 1947), with a number of strong loadings and all variables loading substantially on only one component. All items loaded as expected and thus all items were retained for the final scale. Items in bold signify that they exceed the minimum factor loading of .50.

7.2.5.3 Creating Subscales

The ratings on individual items in each factor were summed and divided by the total number of items within the factor and a summated index for each factor was created as a subscale score. The correlations between the seven subscales can be seen below in Table 7.11.

Table 7.11
Intercorrelations between the Seven Subscales of the Blogging Motivation Scale

<table>
<thead>
<tr>
<th>Subscale</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Exchanging Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[2] Sharing Self</td>
<td></td>
<td>.50***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[3] Exchanging Affect</td>
<td></td>
<td>.56***</td>
<td>.55***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[4] Professional Advancement</td>
<td></td>
<td>.60***</td>
<td>.39***</td>
<td>.37***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[5] Documenting Experiences</td>
<td></td>
<td>.53***</td>
<td>.48***</td>
<td>.65***</td>
<td>.42***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[6] Entertainment</td>
<td></td>
<td>.42***</td>
<td>.47***</td>
<td>.41***</td>
<td>.24***</td>
<td>.25***</td>
<td></td>
</tr>
<tr>
<td>[7] Connecting with Others</td>
<td></td>
<td>.13**</td>
<td>.33***</td>
<td>.10*</td>
<td>-.02</td>
<td>-.07</td>
<td>.42***</td>
</tr>
</tbody>
</table>

*** = p < 0.001, ** = p < 0.01, * = p < 0.05
7.2.5.4 Reliability Analysis of Subscales

Reliability analyses were conducted on each of the seven subscales emerging from the Principal Components Analysis. The reliability coefficient for each subscale can be seen below in Table 7.12, as well as their means, standard deviations and number of items.

Table 7.12
The Cronbach’s Alpha Reliability Coefficients, Means and Standard Deviations for the Seven Blogging Style Subscales

<table>
<thead>
<tr>
<th>Subscale Items</th>
<th>Subscale</th>
<th>Alpha Reliability</th>
<th>Indexed Mean</th>
<th>Indexed SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Exchanging Information</td>
<td>9</td>
<td>.88</td>
<td>1.76</td>
<td>.52</td>
</tr>
<tr>
<td>[2] Sharing Self</td>
<td>7</td>
<td>.87</td>
<td>2.07</td>
<td>.54</td>
</tr>
<tr>
<td>[3] Exchanging Affect</td>
<td>6</td>
<td>.91</td>
<td>1.77</td>
<td>.64</td>
</tr>
<tr>
<td>[4] Professional Advancement</td>
<td>5</td>
<td>.82</td>
<td>1.34</td>
<td>.47</td>
</tr>
<tr>
<td>[5] Documenting Experiences</td>
<td>6</td>
<td>.84</td>
<td>1.69</td>
<td>.56</td>
</tr>
<tr>
<td>[7] Connecting with Others</td>
<td>4</td>
<td>.86</td>
<td>2.30</td>
<td>.62</td>
</tr>
</tbody>
</table>

Note: Summated indexes were calculated by dividing the sum of the items for each scale by the number of items in each scale for ease of comparison and to aid in interpretability.

The 43 item, 7 subscale version of the Blogging Motivation Scale (BMS), appears to have suitable alpha reliabilities for each of the 7 subscales as well as a simple 7 factor structure with conceptual homogeneity in factor content.

7.3 Validation of the Blog Motivation Scale

7.3.1 Overview

The seven subscales of the Blog Motivation Scale were examined in relation to gender, age, blogger type (i.e., social networker / experienced blogger, social networker / inexperienced blogger, social networker / former blogger, social networker / non-blogger), and blog content in the following sections in order to establish evidence of the validity of the scale.
7.3.2 **Data Preparation**

Preliminary testing of indexed subscale scores to check for normality revealed no major deviations. The skew and kurtosis for each indexed subscale can be seen in Table 7.13.

Table 7.13
*The Minimum, Maximum, Mean, Standard Deviation, Skew and Kurtosis for each of the Motivation Subscales*

<table>
<thead>
<tr>
<th>Motivation Subscale</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchanging Information &amp; Knowledge</td>
<td>1</td>
<td>3</td>
<td>1.76</td>
<td>.52</td>
<td>.36</td>
<td>-.66</td>
</tr>
<tr>
<td>Sharing Self</td>
<td>1</td>
<td>3</td>
<td>2.07</td>
<td>.54</td>
<td>-.17</td>
<td>-.69</td>
</tr>
<tr>
<td>Exchange Affect</td>
<td>1</td>
<td>3</td>
<td>1.77</td>
<td>.64</td>
<td>.36</td>
<td>-1.05</td>
</tr>
<tr>
<td>Professional Advancement</td>
<td>1</td>
<td>3</td>
<td>1.34</td>
<td>.47</td>
<td>1.65</td>
<td>2.29</td>
</tr>
<tr>
<td>Documenting Experiences</td>
<td>1</td>
<td>3</td>
<td>1.69</td>
<td>.56</td>
<td>.48</td>
<td>-.80</td>
</tr>
<tr>
<td>Entertainment</td>
<td>1</td>
<td>3</td>
<td>1.99</td>
<td>.53</td>
<td>.06</td>
<td>-.73</td>
</tr>
<tr>
<td>Connecting with Others</td>
<td>1</td>
<td>3</td>
<td>2.30</td>
<td>.62</td>
<td>-.66</td>
<td>-.59</td>
</tr>
</tbody>
</table>

While the subscale for Professional Advancement was mildly skewed and kurtosed, a decision was made not to transform the subscale in order to maintain interpretability. Because index scores were being used to facilitate comparison between subscales, none of the subscales revealed univariate or multivariate outliers, with the exception of Professional Advancement which had 11 cases with extreme values (i.e., 3) due to the generally lower endorsement of this motivation by participants. A decision was made to retain the extreme cases due to the large sample population, and to interpret differences within this subscale with caution.

7.3.3 **Differences in Motivation based on Gender**

A one-way multivariate analysis of variance (MANOVA) was utilized to examine whether there were gender differences on the motivation subscales, with each subscale as the dependent variable and gender as the independent variable. Box's Test of Equality of Covariance Matrices exceeded the critical level of .001 ($p = .017$). Levene's Test indicated unequal variances for *professional advancement* so a more conservative alpha level of .01 was selected for the combined dependent variables (Tabachnick & Fidell, 2001). There was a statistically significant
difference between the males and females on the combined dependent variables: 
\[ F(7, 595) = 2.77, \ p = .008; \ \text{Wilks’ Lambda} = .97; \ \text{partial eta squared} = .03. \]

A series of one-way analysis of variance analyses (ANOVAs) were undertaken to examine for differences between the seven motivational categories by gender, utilizing a Bonferroni adjusted alpha level of .007. As Levene’s test indicated unequal variances for *professional advancement* the more conservative Brown and Forsyth's F test of equality of means was utilized for this measure. The results can be seen below in Table 7.14.

Table 7.14
*Summary of Univariate Analyses of Gender Differences for Blogging Motivation Subscales*

<table>
<thead>
<tr>
<th>df (1, 601)</th>
<th>Male M</th>
<th>Female M</th>
<th>F</th>
<th>Sig.</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchanging Information &amp; Knowledge</td>
<td>1.79</td>
<td>1.74</td>
<td>1.26</td>
<td>.26</td>
<td>.20</td>
</tr>
<tr>
<td>Sharing Self</td>
<td>2.08</td>
<td>2.06</td>
<td>.15</td>
<td>.70</td>
<td>.07</td>
</tr>
<tr>
<td>Exchanging Affect</td>
<td>1.73</td>
<td>1.80</td>
<td>1.72</td>
<td>.19</td>
<td>.26</td>
</tr>
<tr>
<td><strong>Professional Advancement</strong></td>
<td><strong>1.41</strong></td>
<td><strong>1.30</strong></td>
<td><strong>7.68</strong></td>
<td><strong>.006</strong></td>
<td><strong>.82</strong></td>
</tr>
<tr>
<td>Documenting Experiences</td>
<td>1.65</td>
<td>1.71</td>
<td>1.44</td>
<td>.23</td>
<td>.22</td>
</tr>
<tr>
<td>Entertainment</td>
<td>1.97</td>
<td>2.01</td>
<td>.70</td>
<td>.40</td>
<td>.13</td>
</tr>
<tr>
<td>Connecting with Others</td>
<td>2.30</td>
<td>2.30</td>
<td>.03</td>
<td>.86</td>
<td>.05</td>
</tr>
</tbody>
</table>

*Levene’s test indicated unequal variances (\(p < .05\)) so the more conservative Brown and Forsyth's F test of equality of means was utilized.

Males and females did not differ significantly on any of the subscales other than Professional Advancement. There was partial support for the predictions relating to gender, with males more motivated to advance their personal careers through their blogs (\(M = 1.41, SD = .51\)) than females (\(M = 1.30, SD = .43\)).

7.3.3.1 Discussion

In line with the studies by Hollengaugh (2011) and Lu and Hsiao (2008), males were more likely to be motivated by personal or professional advancement than females. However, there were no gender differences on any other motivation as with Fullwood et al.’s (2009) research. As gender differences in motivation and usage have generally been decreasing or absent in recent blogging (Fullwood et al., 2009; Hollengaugh, 2011) and internet research (Shaw & Gant, 2002; Weiser, 2000),
minimal gender differences were predicted in terms of motivation. In particular, Weiser (2000) suggested that amongst younger groups of internet users and groups with more experience using ICT, gender differences would be few. The present sample was mostly composed of younger participants who grew up exposed to internet technologies. As such, previous stereotypical gender differences would be less likely to apply as was the case in the present study.

7.3.4 Differences in Motivation based on Age

To examine the relationship between age and the subscales Pearson correlations were calculated and the results can be seen in Table 7.15. Correlations greater than \( r = .10 \) are highlighted in bold.

Table 7.15
*Pearson Correlation Matrix for Age and the Motivation Subscales*

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Age (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchanging Information &amp; Knowledge</td>
<td>.01</td>
</tr>
<tr>
<td>Sharing Self</td>
<td>-.13***</td>
</tr>
<tr>
<td>Exchanging Affect</td>
<td>-.17***</td>
</tr>
<tr>
<td>Professional Advancement</td>
<td>.02</td>
</tr>
<tr>
<td>Documenting Experiences</td>
<td>-.07</td>
</tr>
<tr>
<td>Entertainment</td>
<td>-.16**</td>
</tr>
<tr>
<td>Connecting with Others</td>
<td>.00</td>
</tr>
</tbody>
</table>

\( ** p < .001 \)

Younger people were slightly more motivated than older people to share themselves and their emotions with others, as well as to seek entertainment using blogs and SNSs.

7.3.4.1 Discussion

These results offer support for the convergent validity of the Blog Motivation Scale. However, overall the correlations between age and motivation were small in size. As predicted, younger bloggers were more likely to utilize their blogs for motivations involving elements of self-expression and self-disclosure (Fullwood et al., 2009; Miura & Yamashita, 2007; Schouten et al., 2007), such as *sharing self* which was largely composed of personal integrative items, and *exchanging affect* which was
composed entirely of affective items. It is becoming increasingly common for younger people to express their emotions in more public arenas, as well as to publically test their identities (Fullwood et al., 2009; Huffaker & Calvert, 2005). Also, as Hollengaugh (2011) found, younger bloggers were more motivated to use their blog to meet tension release needs such as passing time and entertainment.

These three subscales may share some commonality. Lee, Im and Taylor (2008) proposed that bloggers may self-disclose on blogs for entertainment, and Olcoń (2003, as cited in Trammell, Tarkowski et al., 2006) suggested self-disclosure may result in pleasure and affective relief, suggesting the motivations of sharing self, exchanging affect, and entertainment may be related through a willingness and openness to utilize the internet for self-disclosure and self-expression. Older bloggers were not more likely to utilize their blogs to help others and exchange information as predicted, although this may be a result of a generally younger sample, and age may be more of a factor in the future when this technology is more readily adapted by older users.

7.3.5 Relationship of Motivations to Measures of Psychosocial Well-being

To examine the relationship between measures of psychosocial well-being and the subscales Pearson correlations were calculated and the results can be seen in Table 7.16. Correlations greater than r=.10 are highlighted in bold.

Table 7.16
Pearson Correlation Matrix for Measures of Psychosocial Well-being and the Motivation Subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Online Bonding</th>
<th>Online Bridging</th>
<th>Social Provisions</th>
<th>Emotional Distress</th>
<th>Loneliness</th>
<th>Social Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Exchanging Information</td>
<td>.09*</td>
<td>.27***</td>
<td>- .08</td>
<td>.09*</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>[2] Sharing Self</td>
<td>.09*</td>
<td>.22***</td>
<td>.07</td>
<td>.11***</td>
<td>.04</td>
<td>.07</td>
</tr>
<tr>
<td>[3] Exchanging Affect</td>
<td>.08</td>
<td>.28***</td>
<td>- .09*</td>
<td>.23***</td>
<td>.19***</td>
<td>.19***</td>
</tr>
<tr>
<td>[4] Professional Advancement</td>
<td>.05</td>
<td>.14**</td>
<td>- .15***</td>
<td>.05</td>
<td>.09*</td>
<td>- .03</td>
</tr>
<tr>
<td>[5] Documenting Experiences</td>
<td>.06</td>
<td>.26***</td>
<td>- .08</td>
<td>.19***</td>
<td>.12**</td>
<td>.11**</td>
</tr>
<tr>
<td>[6] Entertainment</td>
<td>.05</td>
<td>.19***</td>
<td>.01</td>
<td>.05</td>
<td>- .02</td>
<td>.09*</td>
</tr>
<tr>
<td>[7] Connecting with Others</td>
<td>.14**</td>
<td>.08*</td>
<td>.13**</td>
<td>- .01</td>
<td>- .10*</td>
<td>.01</td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01, *** p < .001
A number of motivation subscales were significantly related to measures of psychosocial wellbeing. Each is discussed in turn in the section below.

7.3.5.1 Discussion

The results offer substantial support for the construct validity of the Blogging Motivation Scales with the majority of predicted relationships present. As expected, online bridging was significantly related to all blogging motivations. The ability to form online bridging social capital appears to be an important component of blogging. Also, as predicted connecting with others, which meets social integrative needs, was related to online bonding and social provisions, wherein users create and maintain meaningful, supportive, and exclusive connections with close friends or individuals with related hobbies and interests. In line with higher levels of bonding social capital and social provisions, individuals high in the motivation to connect with others also showed lower levels of overall loneliness.

Also as predicted, motivations related to affective needs and cognitive needs related to diarizing, such as exchanging affect and documenting experiences, were related to emotional distress, loneliness, and social anxiety. It appears that individuals with higher levels of psychosocial ill-being may attempt to use their blog to meet their affective and cognitive needs, by venting and processing their emotions respectively (Pennebaker & Chung, in press). Individuals may also be motivated to share themselves when emotionally distressed in an attempt to find others who are experiencing similar events or who have similar dispositions and can offer support. While not predicted, the inverse relationship between professional advancement as a motivation and social provisions may reflect a current lack of social assets and the consequent use of the internet to try to alleviate this deficit. Overall, these results provide support for the convergent validity of the Blog Motivation Scale.

7.3.6 The Relative Importance of Motivations for Bloggers compared to Non-Blogging Social Networkers

Non-blogging social network users were included for comparison in the present study in order to better distinguish between stand-alone bloggers and the large proportion of the population who utilize microblogs through status updates on
SNSs. Choosing to compare bloggers and SNS users also served a second purpose. Recent publications have highlighted comparisons of online applications in general (Rubin, 2002), and SNSs and blogs in particular (Hollengaugh, 2011), as an important area of future research. This section provided an opportunity to examine which motivations were unique to blogging, and which overlapped with SNS usage.

Chapter 2 (p. 12) briefly described similarities and differences between blogs and SNSs. While blogs and SNSs may appear to be similar in form and function (IP & Wagner, 2008), there is no research suggesting that bloggers and SNS users have similar motivations. Blogs are more like public diaries, while SNSs tend to be more like public address books identifying other individuals in the SNS users network. Research on SNS motivations has suggested a primary motivation of keeping connected with and articulating existing social connections (boyd & Ellison, 2008). Numerous motivations for blogging have been proposed, many of which are described as unique to blogging such as 'developing one's thoughts' and 'getting feedback from others' (Hollengaugh, 2011).

Psychosocial starting points and outcomes also appear to differ between bloggers and SNS users. Baker and Moore (2008b) found intending bloggers scored higher on measures of psychological distress and lower on measures of social well-being than social networkers, and despite this disadvantaged starting point bloggers generally made greater psychosocial gains after maintaining their blog for two months (Baker & Moore, 2008a). This change may reflect differences in motivations leading to subsequent differences in the content and usage of blogs and SNSs. Blogs may enable users to consider and discuss personally significant events in more detail (including thoughts, feelings, and aspects of self-exploration) than available in a 150 character brief 'in the moment' update that many SNSs permit. Longer and more thoughtful written entries may contribute to psychosocial gains through the documented mechanisms of expressive writing (Pennebaker & Chung, in press).

Ekdale (2010) found that motivations for bloggers increased the longer a user maintained a blog (i.e., once a blogger became more familiar with the capabilities of the blog application, they were more likely to be motivated to use their blog for various functions). Thus, it was expected that blogging motivations would be related to the length of blog usage, with experienced and inexperienced bloggers scoring
higher on most motivations than former bloggers and social network users. In particular, exchanging information, sharing self, exchanging affect, professional advancement and documenting experiences were all motivations described heavily in the blog literature and thus these subscales were expected to align closely with blog experience. Because only a small number of bloggers have generally described professional advancement as a core motivation (e.g., only 1.55% of comments in Study 1 concerned blogging for advancement), mean group differences on this motive were expected to be smaller. Likewise because entertainment is not extensively documented in the blog literature, and has been documented in a number of more general internet motivation studies (Rubin, 2002; Ruggiero, 2000; Song et al., 2004), no specific hypotheses were made in regards to this dimension. Connecting with others was a motivation heavily described in social networking literature (boyd & Ellison, 2008), and because connecting with others is the major aim of social network site usage it was expected that SNS users would be equal to or higher in this motive than bloggers.

7.3.6.1 Results

A one-way multivariate analysis of variance (MANOVA) was utilized to compare blog user groups on motivations. The blog user groups social networker / experienced blogger (blogging for more than a year), social networker / inexperienced blogger (blogging for less than a year), social networker / former blogger (users who no longer maintained a blog but did so in the past), and social networker / never blogged (users who had never blogged) were compared on their scores for each of the seven subscales. While Box's Test of Equality of Covariance Matrices fell below .001, estimates using Box's M can be too strict with large sample sizes (see Tabachnick & Fidell, 2001, p. 80). Levene's Test indicated unequal variances for exchanging affect, professional advancements, documenting experiences, and connecting with others so a more conservative alpha level of .01 was selected for the combined dependent variables (Tabachnick & Fidell, 2001). There was a statistically significant difference between the four blog user groups on the combined dependent variables: $F(3, 599) = 15.32, \ p < .0001; \ Wilks’\ Lambda=.61; \ partial \ eta \ squared=.15.$
A series of one-way analysis of variance analyses (ANOVAs) were undertaken to examine the differences between the seven motivational categories across blogger groups. A Bonferroni adjusted alpha level of .007 was utilized. Where Levene’s test indicated unequal variances the more conservative Brown and Forsyth's F test of equality of means was utilized. ANOVAs are considered robust for moderate departures from the assumption of variance (Box, 1954), and differences in group size were considerably less than the suggested limit of 4:1 (Moore, 1995). The overall results can be seen below in Table 7.17.

Table 7.17
ANOVA for the Each of the Blogging Motivation Subscales

<table>
<thead>
<tr>
<th>Subscale</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>ηp^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] Exchanging Information</td>
<td>3, 599</td>
<td>17.48</td>
<td>.0001</td>
<td>.08</td>
</tr>
<tr>
<td>[2] Sharing Self</td>
<td>3, 599</td>
<td>11.23</td>
<td>.0001</td>
<td>.05</td>
</tr>
<tr>
<td>[3] Exchanging Affect</td>
<td>3, 474.81</td>
<td>34.67^a</td>
<td>.0001</td>
<td>.15</td>
</tr>
<tr>
<td>[5] Documenting Experiences</td>
<td>3, 546.25</td>
<td>72.08^a</td>
<td>.0001</td>
<td>.28</td>
</tr>
<tr>
<td>[6] Entertainment</td>
<td>3, 599</td>
<td>1.09</td>
<td>.36</td>
<td>.01</td>
</tr>
<tr>
<td>[7] Connecting with Others</td>
<td>3, 420.32</td>
<td>21.27^a</td>
<td>.0001</td>
<td>.11</td>
</tr>
</tbody>
</table>

^a Levene's test indicated unequal variances (p < .05) so the more conservative Brown and Forsyth's F test of equality of means was utilized.

There were significant differences between groups for all of the subscales except entertainment. Means and standard deviations for each blog user group, as well as the results of post-hoc comparisons using the Tukey HSD test, can be seen below in Table 7.18. Results for specific motivations are described in more detail below.
Table 7.18
Means, Standard Deviations, and F Values of the Four Blog User Groups for Each of the Blogging Motivation Subscales

<table>
<thead>
<tr>
<th></th>
<th>Social Networker / Never Blogged</th>
<th>Social Networker / Former Blogger</th>
<th>Social Networker / Inexperienced Blogger</th>
<th>Social Networker / Experienced Blogger</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
</tr>
<tr>
<td>[1] Exchanging Information</td>
<td>1.59 (.47)abcd</td>
<td>1.76 (.49)abcd</td>
<td>1.90 (.54)ab</td>
<td>1.96 (.53)ab</td>
</tr>
<tr>
<td>[2] Sharing Self</td>
<td>1.91 (.55)abcd</td>
<td>2.14 (.54)a</td>
<td>2.17 (.44)a</td>
<td>2.19 (.52)a</td>
</tr>
<tr>
<td>[3] Exchanging Affect</td>
<td>1.48 (.53)abcd</td>
<td>1.81 (.62)abcd</td>
<td>1.97 (.61)a</td>
<td>2.11 (.64)a</td>
</tr>
<tr>
<td>[4] Professional Advancement</td>
<td>1.20 (.37)abcd</td>
<td>1.35 (.49)abcd</td>
<td>1.46 (.51)a</td>
<td>1.51 (.50)a</td>
</tr>
<tr>
<td>[5] Documenting Experiences</td>
<td>1.36 (.43)abcd</td>
<td>1.67 (.51)abcd</td>
<td>1.96 (.53)abcd</td>
<td>2.10 (.50)abcd</td>
</tr>
<tr>
<td>[6] Entertainment</td>
<td>1.99 (.53)</td>
<td>2.04 (.53)</td>
<td>2.03 (.52)</td>
<td>1.93 (.55)</td>
</tr>
<tr>
<td>[7] Connecting with Others</td>
<td>2.49 (.50)abcd</td>
<td>2.40 (.57abcd)</td>
<td>2.07 (.69)abcd</td>
<td>2.02 (.67abcd)</td>
</tr>
</tbody>
</table>

a = significant difference from 'never blogged' group; b= significantly different from 'former blogger' group; c = significant difference from 'inexperienced blogger' group; d = significant difference from 'experienced blogger' group

There was a statistically significant difference at the \( p < .0001 \) level in exchanging information scores for the four blogging status groups. The effect size was moderate. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the 'never blogged' group was significantly lower than for former bloggers, inexperienced bloggers, and experienced bloggers. Former bloggers scored significantly lower than inexperienced and experienced bloggers. Inexperienced and experienced bloggers did not differ significantly in scores. The results suggest that exchanging information and knowledge is of a lesser importance for non-bloggers than for bloggers, particularly experienced bloggers.

There was a statistically significant difference at the \( p < .0001 \) level in sharing self scores for the four blogging status groups. The difference in mean scores between groups was low to moderate. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the 'never blogged' group was significantly lower than for former, inexperienced, and experienced bloggers. Former, inexperienced and experienced bloggers did not differ significantly. The results suggest that individuals who started a blog were more likely to be motivated to share themselves with others on their blog or social network page than individuals who had never started a blog.
There was a statistically significant difference at the $p < .0001$ level in *exchanging affect* scores for the four blogging status groups. The difference in mean scores between groups was large. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the 'never blogged' group was significantly lower than for former, inexperienced, and experienced bloggers. Former bloggers scored significantly lower than experienced bloggers, but did not differ significantly from inexperienced bloggers. Inexperienced and experienced bloggers did not differ significantly in scores. The results suggest that bloggers, and in particular experienced bloggers, are more likely to be motivated to exchange affect when they post on their blog than social network users posting on their SNS page.

There was a statistically significant difference at the $p < .0001$ level in *professional advancement* scores for the four blogging status groups. The difference in mean scores between groups was moderate. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the 'never blogged' group was significantly lower than for former, inexperienced, and experienced bloggers. Former bloggers scored significantly lower than experienced bloggers, but did not differ significantly from inexperienced bloggers. Inexperienced and experienced bloggers did not differ significantly in scores. The results suggest that bloggers, and in particular experienced bloggers, are more motivated by *professional advancement* to post on their blogs than non-bloggers.

There was a statistically significant difference at the $p < .0001$ level in *documenting experiences* scores for the four blogging status groups. The difference in mean scores between groups was quite large. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the 'never blogged' group was significantly lower than for former, inexperienced, and experienced bloggers. Former bloggers scored significantly lower than inexperienced and experienced bloggers. Inexperienced bloggers scored significantly lower than experienced bloggers. The results suggest that active bloggers are more likely to be motivated to document their experiences than former or non-bloggers.

There was no statistically significant difference in *entertainment* scores for groups. Entertainment as a motivation was of similar strength for non-blogging social networkers and bloggers alike.
There was a statistically significant difference at the $p < .0001$ level in connecting with others scores for the four blogging status groups. The difference in mean scores between groups was moderate. Post-hoc comparisons using the Tukey HSD test indicated that the mean scores for the 'never blogged' and 'former blogger' groups were significantly higher than for 'inexperienced blogger' and 'experienced blogger' groups. Social networkers who had never blogger or formerly blogged did not differ significantly in scores, nor did inexperienced and experienced bloggers. The results suggest that SNS users are more motivated to connect with others on their social network pages than bloggers through their blog posts.

7.3.6.2 Discussion

As predicted most documented blogging motivations were stronger for bloggers than social networkers, and in particular for more experienced bloggers. This supports Ekdale's (2010) finding that blogging motivations may increase with usage, and contributes to the construct validity of the Blogging Motivation Scale in terms of convergent validity. Also as predicted connecting with others was a strong motivation for social network users. The motive to use CMC for entertainment did not differ across the four groups, suggesting entertainment may be of equivalent value to non-blogging social networkers and bloggers alike.

For all subscales except entertainment bloggers differed significantly from social networkers who had never blogged, providing support for the construct validity of the scale in terms of discriminant validity. The most unique blogging motivations were documenting experiences and exchanging affect suggesting the continued primacy of pen and paper diary functions for bloggers, and these subscales were largely effective in differentiating between bloggers and SNS users. Exchanging information, sharing self, and professional advancement were also stronger motivations for experienced bloggers than social networkers, but offered less support in terms of the discriminant validity of the measure.

In terms of relative strength, all of the blogging motivations were roughly equivalent for experienced bloggers with means ranging from 1.93 to 2.19, with the exception of professional advancement which had a substantially lower mean for all user types. Experienced bloggers were highest on sharing self, in addition to
documenting experiences and exchanging affect, drawing attention to this added dimension of blogging which transcends the individualistic nature of pen and paper diaries.

7.4 General Discussion

7.4.1 Summary of the Blogging Motivation Subscales

The motivational subscales will be discussed in turn and then group implications will be reviewed. Table 7.19 details the full Blogging Motivation Scale and identifies the relevant type of U&G need each motivation addresses.
<table>
<thead>
<tr>
<th>I use my blog/I use my social network page...</th>
<th>Type of Need</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exchanging Information</strong></td>
<td></td>
</tr>
<tr>
<td>To keep aware of current issues</td>
<td>Cognitive</td>
</tr>
<tr>
<td>To learn new knowledge</td>
<td>Cognitive</td>
</tr>
<tr>
<td>To learn new skills</td>
<td>Cognitive</td>
</tr>
<tr>
<td>To discuss world events</td>
<td>Cognitive</td>
</tr>
<tr>
<td>To exchange opinions</td>
<td>Cognitive</td>
</tr>
<tr>
<td>To raise awareness about issues</td>
<td>Generativity</td>
</tr>
<tr>
<td>To motivate others to action</td>
<td>Generativity</td>
</tr>
<tr>
<td>To share knowledge</td>
<td>Generativity</td>
</tr>
<tr>
<td>To exchange with others with similar interests</td>
<td>Social Integrative</td>
</tr>
</tbody>
</table>
There are several dimensions present in the *exchanging information and knowledge* subscale. The overarching theme seems to be that of intellectual exchange, with this subscale capturing elements of knowledge acquisition, analysis, debate, discussion, motivating others to action, and sharing. The majority of the items in this subscale are from Katz et al.’s (1973) Cognitive (knowledge and skill acquisition; cognitive engagement with others) and Generativity (helping others; sharing information with others) domains. One Social Integrative (community) item also loaded on this factor, encompassing the idea of exchange with others who have similar interests. Discussing world events, exchanging opinions, sharing knowledge, and learning knowledge and skills, all suggest relationships of reciprocal exchange and development. This subscale, however, captures aspects of intellectual exchange beyond personal growth, with generative actions such as helping others learn and raising awareness about important issues. This falls in line with Hollengaugh's (2011) suggestion that knowledge exchange and helping others may be closely related needs in blogging, and similarly with the comments on learning in Study 1.

While not the strongest blogging motive, the results of the current study suggest that the motive *exchanging information and knowledge* is of a higher importance for bloggers, and particularly experienced bloggers, than for SNS users. The type of information exchanged appears to be mainly topical but can range from providing information in a supportive context such as health information, to keeping aware of news, current events, entertainment and gossip. Exchanging health information that is factual and supportive in nature fits well with Chung and Kim's (2008) research on blogging activity among cancer patients and their companions and provides an example of information exchange that could be personal, interpersonal, and generative. People who are inspired or concerned about specific information, be it world events or health risk factors, can seek to address or reconcile information deficits and inconsistencies through their blogs and in the process increase confidence or sense of control.

The current study provides face validity for the subscale in suggesting that like people will connect and share information about common interests using a common vocabulary. Experienced bloggers appear to write or respond to information based
on themes rather than just generating text without attachment to any specific areas of concepts. Nilsson's examination of blogging language (2003, as cited in Gill et al., 2009) suggested that bloggers assume their audience has knowledge of the topics they discuss, suggesting blogs are more context specific than many other forms of writing (Nowson, Oberlander, & Gill, 2005). Bloggers tend to use more in-group language which assumes a familiar audience (e.g., I, me, my we, us, our)(Nilsson, 2003, as cited in Gill et al., 2009).

The strong influence of generativity items in this subscale suggests bloggers may choose to blog about causes they are passionate about in order to help others. Blogs are particularly helpful for this when issues are of a common concern and large groups are needed to assist in their resolution (e.g., global warming cannot be solved by any individual but can possibly be addressed by larger groups). With the progress of health and safety in the modern world, what were previously short-term threats to well-being (animal attack, infection and disease) have moved towards long term threats (lifestyle health diseases, carbon emissions), and often require greater community cooperation to address them (e.g., public health promotion, community interest groups). While generativity items were common in this motivation, it is notable that this scale had no relationship to older age.

7.4.1.2 Sharing Self

The sharing self subscale primarily relates to a unidirectional form of communication in intention, where the blogger displays their persona, experiences and interests. This factor was composed almost entirely of Personal Integrative items reflecting exhibitionism, with aspects of showing oneself and one's personality to others, self description, accounts of personal experiences, and the provision of information to others represented. There was also one Generativity item, on providing information to others, which due to its ambiguous nature appears to have been used in a similar more self-describing function. These motives are closely related to self-expression and self-disclosure, and thus younger bloggers were more likely to be influenced by this motive, possibly for use in identify formation and management.
The motivation to share oneself was the strongest motivator for bloggers. Current and former bloggers were more likely to be motivated by desire to share their personal information with others than social networkers who had never maintained a blog. This appears to indicate that social networkers who had never maintained a blog were more private or were unaware of the potential benefits of using this forum to express themselves with others. Their usage may reflect more of a log of "in the moment" interpersonal experiences, rather than usage as a platform to express core beliefs and interests.

Sharing oneself and personal self-expression as a motive has been described as a form of attention-seeking and ego gratification (Dvorak, 2002). Users may feel important (Dvorak, 2002), or empowered (Blood, 2002) by being at the center of attention and use the blogosphere to be heard and acknowledged. A more humanistic perspective would suggest sharing oneself and feeling heard and understood may have deep intrinsic value independent of publicity or attention seeking. Blogging may provide a supportive environment featuring Roger's (1961) key conditions for personal growth, where authors feel free to explore their thoughts and feelings, and show their true selves to others.

Users high in this motivation were also higher in emotional distress, suggesting they may attempt to gain support or relief through their disclosure. Opportunities to express a congruent self with an audience which is similar in belief, empathic, or at the very least nonjudgmental may create feelings of connectedness at a core level. Such opportunities for congruent and genuine self-expression are not always easily available in day to day life, due to the social constraints which are more present in FTF communication (Suler, 2004; Walther, 1996). The internet affords more opportunities to talk in detail about content not as comfortably discussed casually in a FTF setting (e.g., experiences with STIs). Thus a blog may be used as a forum that lets strangers talk at a much deeper and more intimate level than in public. The anonymity of the blog allows participants to discuss any topic, even the most taboo, and connect with others in ways that would be problematic in FTF encounters.
7.4.1.3 Exchanging Affect

The *exchanging affect* subscale contained Affective items (emotive and autotherapeutic expression; exchanging emotions with others) relating to only negative affect or affective regulation. Positive affective items (e.g., pleasure) were reflected separately in the *entertainment* subscale. The *exchanging affect* subscale encompasses the expression of feelings and emotions, both in venting and by making more measured statements about things that bother the author. Consequently the blog may serve as an outlet for feelings and thoughts, thus serving as a form of cathartic relief. The subscale also reflects aspects of support, with individuals high in this motivation discussing problems with others and seeking support. This theme encompasses the idea of affective relief both in ways similar to traditional pen and paper journals with affective expression, and in ways unique to blogging with the direct goal of social support and problem solving with others.

Bloggers were strongly motivated by a desire to exchange affect. Bloggers, and in particular experienced bloggers, were more strongly motivated by affective exchange than non-blogging social networkers, and this was one strongest motivations in terms of effect size differentiating bloggers from SNS users. Also, as expected, younger bloggers and users higher in emotional distress, loneliness, and social anxiety were more likely to be motivated for affective relief.

Blogging about emotionally rich content has been well documented in general (Cohn et al., 2004; Dvorak, 2002; Nardi et al., 2004), and negative emotional expression in the form of venting has been noted in particular (Ekdale et al., 2010). It appears that with more experience bloggers tend to value this potential use of the blog more, and in turn utilize their blogs more for autotherapeutic expression (i.e., releasing built up mental/emotional pressures). Expressing negative emotions may be preferable as a coping style compared to attempting to contain them and utilizing considerable mental effort towards emotional control. Through the release of this emotional/mental pressure in the act of translating feelings into ideas and then to words bloggers may process their experiences (Pennebaker & Chung, in press). In addition to this personal emotional benefit through reduced stress (Fullwood et al., 2009), blogs also allow the exchange of emotions with others opening authors up to dimensions of emotional support (Chung & Kim, 2008; Huang et al., 2008). Thus
this subscale aligns well with Leung's (2009) finding that one of the four main motivations for producing online content was to share feelings and thoughts with others.

7.4.1.4 Professional Advancement

The professional advancement subscale was composed entirely of Personal Integrative items reflecting professionalism, self-promotion, and reputation. It reflects multiple aspects of professional advancement from finding a job to getting recognition for one's work and making a profit. It also highlights the potential for a blog to be used to post a professional resource for others and create an arena to publish and display one's work.

Professional advancement was the weakest motivator for blogging, suggesting that while this motivation is present for some bloggers it is not characteristic of the entire user population. Indeed, in Study 1 only 1.55% of comments related to the use of blogs for professional advancement. Despite this, bloggers, and in particular experienced bloggers, were more likely to be motivated by professional advancement than non-bloggers. Also, males were generally higher on this motive than females.

As blogs are usually arranged via specific interests this inherently lends the use of the blog application to targeted self-advancement. Experienced bloggers are likely to be more aware of the opportunities inherently available to network with experts not personally known to themselves than social networkers who tend to circulate within their narrower existing network of friends (boyd & Ellison, 2008). Through comments and trackbacks bloggers can interject themselves into discourse with other professionals (experts, critics, admirers) of their respected areas of interest. As a result blogs may create ongoing informal symposiums on a specific area of interest where many of the participants share similar backgrounds. This type of environment creates a situation ideal for networking, and when a specific type of person is being sought a blogger may have a considerable number of candidates to choose from or vice versa. With such networking opportunities for marketing one’s self, opportunities for employment or advancement are supported by the user group.
Positive reinforcement may perpetuate this type of blogging usage with those who blog and successfully use this avenue of self-advancement more likely to continue to attempt to create connections and opportunities. As networking is often a matter of persistence, it is logical that more experienced bloggers would have made more successive efforts and had more success in obtaining professional opportunities from blogging.

7.4.1.5 Documenting Experiences

The documenting experiences subscale was composed of cognitive items (archiving, documenting experiences, diarizing; organizing thoughts, forming and reflecting on ideas) reflecting aspects of record keeping, thought organization, and musing. The elements of archiving and thought organization present in this motive closely resemble those presented by Hollengaugh (2011) in the 'archiving/organizing' motive in her study. Items in this motivation included keeping a record of things the individual is learning or doing and documenting experiences, as well as aspects of development where an individual refines both their thinking and writing styles. Also there is the idea of using the blog to muse (Nardi et al., 2004), where an individual uses the act of documenting and processing experiences through writing to make more sense of them.

Documenting experiences was one of the strongest motivations for bloggers. Bloggers were more likely to be motivated to document experiences than former or non-bloggers, with experienced bloggers in particular scoring significantly higher in this motivation than all other groups. This subscale strongly differentiates between bloggers and non-blogging social network users. Social networking appears to be more strongly related to connecting with others despite the opportunities presented for documenting experiences, while blogs appear to be the preferred platform for meaningfully documenting and reflecting on experiences.

This motive may in particular reflect the contemporary draw of online applications to replace offline ones. Online journals can be maintained nearly anywhere and anytime (e.g., by mobile phone, while at work, while on holiday). Thus it may be a sign of the times that journal keepers record thoughts electronically. Indeed users high in this motivation were also higher in emotional
distress, loneliness, and social anxiety, suggesting the blog may be used by some as a direct analog for the pen and paper diary. Through security setting and redacted blog entries bloggers can intentionally control their level of anonymity and continue to keep their thoughts 'private' in FTF life (Herring et al., 2005).

For blogging documenting and reflecting may be more beneficial than when using an offline journal due to potential access for feedback from an audience of readers. While pen and paper journals require writing and re-reading posts for later reflection, blogs can enable post-hoc reflection electronically with bloggers potentially receiving the instantaneous reflections of others. In this way a more instantaneous reflection, review and organizing of thoughts is possible than with paper journals not read by others. Reflection using peer review of issues and experiences may serve to enable a blogger to overcome difficult issues they diarize about faster. There were a number of comments to this end in Study 1. More experienced bloggers may have had more opportunities to realize the potential value of sharing thoughts with others in terms continued positive growth and development (Doctorow, 2002; Leung, 2009), and therefore ranked this as a more prominent motivation. An additional, and simultaneous, benefit of having one’s words reviewed by others is that writing style and content can be improved by both expert and novice without needing to attend a writing class (Leung, 2009).

Archiving may also help authors keep track of and organize ideas (Doctorow, 2002; Ekdale et al., 2010). A blogger's record of learning may serve as a form of note taking with an unofficial peer review, with which bloggers can refer to later should they need to recover the information discussed. Again this use of the blog was heavily reflected in Study 1. Alternatively some authors may archive to keep a literal record of their life, similar to individuals who keep memoirs. This may be the result of a fear of mortality, where an individual attempts to live on through their documented memoirs even after their life has ended.

7.4.1.6 Entertainment

The *entertainment* subscale was composed mainly of tension relief items (entertainment; passing time), but also reflected personal integrative items (following a trend) and affective items (pleasure). The item 'to try something new'
reflected the theme of novelty, while the idea of trendiness was represented by the item 'because it's the thing to do'. Pleasure was present in the items 'to enjoy myself' and also the tension release need 'to be entertained', and the idea of passing time was present in the items 'to occupy time' and 'to pass time when bored'.

*Entertainment* was one of the weaker motivations for blog authorship and may be more reflective of blog readership. Huang et al. (2008) documented entertainment as a main motivation for reading blogs, which has face validity in light of the minimal effort required to read blog posts when compared to the significant effort required to research and write blog posts. While Wang and Lin (2009) noted bloggers may be motivated to start their blog due to perceived enjoyment, the large number of abandoned blogs may be indicative of the fact that this factor is not strong enough to sustain blogging behavior (Perseus, 2003). There were no significant differences on the *entertainment* motivation between the different types of bloggers and SNS users. Younger people were more likely to blog for entertainment, suggesting the draw of blogging, as with other internet applications, may in part be simply novelty.

### 7.4.1.7 Connecting with Others

The final subscale, *connecting with others*, was composed of Social Integrative items relating to social engagement, communication, interpersonal involvement and the improvement of relationships. This subscale reflected aspects of maintaining or enhancing interpersonal communications with friends and family. Items such as 'to keep friends involved in my life' suggests a more intense bidirectional form of communication and connection, as does the idea of actively improving relationships through the use of online mediums.

While of moderate value for bloggers, this motivation was strongest for non-blogging SNS users. Social networkers valued connecting with others more than bloggers. Although there are similarities between the two applications, the emphasis of SNSs appears to be significantly weighted towards peer interaction with people from FTF life. Social networking sites involve a much more experiential format that utilizes pictures and articulates relationships in an attempt to act, to some extent, as a precursor (or replacement) for actual real life meetings. In contrast, the emphasis
of blogging sites is more related to content and ideas than the people who express them.

boyd [sic] and Ellison (2008) and Donath and boyd's [sic] (2004) suggestion that SNS users are motivated by egocentricity (i.e. being at the center of their network) and identity validation (e.g., social hierarchy theory) may in part explain SNS users' heavy reporting of this motive. Their more superficial focus on connection with peers without the more prevalent blogging motivations of sharing more personal or affective aspects of the user's life may simply reflect a more primitive social usage of this application to validate their social status. Social networkers appear to be involved in this medium for the human connection with all the items identified relating either to friends, family or improved relationships. While blogging can be used for these aspects, blogging does not require this dimension for the publication of personal or topical content. That is, because blogs are content based they do not require elements of human contact to facilitate ongoing activities. With blogging people are responding to both ideas and people, not simply acting as a conduit for traditionally FTF communication and the continuation of offline relationships.

7.4.2 Overlaps and Similarities between Motivations

A number of the subscales were moderately to strongly intercorrelated, particularly with the subscales which were significantly stronger for bloggers than SNS users. It is notable that connecting with others, the strongest SNS motivation, shared the lowest correlations with other blogging motivations. The moderate intercorrelations demonstrate the overlapping nature of the blogging motivations, and suggest the total measure has a high level of conceptual homogeneity.

Bloggers may be motivated to gratify several needs concurrently. For example, someone distressed at watching their partner who is terminally ill with cancer and declining in health may be motivated to post blog entries by their grief in order to vent emotions, to seek and offer support for others experiencing similar events, to raise awareness about cancer and the need for better research into treatment, to document their experiences or recap positive experiences shared with their partner, or merely to distract themselves from the challenging live events which are unfolding. Thus the motivations of users may overlap just as blog posts can change or overlap entry to entry.
7.4.3 Conclusions

The Blogging Motivation Scale shows evidence for reliability and validity in terms of content (face) and construct (convergent and discriminant) validity. This study provides a starting point for an examination of motivations from a U&G perspective and provides the most comprehensive theory driven set of blogging motivations to date. Overall, motives accurately corresponded with Katz. et al.'s (1973) framework with few exceptions (see Table 7.19). Only in the exchanging information motivation was there a considerable amount of overlap between cognitive and generativity needs, highlighting the ability of the blog to be used reciprocally to both share knowledge, to learn knowledge, to help others, and to be helped by others. Also implicit in this subscale was the need for others when blogging, and indeed a social integrative item on exchanging information with others also loaded on this subscale. While Erikson (1968) described generativity as a psychosocial stage for older adults, and Hollengaugh (2011) found helping and informing others was more prevalent among older bloggers, in the present sample there was no relationship between age and exchanging information.

In the present study, with the exception of professional advancement, all of the blog motivations were of a similar strength for experienced bloggers. This parity may explain the range of conflicting primary motives in earlier research with Leung (2009) finding personal integrative (recognition) and social integrative needs predicted greater blog usage, Trammel, Tarkowski et al. (2006) finding cognitive needs and personal integrative needs (self-expression) were greater motivators than social integrative needs (interaction with others), and Hollengaugh (2011) finding cognitive needs (archiving/organizing, helping/informing), social integrative needs (social connection) and generativity needs (helping/informing) were most predictive of blogging behavior. With the exception of professional advancement, a specific type of personal integrative need, it appears all of Katz's (1973) needs are relevant when considering blogging motivations.

There are several limitations to the present study in addition to the normal limitations associated with a cross-sectional survey design. In future studies the sampling could be expanded both in terms of items and ratings. In the present study participants rated the importance of each of the motivation items on a 3-point Likert type scale ranging from 1 (Not at all a reason) to 3 (A main reason) as in the
McCullagh (2008) study. Future studies would benefit from a wider scale range (e.g., from 1 to 9) as this would enable researchers to better differentiate between the strengths of different motivations. Larger ranges are also of benefit when running more complex statistical analyses such as path modeling as they enable the treatment of each item as a continuous variable. Although this study contained the most comprehensive set of theory driven motives to date, the incorporation of a greater number of items, and in particular new items which help differentiate between generativity and other motivations, may also be of benefit. Also, while there are many types of blogs (e.g., sports, technology, personal, etc.) this study did not differentiate between different types of blogs and future studies might examine how motivations vary based on typology.

There are many avenues for future research into blogging motivations. Future studies might include more items and assess the validity of the measure in additional cultures/languages. Motivations might be used to predict psychosocial outcomes, or alternatively be predicted by psychosocial variables. The relationship between personality and motivation could be of interest in terms of both the use and effects of blogging. Further research on how bloggers, social network users, and users of other online media differ in their motivations may be of interest both to web developers as well as in terms of psychosocial outcomes through the needs and gratifications provided by the respected media. Finally, a longitudinal study on the motivations of new bloggers may be of interest. In the present cross-sectional survey experienced bloggers scored higher on the blogging motivation subscales in line with Ekdale et al.’s (2010) study, and it would be of interest to examine how motivations develop over time in bloggers.
# 8 Study 3 - Evaluating the Effects of Blogging

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8.1 Overview

Chapters 6 and 7 described potential motivations for blogging and compared how these motivations were similar and different for bloggers and SNS users. Study 3, reported in this chapter examines how participating in blogging and social networking affects users over a period of 250 days is associated with psychosocial outcomes, both in general and also in relation to the content a blogger writes about.
8.2 Introduction

Baker and Moore (2008a, 2008b) found that over a two month period new bloggers showed a number of psychosocial improvements in well-being beyond those of new social networkers. It of interest to examine whether the blog as an application might have potential prescriptive uses for enhancing well-being, almost as a treatment condition. Because of the high usage of SNSs per capita (Pew Internet & American Life Project, 2010), SNS users provide a good comparison sample of general internet users. Considering the similarities between blog and SNS platforms technologically in general, and in particular with the proliferation of microblogs (often embedded within these platforms), one area of differentiation between blogs and SNSs is the quantity and type of written expressive content posted on a blog. Blogs can potentially be used as a form of expressive writing, where authors write about personally significant content and through this process of expression show personal growth and positive changes in well-being (Pennebaker & Chung, in press). Opportunities for in depth disclosure are more limited on SNSs.

While the Baker and Moore (2008a, 2008b) studies examined changes in a population of new bloggers over a short period of time, research has yet to be conducted into comparative changes for a population of existing bloggers and social networkers over an extended period of time. Further, it would be useful to identify whether particular types of blog content evoke similar changes in well-being as seen in offline therapeutic writing studies. If so, these content areas may offer future pathways for users to deliberately exploit when blogging, with the goal of improving their well-being. As an initial starting point for this line of inquiry it was decided in the present thesis to examine the longitudinal psychosocial effects of maintaining a blog in general, and how the content that blog authors write about affected their well-being in particular.

A means of classifying blogs was required in order to evaluate changes in psychosocial well-being based on content. Section 2.3 (p. 13) described a number of methods for classifying blogs found in the literature. Overall the two factor model of classification of blog content as internal (i.e. personal journal blog) or external (i.e. linking/informational/filter) was the most frequently utilized and appeared to be suitable as a starting point for describing and classifying blogs. However, Herring et
al. (2005) pointed out that even with a simplified two factor classification system it can be difficult to describe some blogs in terms of content, particularly as the content can be varied or change over time, and many blogs do not explicitly state their aim or topic (Bar-Ilan, 2005). One way of overcoming variations between blog posts is to categorize each blog entry individually using qualitative methodologies (Bar-Ilan, 2004, 2005).

While qualitative classifications are of value, particularly through their specificity, a quantitative self-report measure that considers the inconsistent nature of blog posts is significantly easier to implement in research studies. In the present study a self-report Blog Content Measure was created that assessed the frequency with which bloggers posted different types of personal and topical content. Using the personal and topical index scores from this device blogs were grouped in terms of their primary content. Because content can be mixed within a blog, blogs were classified as being primarily personal, topical, or mixed in content. The processes of establishing convergent construct validity for the blog content items in terms of measuring personal and topical content, and of creating blog content types, are described in Section 8.4.2.7 (p. 206) to follow.

8.3 Aims

The initial aim of the study was to evaluate changes in psychosocial well-being in bloggers over a period of 250 days. Because the present sample of bloggers also maintained social network profiles on the website Facebook.com, it was further possible to compare them to users who only maintained a SNS page on Facebook but did not blog in an attempt to differentiate between the effects of a stand-alone blog compared to the status-update microblog feature available to all Facebook users.

A secondary aim was to examine whether the content bloggers write about was associated with their psychosocial well-being. Previous research on emotive writing (see Section 4.3.2, p. 82) has found changes in authors writing about personally significant events (Allan, 1992; Baldwin, 1977; L'Abate, 1991; Largo-Marsh & Spates, 2002; Pennebaker & Chung, in press; Smyth, 1998; Smyth, Stone, Hurewitz, & Kaell, 1999). It was expected that blogs high in personal content would afford more opportunities to express emotions and vent (Nardi et al., 2004), and therefore
more opportunities for improvements in well-being through therapeutic writing (Pennebaker & Chung, in press) and enhanced social support (Baker & Moore, 2008a) than topical blogs. The present study aimed to examine differences in the characteristics of bloggers whose entries were high in personal content compared to those low in personal content or mixed in content in terms of psychosocial well-being. The following two hypotheses were proposed:

\[ H1: \] Bloggers will improve over time on levels of online bonding capital, online bridging capital, social provisions, social anxiety, social loneliness, emotional loneliness, and emotional distress.

\[ H2: \] Changes in well-being will be greater for bloggers posting high levels of personal content, through the mechanism of blogging as a form of therapeutic writing.

### 8.4 Methodology

#### 8.4.1 Participants

Participants recruited in Study 2 were re-contacted after 250 days and resurveyed providing longitudinal data for Study 3. Of the original 378 social network users and 225 bloggers from Study 2 only 180 bloggers and 305 social network users could be re-contacted. The effective and overall response rates can be seen below in Table 8.1. The response rate (46%) was considered sufficient for this style of internet recruitment, particularly in light of the significant length of the first survey in which respondents participated.

<table>
<thead>
<tr>
<th>Study 2</th>
<th>Participants</th>
<th>Study 3</th>
<th>Effective</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>N</td>
<td>Sample</td>
<td>Response</td>
<td>Response</td>
</tr>
<tr>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Rate</td>
<td>Rate</td>
</tr>
<tr>
<td>Bloggers</td>
<td>225</td>
<td>91</td>
<td>50.5</td>
<td>40.4</td>
</tr>
<tr>
<td>SNS Users</td>
<td>378</td>
<td>132</td>
<td>43.3</td>
<td>34.9</td>
</tr>
<tr>
<td>Total</td>
<td>603</td>
<td>223</td>
<td>46.0</td>
<td>37.0</td>
</tr>
</tbody>
</table>
Of the 223 participants who responded, 9 were removed from the sample due to repeated patterns of missing data. Upon inspection of the data this pattern appeared to be an artifact due to an anomaly with the outdated web browsing software they used to complete the survey. A further three cases were removed where participants were non-English speaking and where a visual inspection of the data for these users revealed inconsistencies. Finally three cases were removed during data preparation when they were identified as multivariate outliers (see Section 8.4.4, page 209).

The final number of valid participants was thus reduced to 208 (90 bloggers and 118 social networkers), and the breakdown of participants by blogging status and gender can be seen in Table 8.2. Participation was limited to those from Australia (N=192) and the United States (N=16) to ensure a more homogenous population of users. Participants were 31 male and 59 female bloggers who ranged in age between 18 and 65 ($M=31.62$, $SD=12.00$), and 49 male and 69 female social network site users who ranged in age between 18 and 58 ($M=29.14$, $SD=10.30$).

<table>
<thead>
<tr>
<th></th>
<th>Bloggers</th>
<th>SNS Users</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>31</td>
<td>49</td>
<td>80</td>
</tr>
<tr>
<td>Female</td>
<td>59</td>
<td>69</td>
<td>128</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>118</td>
<td>208</td>
</tr>
</tbody>
</table>

Self-reported living arrangements identified 14.9% of the participants as living alone, 16.8% as living with a friend, 32.2% as living with their parents, and 36.1% as living with a partner. Education levels were mixed with 14.9% possessing a high school degree or less, 55.7% of the sample commencing or completing tertiary qualifications and 28.4% of the participants commencing or completing postgraduate qualifications. The majority of the participants were employed with 41.8% working on a full time basis and 35.6% working part time, and 41.3% of participants were the primary income earner for their families. All of the participants stated they were familiar with the internet having used it for at least 3 years and at least 5 days per week, and 88.0% of participants stated they used the internet daily.
8.4.2 Measures

A number of measures administered in Study 2 were re-administered in Study 3 to evaluate changes in psychosocial well-being. The psychometric properties of these measures are described in Section 5.5 (p. 100).

8.4.2.1 The Internet Social Capital Scale (ISCS)

The ISCS is a 20-item measure of online bridging and bonding social capital (see Section 5.5.7, p. 105).

8.4.2.2 The Social Provisions Scale (SPS)

The SPS is a 24-item measure of social support (see Section 5.5.6, p. 104).

8.4.2.3 The Loneliness Scale (LS)

The LS is a 6-item measure of emotional and social loneliness (see Section 5.5.5, p. 103).

8.4.2.4 The Social Phobia Inventory (SPIN)

The SPIN is a 17-item measure of social anxiety (see Section 5.5.8, p. 105).

8.4.2.5 The Depression Anxiety Stress Scale - 21 (DASS-21)

The DASS-21 is a 21-item measure of emotional distress in terms of depressive, anxiety, and stress symptomatology (see Section 5.5.4, p. 102).

8.4.2.6 Blog Content Measure

The Blog Content Measure is a 12-item self-report measure of the frequency with which bloggers post on various topics (see Section 5.5.3, p. 101).
8.4.2.7 Blog Content Types

The Blog Content Measure provided a means of quantifying the frequency with which bloggers wrote about personal and topical content (i.e., content type), and this measure was selected for use in creating 'blog content types' wherein bloggers were grouped based on the personal, topical, or mixed content they blog about.

Before grouping bloggers by type, it was decided to conduct a principal components analysis of the Blog Content Measure to establish construct validity for the measure by confirming its items effectively differentiated between personal and topical content. Items 1-3 of the scale were intended to be representative of personal/internal content, while items 4-12 were intended to be indicative of external content (see Table 5.3, p. 102 for list of items). While it was acknowledged that all external content could be written about from an internal perspective (Bar-Ilan, 2004), especially for items 4-6 (religion, support groups, social topics), it was expected that the first three items by their solely personal nature would be able to differentiate personal blogs from blogs with other external intents (journalism, portfolio, knowledge blog, filter blog, specialized topical blog, etc).

The 12 items of the Blog Content Measure were subjected to a principal components analysis (PCA) using SPSS Version 16 to confirm the two-factor structure of self-reported blog content. Prior to performing PCA the suitability of the data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Olkin value was .71, exceeding the recommended value of .6 (Kaiser, 1970, 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954) reached significance ($\chi^2=245.11$, df=55, $p < .001$), supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of three components with eigenvalues exceeding 1, explaining 29.7%, 17.5%, and 10.8% of the variance respectively. An inspection of the screeplot revealed a clear break after the second component. Using Cattell’s (1966) scree test, it was decided to retain two components for further investigation. This was further supported by the results of Parallel Analysis (see Table 8.3) which showed only two components with eigenvalues exceeding the corresponding criterion values for a randomly generated data matrix of the same size (12 variables X 90 respondents).
Table 8.3
*Comparison of Eigenvalues from Principal Components Analysis (PCA) and the Corresponding Criterion Values Obtained from Parallel Analysis*

<table>
<thead>
<tr>
<th>Component number</th>
<th>Actual eigenvalue from PCA</th>
<th>Criterion value from parallel analysis</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.27</td>
<td>1.69</td>
<td>accept</td>
</tr>
<tr>
<td>2</td>
<td>1.93</td>
<td>1.50</td>
<td>accept</td>
</tr>
<tr>
<td>3</td>
<td>1.19</td>
<td>1.35</td>
<td>reject</td>
</tr>
</tbody>
</table>

To aid in the interpretation of these two components, Varimax rotation was performed. The two-component solution explained a total of 47.3% of the variance, with Component 1 contributing 26.6% and Component 2 contributing 20.7%. As the sample size was less than 100, the factor loading criterion was set at .50 for each item (Stevens, 1986). Using this criterion the rotated solution revealed the presence of a simple structure (Thurstone, 1947), with a number of strong loadings and all variables loading substantially on only one component. All items loaded on a component with the exception of 'Religion/Faith/Spirituality' which did not reach the factor loading criterion for either. The loadings for all the items can be seen in Table 8.4. The first factor was composed of the items intended to sample 'Topic-oriented' (or informational) blog entries and the second factor was composed of the three personal blog content items.

Table 8.4
*Varimax Rotation of Two Factor Solution for Blog Content Type*

<table>
<thead>
<tr>
<th>Component 1</th>
<th>Component 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topical</td>
<td>Personal</td>
</tr>
<tr>
<td>[8] News / Current events / Sports / Politics</td>
<td>.78</td>
</tr>
<tr>
<td>[12] Education / Academic</td>
<td>.69</td>
</tr>
<tr>
<td>[7] Interests / Hobbies / Creative works / Writing</td>
<td>.59</td>
</tr>
<tr>
<td>[11] Health (general health, specific illness)</td>
<td>.59</td>
</tr>
<tr>
<td>[10] Business / Technology</td>
<td>.58</td>
</tr>
<tr>
<td>[9] Arts / Culture / Entertainment / Gossip</td>
<td>.57</td>
</tr>
<tr>
<td>[5] Support groups</td>
<td>.55</td>
</tr>
<tr>
<td>[3] Family / Friends</td>
<td>.05</td>
</tr>
<tr>
<td>[1] Myself and my experiences</td>
<td>-.02</td>
</tr>
</tbody>
</table>

% of variance explained  
26.59% 20.67%

(N=90 bloggers)
The two expected factors emerged from the self-reported data, representing personal and topical content. To measure how frequently authors published personal or topical content the raw scores for the three personal and nine topical items were summed together. While religion did not load on either type of content, a decision was made to include it in the higher loading topical classification so as not to lose this type of content in future studies. The personal content subscale score ranged from 3 to 15 and had an alpha reliability of .77, while the topical content subscale score ranged from 9 to 45 and had an alpha reliability of .78 suggesting both scales had suitably high inter-item consistencies.

The Blog Content Measure appeared to have sufficient reliability and validity for use in creating blog content types. Because previous research had pointed out that blogs can vary in topic from post to post, and that the content of a blog can be mixed (Herring et al., 2005), it was decided to describe users in terms of both their personal and topical content, thus providing for a 'mixed' classification. An added benefit of considering both dimensions concurrently was the emergence of a null, or 'inert', classification where bloggers were low on both personal and topical content, and a personal and topical group where users were high on both types of posts. This form of classification was a departure from previous research which has generally considered personal and topical blogs separately.

To assign typology the personal and topical scales were both divided using a median split (9 for personal content, 24 for topical content) and bloggers were classified into the following four blogger types; Low Personal/Low Topical, Low Personal/High Topical, High Personal/Low Topical, and High Personal/High Topical. A breakdown of the number of participants in each group can be seen below in Table 8.5. For convenience these groups are referred to from herein as Inert (low personal and topical content), Topical (high topical content only), Personal (high personal content only) and Personal & Topical (high personal and topical content).
8.4.3 Procedure

As described elsewhere, participants from Study 2 were re-contacted 250 days after completing the initial questionnaire and asked to complete a second survey by email. Participants were provided with a unique link containing an embedded code that automatically matched their new data to their original responses.

Individuals who clicked on the URL were linked to a webpage containing a second questionnaire (see Appendix II, page 284). The second questionnaire again contained items on perceived social support (SPA; Cutrona & Russell, 1987), online social capital (ISCS; Williams, 2006), negative affect (DASS-21; Lovibond & Lovibond, 1995), social anxiety (SPIN; Connor et al., 2000), and loneliness (LS; De Jong Gierveld & Kamphuis, 1985; De Jong Gierveld & Van Tilburg, 1999b). It also contained additional demographic items about the content bloggers posted about.

8.4.4 Data Preparation

Prior to analysis of the data, participant responses to measures of online bridging (ISCS), online bonding (ISCS), social provisions (SPS), social anxiety (SPIN), social loneliness (LS), emotional loneliness (LS), and emotional distress (DASS-21) collected at both time points were examined through various SPSS programs for accuracy of data entry, missing values, and fit between distributions and the assumptions of multivariate analysis. Where less than 10% of cases for any variable were missing mean substitution was used to replace the missing values.

There was 1 univariate outlier for online bonding (Study 2), 8 for online bonding (Study 3), 11 for online bridging (Study 2), 12 for online bridging (Study 3), 2 for social provisions (Study 2), 3 for emotional loneliness (Study 3), 3 for social anxiety

---

Table 8.5

Breakdown of the Number of Participants in each Content Based Blog Type

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inert</td>
<td>Low Personal / Low Topical</td>
<td>25</td>
<td>27.8</td>
</tr>
<tr>
<td>Topical</td>
<td>Low Personal / High Topical</td>
<td>22</td>
<td>24.4</td>
</tr>
<tr>
<td>Personal</td>
<td>High Personal / Low Topical</td>
<td>18</td>
<td>20.0</td>
</tr>
<tr>
<td>Personal &amp; Topical</td>
<td>High Personal / High Topical</td>
<td>25</td>
<td>27.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

---
(Study 2), 4 for social anxiety (Study 3), and 10 for emotional distress (Study 2).

Because a sample of greater than 200 was desired for analysis of variance (Waternaux, 1976), a decision was made to Winsorize outliers (Wilcox & Keselman, 2003) and after this process there were no univariate outliers in the data. Three further cases were identified through Mahalanobis distance as multivariate outliers with $p < .001$. One of these cases showed large inconsistencies between the different types of social well-being while the other two showed extremely large changes between levels of social and emotional well-being over the period of measurement. All 3 cases were deleted leaving a total of 208 cases for analysis.

The skewness and kurtosis was examined for each variable collected during Studies 2 and 3 (see Table 8.6 and Table 8.7).

Table 8.6
The Minimum, Maximum, Mean, Standard Deviation, Skew and Kurtosis for each of the Measures of Psychosocial Well-being collected in Study 2

<table>
<thead>
<tr>
<th>Scale</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Bonding Social Capital</td>
<td>14</td>
<td>43</td>
<td>28.88</td>
<td>5.92</td>
<td>-.40</td>
<td>-.41</td>
</tr>
<tr>
<td>Online Bridging Social Capital</td>
<td>22</td>
<td>50</td>
<td>36.84</td>
<td>6.57</td>
<td>-.39</td>
<td>-.23</td>
</tr>
<tr>
<td>Social Provisions</td>
<td>51</td>
<td>96</td>
<td>79.82</td>
<td>11.17</td>
<td>-.56</td>
<td>-.51</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>0</td>
<td>52</td>
<td>15.82</td>
<td>12.46</td>
<td>.88</td>
<td>-.11</td>
</tr>
<tr>
<td>Social Loneliness</td>
<td>3</td>
<td>15</td>
<td>7.39</td>
<td>3.10</td>
<td>.44</td>
<td>-.52</td>
</tr>
<tr>
<td>Emotional Loneliness</td>
<td>3</td>
<td>15</td>
<td>7.39</td>
<td>2.87</td>
<td>.36</td>
<td>-.51</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td>0</td>
<td>110</td>
<td>26.43</td>
<td>23.72</td>
<td>1.35</td>
<td>1.38</td>
</tr>
</tbody>
</table>

Table 8.7
The Minimum, Maximum, Mean, Standard Deviation, Skew and Kurtosis for each of the Measures of Psychosocial Well-being collected in Study 3

<table>
<thead>
<tr>
<th>Scale</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Bonding Social Capital</td>
<td>18</td>
<td>42</td>
<td>29.52</td>
<td>5.37</td>
<td>-.23</td>
<td>-.01</td>
</tr>
<tr>
<td>Online Bridging Social Capital</td>
<td>26</td>
<td>50</td>
<td>38.24</td>
<td>6.33</td>
<td>-.17</td>
<td>-.46</td>
</tr>
<tr>
<td>Social Provisions</td>
<td>48</td>
<td>96</td>
<td>79.00</td>
<td>11.84</td>
<td>-.56</td>
<td>-.70</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>0</td>
<td>44</td>
<td>15.48</td>
<td>11.06</td>
<td>.83</td>
<td>.07</td>
</tr>
<tr>
<td>Social Loneliness</td>
<td>3</td>
<td>15</td>
<td>6.77</td>
<td>3.12</td>
<td>.56</td>
<td>-.64</td>
</tr>
<tr>
<td>Emotional Loneliness</td>
<td>3</td>
<td>13</td>
<td>7.22</td>
<td>2.57</td>
<td>.30</td>
<td>-.65</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td>0</td>
<td>100</td>
<td>24.99</td>
<td>20.56</td>
<td>1.49</td>
<td>2.16</td>
</tr>
</tbody>
</table>
While emotional distress was mildly positively skewed, the level of skew was small and a decision was made not to transform the data as this measure is not normally distributed in the population and transforming the data would reduce its interpretability (Tabachnick & Fidell, 2001). Further mild skewness or kurtosis does not make a substantive difference in the analysis of variance in samples of greater than 200 (Waternaux, 1976).

The alpha reliability coefficient of each measure was calculated and compared to reliabilities previously reported in the literature (see Table 8.8).

<table>
<thead>
<tr>
<th>Study</th>
<th>Previous Research</th>
<th>Report</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Bonding Capital</td>
<td>.69 .80</td>
<td>.90</td>
<td>Williams, 2006</td>
</tr>
<tr>
<td>Online Bridging Capital</td>
<td>.91 .93</td>
<td>.84</td>
<td>Williams, 2006</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>.93 .93</td>
<td>.90</td>
<td>Connor et al., 2000</td>
</tr>
<tr>
<td>Social Loneliness</td>
<td>.86 .91</td>
<td>.73</td>
<td>De Jong Gierveld &amp; Van Tilburg, 2006</td>
</tr>
<tr>
<td>Emotional Loneliness</td>
<td>.76 .75</td>
<td>.74</td>
<td>De Jong Gierveld &amp; Van Tilburg, 2006</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td>.94 .94</td>
<td>.93</td>
<td>Henry &amp; Crawford, 2005</td>
</tr>
</tbody>
</table>

All of the scales showed appropriate reliabilities with the exception of online bonding social capital collected in Study 2 which fell just below the preferred minimum level of .70 at .69.

### 8.5 Results

#### 8.5.1 General Changes in Well-being over Time

**H1:** Bloggers will improve over time on levels of online bonding capital, online bridging capital, social provisions, social anxiety, social loneliness, emotional loneliness, and emotional distress.
To assess whether bloggers improve over time on these key measures, and whether males and females differed on any changes, a series of mixed within-between groups repeated measures Analysis of Variance tests (ANOVAs) were conducted to investigate differences and changes in psychosocial well-being between blog groups (bloggers, social network users) and gender (male, female) between baseline (Study 2 data collection; Time 1) and after 250 days (Study 3 data collection; Time 2). The dependent variables were online bridging and bonding capital as measured by scores on the ISCS, social provisions as measured by the total score on the SPS, social anxiety as measured by total scores on the SPIN, social and emotional loneliness as measured by scores on the LS, and emotional distress as measured by scores on the DASS-21. The means and standard deviations for the dependent variables for each content type at Time 1 and Time 2 can be seen in Table 8.9.
Table 8.9  
The Means And Standard Deviations for Bloggers And Social Network Site Users at Study 2 (Time 1) and Study 3 (Time 2) for each Dependent Variable

<table>
<thead>
<tr>
<th></th>
<th>Male Bloggers</th>
<th>Female Bloggers</th>
<th>Total Bloggers</th>
<th>Male SNS Users</th>
<th>Female SNS Users</th>
<th>Total SNS Users</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Bonding Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Time 1)</td>
<td>31.55</td>
<td>4.72</td>
<td>27.22</td>
<td>6.41</td>
<td>29.32</td>
<td>5.40</td>
</tr>
<tr>
<td>(Time 2)</td>
<td>32.65</td>
<td>5.09</td>
<td>28.65</td>
<td>5.18</td>
<td>30.03</td>
<td>4.78</td>
</tr>
<tr>
<td>Bridging Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Time 1)</td>
<td>40.03</td>
<td>5.68</td>
<td>34.86</td>
<td>6.15</td>
<td>38.07</td>
<td>6.46</td>
</tr>
<tr>
<td>(Time 2)</td>
<td>42.19</td>
<td>5.74</td>
<td>36.63</td>
<td>6.16</td>
<td>39.78</td>
<td>5.60</td>
</tr>
<tr>
<td>Social Provisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Time 1)</td>
<td>79.94</td>
<td>10.92</td>
<td>77.41</td>
<td>13.26</td>
<td>80.22</td>
<td>9.93</td>
</tr>
<tr>
<td>(Time 2)</td>
<td>80.81</td>
<td>11.12</td>
<td>77.84</td>
<td>12.46</td>
<td>78.34</td>
<td>12.16</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Time 1)</td>
<td>15.52</td>
<td>10.80</td>
<td>13.16</td>
<td>11.80</td>
<td>18.54</td>
<td>14.14</td>
</tr>
<tr>
<td>(Time 2)</td>
<td>14.71</td>
<td>8.23</td>
<td>14.41</td>
<td>11.38</td>
<td>16.36</td>
<td>11.08</td>
</tr>
<tr>
<td>Social Loneliness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Time 1)</td>
<td>7.45</td>
<td>2.96</td>
<td>7.92</td>
<td>3.32</td>
<td>7.27</td>
<td>2.96</td>
</tr>
<tr>
<td>(Time 2)</td>
<td>6.48</td>
<td>3.32</td>
<td>7.10</td>
<td>2.87</td>
<td>6.71</td>
<td>3.23</td>
</tr>
<tr>
<td>Emotional Loneliness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Time 1)</td>
<td>7.48</td>
<td>2.72</td>
<td>7.10</td>
<td>2.66</td>
<td>7.66</td>
<td>2.96</td>
</tr>
<tr>
<td>(Time 2)</td>
<td>7.39</td>
<td>2.62</td>
<td>7.06</td>
<td>2.44</td>
<td>7.19</td>
<td>2.53</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Time 1)</td>
<td>27.29</td>
<td>23.52</td>
<td>22.53</td>
<td>26.60</td>
<td>30.58</td>
<td>25.05</td>
</tr>
<tr>
<td>(Time 2)</td>
<td>23.03</td>
<td>15.71</td>
<td>26.69</td>
<td>25.10</td>
<td>25.20</td>
<td>18.61</td>
</tr>
</tbody>
</table>
The main effects for Time can be seen in Table 8.10, along with means and standard error at Time1 and Time2. The main effects for Blog Group can be seen in Table 8.11, along with means and standard errors for bloggers and social network users. There were no significant main effects for gender.

Table 8.10
The F Value, Probability, Partial Eta Squared, Observed Power, and Group Means at Time1 and Time 2 for the Measures of Psychosocial Well-being

<table>
<thead>
<tr>
<th></th>
<th>Time (df=1,204)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Bonding</td>
<td>3.53</td>
</tr>
<tr>
<td>Online Bridging</td>
<td>11.47</td>
</tr>
<tr>
<td>Social Provisions</td>
<td>.66</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>.40</td>
</tr>
<tr>
<td>Social Loneliness</td>
<td>10.61</td>
</tr>
<tr>
<td>Emotional Loneliness</td>
<td>.84</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td>1.32</td>
</tr>
</tbody>
</table>

Table 8.11
The F Value, Probability, Partial Eta Squared, Observed Power, and Group Means for Bloggers and Social Networkers on Measures of Psychosocial Well-being

<table>
<thead>
<tr>
<th></th>
<th>Blog Group (df=1,204)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Online Bonding</td>
<td>15.70</td>
</tr>
<tr>
<td>Online Bridging</td>
<td>28.84</td>
</tr>
<tr>
<td>Social Provisions</td>
<td>.29</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>.93</td>
</tr>
<tr>
<td>Social Loneliness</td>
<td>.31</td>
</tr>
<tr>
<td>Emotional Loneliness</td>
<td>.46</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td>.37</td>
</tr>
</tbody>
</table>
The combined group of bloggers and social networkers experienced a significant decrease in social loneliness and an increase in online bridging capital over the 250 days (see Table 8.10).

Both bloggers and SNS users showed increased mean scores for bridging capital, and when considered individually this change was significant for bloggers \( t(89) = 2.99, \ p = .004 \) and approached significance for SNS users \( t(117) = 1.84, \ p = .084 \). Likewise both bloggers and SNS users experienced decreased mean scores for social loneliness over the 250 days, both individually \( t(89) = 2.181, \ p = .032 \) for bloggers; \( t(117) = 2.22, \ p = .028 \) for SNS users] and as a combined variable (see Table 8.10). When comparing bloggers and social networkers over this time period, bloggers were higher than social network users in both online bridging and bonding social capital (see Table 8.11).

There were two significant interactions between Time and Blog Group for social anxiety \( F(1,204) = 4.03, \ p = .046, \eta^2 = .02, \text{ observed power } = .51 \) and emotional distress \( F(1,204) = 5.62, \ p = .019, \eta^2 = .03, \text{ observed power } = .66 \) where bloggers showed a decreasing slope and social networkers showed a mildly increasing slope. In both cases the effect size was small and the observed power was below the preferred threshold of .80 suggesting the need for replication with a larger sample. Paired t-tests were conducted to examine the locus of each interaction.

For emotional distress bloggers experienced a significant decrease in their total DASS score between Times 1 and 2 \( t(89) = 2.56, \ p = .012 \) with bloggers mean scores decreasing from 29.44 \( (SD = 24.45) \) to 24.46 \( (SD = 17.61) \). Social networkers overall experienced a non-significant increase in emotional distress \( t(117) = .71, \ p = .479 \) from 24.14 \( (SD = 22.98) \) to 25.39 \( (SD = 22.62) \). The interaction can be seen graphically in Figure 8.1.
For social anxiety, bloggers approached but did not reach a significant decrease in social anxiety between Time 1 and Time 2 ($t(89) = 1.74, p = .085$) with bloggers mean scores decreasing from 17.50 ($SD = 13.10$) to 15.79 ($SD = 10.17$). Social networkers experienced a non-significant increase in social anxiety ($t(117) = 1.188, p = .237$) from 14.53 ($SD = 11.85$) to 15.24 ($SD = 11.72$). A graph of the trend can be seen in Figure 8.2.
There were no significant Time X Gender or Time X Gender X Blog Group interactions. There was, however, one significant Gender X Blog Group interaction for online bonding \(F(1,204) = 4.37, \ p = .038, \eta^2 = .02, \text{ observed power} = .55\]. Male bloggers had a mean score of 32.10 (SE = .851), female bloggers had a mean score of 29.68 (SE = .617), male social network users had a mean score of 27.94 (SE = .68), and female social network users had a mean score of 28.39 (SE = .570).

8.5.2 Changes in Well-being over Time by Content Type

\(H2: \) Changes in well-being will be greater for bloggers posting high levels of personal content, through the use of blogging as a form of therapeutic writing.

Social networkers were removed from further analyses in order to examine changes within bloggers based on their blog content. A series of mixed within-between groups repeated measures ANOVAs were conducted to explore the differences and changes on measures of social and emotional well-being between the different types of bloggers classified based on blog content type (Inert, Topical, Personal, and Personal & Topical) between Times 1 and 2 (Studies 2 and 3). The dependent variables were again online bridging and bonding capital as measured by scores on the ISCS, social provisions as measured by the total score on the SPS, social anxiety as measured by total scores on the SPIN, social and emotional loneliness as measured by scores on the LS, and emotional distress as measured by scores on the DASS-21. The means and standard deviations for the dependent variables for each content type at Times 1 and 2 (Studies 2 and 3) can be seen in Table 8.12.

In addition to the results reported in this section alternative analysis was carried out to explore possible changes in psychosocial well-being over time based on the amount of personal or topical content (high or low) individually, but these results were not included here as they were substantially the same and lacked sufficient power. These results can be seen in Appendix VI (p. 317).
Table 8.12. The Means and Standard Deviations for each Blogger Type at Study 2 (Time 1) and Study 3 (Time 2) for the Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>Inert</th>
<th></th>
<th></th>
<th>Topical</th>
<th></th>
<th></th>
<th>Personal</th>
<th></th>
<th></th>
<th>Personal &amp; Topical</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Bonding Capital (Study 2)</td>
<td>29.64</td>
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<td>27.78</td>
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<td>31.60</td>
<td>5.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonding Capital (Study 3)</td>
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<td>31.09</td>
<td>4.74</td>
<td>28.78</td>
<td>4.36</td>
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<td>Bridging Capital (Study 3)</td>
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<td>41.84</td>
<td>4.38</td>
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<td></td>
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<tr>
<td>Social Provisions (Study 2)</td>
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<td>81.82</td>
<td>10.65</td>
<td>77.28</td>
<td>9.84</td>
<td>80.24</td>
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<td>Social Provisions (Study 3)</td>
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<td>81.50</td>
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<td>76.33</td>
<td>10.73</td>
<td>78.72</td>
<td>12.19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Anxiety (Study 2)</td>
<td>13.00</td>
<td>8.63</td>
<td>14.45</td>
<td>10.64</td>
<td>27.33</td>
<td>12.57</td>
<td>17.60</td>
<td>15.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Anxiety (Study 3)</td>
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<td>11.86</td>
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<td></td>
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<tr>
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<td>6.36</td>
<td>3.32</td>
<td>8.00</td>
<td>3.31</td>
<td>5.96</td>
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<tr>
<td>Emotional Loneliness (Study 2)</td>
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<td>8.61</td>
<td>2.55</td>
<td>8.20</td>
<td>3.16</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Loneliness (Study 3)</td>
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<td>6.45</td>
<td>2.09</td>
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<td>2.77</td>
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<td></td>
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<tr>
<td>Emotional Distress (Study 2)</td>
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<td>22.73</td>
<td>18.06</td>
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<tr>
<td>Emotional Distress (Study 3)</td>
<td>18.24</td>
<td>15.48</td>
<td>21.82</td>
<td>15.19</td>
<td>26.94</td>
<td>12.78</td>
<td>31.20</td>
<td>22.23</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The main effects for Time can be seen in Table 8.13 along with means and standard error at Times 1 and 2.

Table 8.13
*The F Value, Probability, Partial Eta Squared, Observed Power, and Group Means at Time 1 and Time 2 for the Measures of Psychosocial Well-being for Bloggers*

<table>
<thead>
<tr>
<th></th>
<th>Time (df=1, 86)</th>
<th></th>
<th>Time 1</th>
<th>Time 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>p</td>
<td>η²</td>
<td>Power</td>
</tr>
<tr>
<td>Online Bonding</td>
<td>2.52</td>
<td>.116</td>
<td>.03</td>
<td>.35</td>
</tr>
<tr>
<td>Online Bridging</td>
<td>10.91</td>
<td>.001</td>
<td>.11</td>
<td>.90</td>
</tr>
<tr>
<td>Social Provisions</td>
<td>.94</td>
<td>.334</td>
<td>.01</td>
<td>.16</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>4.34</td>
<td>.040</td>
<td>.05</td>
<td>.54</td>
</tr>
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<td>Social Loneliness</td>
<td>4.71</td>
<td>.033</td>
<td>.05</td>
<td>.57</td>
</tr>
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<td>Emotional Loneliness</td>
<td>1.77</td>
<td>.187</td>
<td>.02</td>
<td>.26</td>
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<tr>
<td>Emotional Distress</td>
<td>6.87</td>
<td>.010</td>
<td>.07</td>
<td>.74</td>
</tr>
</tbody>
</table>

The main effects for Content Type can be seen in Table 8.14 along with means and standard errors for inert bloggers, topical bloggers, personal bloggers, and personal and topical bloggers.
Table 8.14
*The F Value, Probability, Partial Eta Squared, Observed Power, and Group Means for Bloggers of Different Blog Content Types*

<table>
<thead>
<tr>
<th>Content Type (df=3,86)</th>
<th>F</th>
<th>p</th>
<th>ηp^2</th>
<th>Power</th>
<th>Inert (n=25) M</th>
<th>SE</th>
<th>Topical (n=22) M</th>
<th>SE</th>
<th>Personal (n=18) M</th>
<th>SE</th>
<th>Personal &amp; Topical (n=25) M</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Bonding</td>
<td>2.31</td>
<td>.082</td>
<td>.07</td>
<td>.56</td>
<td>7.26</td>
<td>.47</td>
<td>6.30</td>
<td>.50</td>
<td>8.28</td>
<td>.55</td>
<td>7.98</td>
<td>.47</td>
</tr>
<tr>
<td>Online Bridging</td>
<td>4.10</td>
<td>.009</td>
<td>.13</td>
<td>.83</td>
<td>38.92</td>
<td>.99</td>
<td>41.45</td>
<td>1.06</td>
<td>36.61</td>
<td>1.17</td>
<td>41.08</td>
<td>.99</td>
</tr>
<tr>
<td>Social Provisions</td>
<td>.77</td>
<td>.512</td>
<td>.03</td>
<td>.21</td>
<td>80.12</td>
<td>2.04</td>
<td>81.66</td>
<td>2.17</td>
<td>76.81</td>
<td>2.40</td>
<td>79.48</td>
<td>2.04</td>
</tr>
<tr>
<td>Social Anxiety</td>
<td>5.11</td>
<td>.003</td>
<td>.15</td>
<td>.91</td>
<td>13.94</td>
<td>2.02</td>
<td>13.16</td>
<td>2.15</td>
<td>24.50</td>
<td>2.38</td>
<td>16.76</td>
<td>2.02</td>
</tr>
<tr>
<td>Social Loneliness</td>
<td>2.57</td>
<td>.059</td>
<td>.08</td>
<td>.62</td>
<td>6.80</td>
<td>.53</td>
<td>6.57</td>
<td>.56</td>
<td>8.50</td>
<td>.62</td>
<td>6.44</td>
<td>.53</td>
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<tr>
<td>Emotional Loneliness</td>
<td>3.01</td>
<td>.035</td>
<td>.09</td>
<td>.69</td>
<td>7.26</td>
<td>.47</td>
<td>6.30</td>
<td>.50</td>
<td>8.28</td>
<td>.55</td>
<td>7.98</td>
<td>.47</td>
</tr>
<tr>
<td>Emotional Distress</td>
<td>4.36</td>
<td>.007</td>
<td>.13</td>
<td>.86</td>
<td>19.08</td>
<td>3.64</td>
<td>22.27</td>
<td>3.88</td>
<td>31.31</td>
<td>4.29</td>
<td>35.80</td>
<td>3.64</td>
</tr>
</tbody>
</table>
Bloggers in general experienced a significant decrease in social anxiety, social loneliness and emotional distress and an increase in online bridging capital over the 250 days (see Table 8.13). An examination of the means for blog content types shows all blog content types with the exception of Inert bloggers decreased in social anxiety over the 250 days (see Table 8.12). Similarly all blog types showed increases in bridging social capital with the exception of Inert bloggers. For social loneliness and emotional distress all blog content types showed decreased means over the 250 days, and Personal and Personal and Topical bloggers showed both the highest initial levels of distress and loneliness as well as the greatest improvements in mean scores.

When comparing bloggers by content type there were a number of significant differences between the groups (see Table 8.14). Personal bloggers at both testing points were lowest in bridging social capital, and post-hoc comparisons using the Tukey HSD test indicated the mean score for Personal bloggers was significantly lower than for Personal and Topical and Topical bloggers. Personal bloggers were highest in social anxiety, and post-hoc comparisons using the Tukey HSD test indicated the mean score for Personal bloggers was higher than for all other content types. Personal bloggers were highest in emotional loneliness, and post-hoc comparisons using the Tukey HSD test indicated the mean score for Personal bloggers was significantly higher than for Topical bloggers. Personal and Topical bloggers had the highest mean emotional distress score, and post-hoc comparisons using the Tukey HSD test indicated the mean score for Personal and Topical bloggers was significantly higher than for Inert bloggers.

None of the interaction effects between blog content type and time were significant, although social anxiety approached significance $[F(3, 86) = 2.51, p = .064, \text{partial \ eta \ squared} = .08, \text{observed power} = .60]$. Personal bloggers showed a significant decrease in social anxiety between Times 1 and 2 [$t(17) = 2.76, p = .013$]. The mean social anxiety scores for each group in this non-significant trend can be seen graphically in Figure 8.3.
There was partial support for the first hypothesis that bloggers would improve over time on levels of social and emotional well-being. While bloggers started off with higher mean social anxiety and emotional distress scores compared to social networkers, over the 250 days bloggers experienced near-significant and significant decreases, respectively, in these scores while SNS users experienced non-significant increases or no change. SNS users' level of emotional distress remained at about the 60th percentile level (95% CI 50, 69) over the 250 days, but bloggers' distress dropped from the 71st percentile (95% CI 62, 79) to the 60th (95% CI 51, 69) (Crawford, Cayley, Wilson, Lovibond, & Hartley, 2011). Thus while bloggers may have started in a more disadvantaged position, they showed a significant growth in well-being not present for SNS users with final means roughly equivalent to or just below those of SNS users.

There were some additional general differences between bloggers and SNS users in terms of psychosocial well-being, with bloggers exhibiting higher overall mean scores for online bridging and bonding social capital compared to SNS users. A number of authors and bloggers have highlighted the potential for blogs to be used to create connections with users of diverse interests allowing bloggers to learn and experience new things as well as supplement their network of acquaintances within

---

Figure 8.3. A diagram of the mean social anxiety scores for each content group at Time 1 and Time 2.

### 8.6 Discussion

There was partial support for the first hypothesis that bloggers would improve over time on levels of social and emotional well-being. While bloggers started off with higher mean social anxiety and emotional distress scores compared to social networkers, over the 250 days bloggers experienced near-significant and significant decreases, respectively, in these scores while SNS users experienced non-significant increases or no change. SNS users' level of emotional distress remained at about the 60th percentile level (95% CI 50, 69) over the 250 days, but bloggers' distress dropped from the 71st percentile (95% CI 62, 79) to the 60th (95% CI 51, 69) (Crawford, Cayley, Wilson, Lovibond, & Hartley, 2011). Thus while bloggers may have started in a more disadvantaged position, they showed a significant growth in well-being not present for SNS users with final means roughly equivalent to or just below those of SNS users.

There were some additional general differences between bloggers and SNS users in terms of psychosocial well-being, with bloggers exhibiting higher overall mean scores for online bridging and bonding social capital compared to SNS users. A number of authors and bloggers have highlighted the potential for blogs to be used to create connections with users of diverse interests allowing bloggers to learn and experience new things as well as supplement their network of acquaintances within
their field (Doctorow, 2002; Nardi et al., 2004). Once the broader and shallower bridging connections are made, bloggers may be able to develop deeper relationships and develop additional bonding capital (Chung & Kim, 2008; Kawaura et al., 1999; Kaye, 2005; Turgeon, 2004). Indeed, Baker and Moore (2008a) found bloggers showed mean increases in social integration suggesting they had connected with other bloggers who had similar interests and beliefs, paving the way for increased bonding capital. Future studies might consider the potential for online relationships to expand from bridging to bonding capital.

Despite higher overall social capital levels for bloggers, both bloggers and SNS users appeared to experience benefits from the use of their respective online forms of media with significant overall increases in bridging capital and decreases in social loneliness over the 250 days. While both mediums can provide a mechanism for expanding perceived social capital, bloggers experienced greater levels of initial capital and of change than SNS users. It is likely that blogs better lend themselves to meeting new users with diverse interests than SNSs, as SNSs tend to facilitate interactions between users who already have existing relationships (boyd & Ellison, 2008), a quality more closely linked to bonding (or exclusive) capital. Thus it is notable that bloggers online bonding capital levels also exceeded those of social network users, despite SNS users being more motivated to connect with others in Study 2.

When considering bloggers, independently of SNS users, in terms of the content they write about (i.e., content type), there was limited support for the second hypothesis that improvements in psychosocial well-being would be greater in certain types of bloggers. Personal bloggers showed a near-significant decrease in social anxiety over the 250 days (p=.064) suggesting writing about personal content in a public forum may have potential benefits. Further research with a larger sample population would be of benefit in regards to this point as the statistical analyses generally lacked sufficient power.

An examination of bloggers as a group showed significant decreases in social anxiety, social loneliness, and emotional distress over the 250 days, as well as a significant increase in online bridging capital. Notably Inert bloggers did not experience decreases in social anxiety or increases in social capital. Bloggers posting high amounts of personal content generally experienced greater gains in
well-being over this time period, but these users started at a state of greater ill-being at the initial survey time. Indeed, *Personal* bloggers were significantly higher than other blogger groups in social anxiety, higher in emotional loneliness than *Topical* bloggers, and lowest in bridging capital overall. *Personal and Topical* bloggers had the highest mean emotional distress levels, followed by *Personal* bloggers. The overall blogger group mean score was in the 71st percentile (95% CI 62, 79) for the DASS at Time 1, with *Personal and Topical* bloggers in the 81st percentile (95% CI 73, 88) for general psychological distress and *Personal* bloggers in the 79th percentile (95% CI 71, 87) (Crawford et al., 2011). At Time 2 the group mean dropped into the 60th (95% CI 51, 69), with the average *Personal and Topical* blogging score falling to the 73rd percentile (95% CI 64, 81) and for *Personal* bloggers to the 64th percentile (95% CI 55, 73). It is notable that the overall levels of emotional distress for the current sample were higher than those of the normal population.

Inert bloggers, as their names suggest, do not appear to engage as heavily in blog production as they post little personal or topical content, and as a result this group may not receive all of the potential benefits of blogging (e.g., increased social capital, decreased social anxiety). Inert and topical bloggers may not be motivated to blog about personal topics, however, as their mean scores suggest overall higher levels of well-being than bloggers who post high amounts of personal content and thus no underlying need for extra social support or connection may be present. Those high in social and emotional distress may be attracted to blogging as a potential means of reducing distress, and may utilize higher levels of personal content to do so. Baker and Moore (2008b) found intending personal journal bloggers were higher on emotional distress than individuals who only planned on using SNSs. While not previously studied, *Personal and Topical* bloggers may be a group of particular interest in future studies as they may attempt to utilize multiple content streams to elicit an audience with whom to vent their emotional distress, while concurrently building higher levels of social capital.

In terms of social loneliness and social anxiety, despite the suggestion in Study 1 by some bloggers that silence in the blogosphere could amplify some users' feelings of loneliness, personal bloggers appeared to be somewhat successful in combating their loneliness and social anxiety over the 250 days. *Personal* bloggers were
particularly high in social anxiety. Mean initial social anxiety scores for Personal bloggers exceeded 19 out of 64 which is considered to be generally indicative of levels sufficient for clinical diagnosis of social anxiety using the SPIN (Connor et al., 2000), while all other content type groups scored below this threshold suggesting social anxiety may be a factor unique to personal bloggers driving their use of the medium. Personal blogging may be related to the concept of social compensation (Davis & Kraus, 1989), whereby bloggers discuss significant, private, and emotionally sensitive content that they would not feel comfortable discussing in FTF life. Blogs may offer an opportunity to identity test and improve social skills in a safe setting, and thus social anxiety may influence some personal bloggers towards their use of the medium. Anxiety provoking situations may be easier to address online, and with successes in discussing these matters users may gain increased confidence and decreased social anxiety, resulting in decreased social loneliness and opportunities for increased social capital. Indeed, at Time 2 the Personal group’s score approached sub-clinical levels suggesting the blog may be effective at reducing social anxiety, although it is unclear whether these changes were due to real life improvements or decreased anxiety through online interaction. Users' comments in Study 1 detailed this form of usage and benefit from blogging. Examining the relationship between these variables for users high in personal content in future studies may be of interest.

8.6.1 Limitations

The current study suffered from several limitations, the majority of which were due to the small sample size. While the sample size for the combined blogger and SNS groups enabled sufficient power for the statistical analyses conducted ($n > 200$), the examination of blog content types using a sample of $n = 90$ would have benefited from a larger group of users. This was evident as a number of significant effects had observed powers below the preferred threshold of .80 suggesting the need for further analysis with a larger population. The small sample size also prohibited examination of changes in the psychometric devices in the sub-scale level (e.g., general psychological distress was utilized instead of depression, anxiety and stress separately). This limitation could be overcome in future research via an increased
initial sample size of at least 500 bloggers with the expectation of getting a follow-up sample size of 200 or more. Also the large number of ANOVAs run in this study may have led to an increased risk of Type I error.

8.6.2 Future Research

Future research might take a more specific approach to examining psychosocial changes. In future research it may be worthwhile to examine the specific breakdown of issues discussed in the personal group to ascertain specifically what drives the blogging of this group and their response to blogging in specific measures. Further examination into the general psychological distress of Personal and Topical bloggers is of particular interest as this is a previously unexamined group of blog users who appear to have unique characteristics when compared to either Personal or Topical bloggers as a group. Likewise further research could be conducted into the 'Inert' blogger, who may closely resemble the 'lurker' blogger described by IP and Wagner (2008). Examining the long term role of non-active participation in the blogosphere on social measures of well-being is of interest, in particular due to the mild rising scores in social anxiety displayed in the current study.

Alternatively an approach utilizing more specificity may be preferred when evaluating the positive or negative nature of personal content in future studies. For example, one could evaluate how levels of psychological distress may vary between users who focus on documenting the joys of a blossoming romance compared to another writer discussing the torments of divorce. As such a further breakdown delineating between the type and level of emotional expression may aid in determining who is best served by blogging as a therapeutic tool.
9 General Discussion

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9.1 **Findings & Implications**

The present thesis examined why people blog from qualitative and quantitative perspectives, what motivations were strongest for bloggers relative to social network users, and the psychosocial changes bloggers experienced after 250 days of blogging. There were four major research questions and one aim addressed in present thesis:

**RQ1:** How do people communicate and make social connections through blogging? Do bloggers perceive emotional and social changes in well-being as a result of their activities?

**RQ2:** Which motivations are strongest for bloggers? Do blogger motivations differ according to the age, gender and psychosocial characteristics of bloggers?

**RQ3:** How do the motivations of bloggers compare to those of social networkers?

**RQ4:** How does blogging affect the psychosocial well-being of existing bloggers? How does the content a blog author writes about influence the psychosocial outcomes of the author?

**Aim:** To create a valid and reliable measure of blogging motivation.

First, this thesis explored some of the mechanisms for computer-mediated social interaction, and the perceived mechanisms whereby interactions via the internet, specifically through blogging, might lead to psychosocial change. In Study 1, analysis of blogger comments about why they blogged revealed a number of overarching themes relating to psychosocial changes. One pervasive theme concerned the role of commenting in blogging. Commenting, and in particular positive and supportive commenting, may play a key role in emotional and social well-being. Commenting can influence an author's sense of self, "*when someone leaves a comment on your blog, it can mean such a lot especially if it is a positive one*", and in particular positive feedback can increase a blogger's self-esteem, self-efficacy and sociability (Ando & Sakamoto, 2008; Leung, 2009; Tidwell & Walther, 2002). As in previous research (e.g., Trevino, 2005), comments were generally described as positive by participants in Study 1, although some users described
experiences of receiving negative or hostile comments. Commenting appears to play a key role in forging and perpetuating relationships between individual bloggers, and in turn influenced the development of blogging communities (Gumbrecht, 2004).

Blogs, like other internet applications, have the ability to foster individual and community connections across countries and continents (Quan-Haase & Wellman, 2004), transcending the traditional proximity restrictions existing in FTF life. In Study 1 bloggers' comments described the ease with which they could find people with similar interests to connect with within this large pool of internet users (e.g., “And most people have at least one uncommon interest, point of view, or activity. You know, studying bugs, or a rare religious point of view, etc. And it can feel like you're the only one in the world who does/thinks that until you get online, and realize there's others out there.”), and likewise how they could connect with others who have dissimilar or unfamiliar interests (e.g., “Where else could a Malaysian student and a Pennsylvania horse race lover come together and talk about everything from rats to love?”). This ability to create both inclusive bridging capital, and exclusive bonding capital, appears more characteristic of blogging than other internet applications. SNSs, for example, lend themselves to some degree of bonding capital as by their nature they articulate existing personal social networks (boyd & Ellison, 2008), but blogs may have the potential to enable deeper connections by enabling blog users to connect with a seemingly unlimited number of similar and dissimilar users. A number of authors have highlighted the blog's ability to connect users with individuals who share interests and actively offer support (Chung & Kim, 2008; Kawaura et al., 1999; Kaye, 2005; Turgeon, 2004). It is likely as a result of this capacity that bloggers in Study 3 scored higher than social networkers in both bridging and bonding social capital.

Blogging commentary and community formation appeared to play a particularly strong role in regulating psychosocial well-being in terms of social anxiety and loneliness. A number of bloggers in Study 1 described experiencing some features or symptoms of social anxiety when starting their blogs, and indeed in Study 3 personal journal bloggers were high on social anxiety, loneliness, and emotional distress. By joining a community where they felt understood and perceived support (in part due to the overwhelmingly positive nature of comments on their blog), some
bloggers appeared to use their blogs to create opportunities for personal growth. Because the internet can disinhibit users (Suler, 2004) and enable them to express themselves in a safer feeling environment (Walther, 1996), some bloggers described how they were able to trial expressing their true selves in an online environment before transitioning to a FTF environment. For example, one blogger wrote, "I've always loved writing because, having grown up as an incredibly shy person, [blogging] gave me more of a voice than I expressed verbally. But because blogging is interactive, it's made me more aware of the fact that I'm directly communicating with people through my writing. Which has, in turn, given me a lot more confidence and ability at bringing more of my written voice into my verbal conversation. In other words, it's helped me to express myself better, not just as a writer, but as a person."

This sort of positive blogging environment, whereby community support and commentary help increase self-esteem and self-efficacy, was also described by Trevino (2005). Study 3 provided some quantitative support for the ability of a blog to facilitate decreases in social anxiety and loneliness, with bloggers as a group exhibiting lower levels of social anxiety and social loneliness at Time 2, as well as lower levels of emotional distress. In a cues-filtered-out environment such as the internet (i.e., where users lack many of the unintended cues available in face-to-face communication in terms of Saling and Phillips' (2010) model), how a reader perceives the nature (e.g., positive, validating), source (e.g., valid, reliable, high status), and scope (e.g., broad reaching) of the comments they receive may amplify the positive or negative impact of the messages, and consequently the size and type of changes in well-being for the blogger (Walther, 1996).

The present thesis also examined the motivations for blogging, first from a qualitative perspective in Study 1 and then from a quantitative perspective in Study 2. The aim of creating a valid and theoretically driven blog motivation scale was successfully achieved in Study 2, with the final scale composed of items originating from the qualitative feedback in Study 1 and from an extensive search of the literature on blogging motivations described in Chapter 3. The largest motivations for bloggers were sharing self, exchanging affect, documenting experiences, and connecting with others. These motivations highlight the social nature of the blog, despite its roots as a private tool of self-reflection. A comparison of the motivations of bloggers and social network users showed that bloggers were significantly higher.
than social network users on *exchanging information, sharing self, exchanging affect, professional advancement, and documenting experiences*, while social network users were higher on *connecting with others* than bloggers. Despite social networkers being driven to connect with others, this motivation may reflect a more superficial use of this medium based on the lower levels of information exchange, affective exchange, and personal disclosure. More meaningful and genuine online relationships may in part explain why bloggers showed higher levels of online social capital in Study 3. Bloggers appeared to generally be more highly motivated to connect with other users, and to expand their circle of contacts, rather than communicate only with members of their already existing social network.

Alternatively, bloggers may be more motivated to personally and professionally exchange with others due to a more psychosocially disadvantaged initial state of well-being. That is, bloggers may attempt to compensate for ill-being through the use of this online medium. Bloggers were highly differentiated from social network users in scores on the motive of *affective exchange* in terms of effect size. It may be that bloggers are drawn to the application as a means of reducing their negative affect through venting and autotherapeutic expression. In Study 3 there was a significant decrease for bloggers in emotional distress over the 250 day measurement period, while there was no change in emotional distress for social network users. Bloggers ultimately had equivalent or slightly lower levels of emotional distress when compared to social network users suggesting their attempts to reduce affective distress were somewhat successful. Whether this change is due to connection with others, which while a strong motivation for bloggers was relatively weaker than for social network users, or the actual process of blogging is unknown. Pennebaker and Chung (in press) described a number of means through which emotive writing may elicit positive emotional changes in an author, and the process of disclosing personal life and emotional experiences may on its own be sufficient to bring about some degree of change.

Some blog authors do not activate the blog comment feature, choosing to deliver monologues, and indeed this unidirectional style of blogging suggests that blogs can serve key functions beyond social exchange and feedback. Some bloggers may not request feedback from readers simply because their primary purpose for blogging is to vent and express emotions (Fullwood et al., 2009; Gumbrecht, 2004; Nardi et al.,
2004). This monologue style of blogging raises interesting questions as to why bloggers choose a public space to serve this purpose with a silent, essentially gagged, audience. This type of usage does not appear to be common for the majority of bloggers, and in Study 1, connecting and interacting with others was frequently described as a key motivation and as contributing to psychosocial gains in well-being. Indeed, in Study 3 bloggers did in fact display higher levels of bridging and bonding social capital than social network users. Future research might attempt to differentiate between the individual and social effects of blogging on well-being.

In general blogging activity appears to positively influence the psychosocial well-being of bloggers. Overwhelmingly bloggers' mean scores on indicators of well-being increased over the sampling period, although some individual bloggers experienced increases in ill-being which may have been related in part to personal life events or, according to some of the comments in Study 1, hostile feedback. In particular bloggers made significant reductions in social anxiety and emotional distress compared to social network users. However, as stated earlier, bloggers tended to display higher initial levels of social anxiety and emotional distress when compared to social network users, with bloggers ultimately showing reductions to similar levels. Because the study was limited in time to a 250 day period, it may be that bloggers' improvements in well-being might have continued, or there may be a floor at which blogging ceases to provide further improvements.

When examining bloggers' well-being in terms of content, bloggers posting high amounts of personal content were generally the most socially and emotionally distressed. Personal bloggers showed a significant reduction in social anxiety over the sampling period suggesting their personal disclosure may have helped to create some sense of social self-esteem through the mechanisms discussed above and in Study 1. On the other side of the blogging spectrum, inert bloggers appeared to have a more similar profile to social network users, displaying higher overall levels of well-being but not showing improvements over the course of the study. Inert bloggers may not have needed to use their blog as a tool for coping as they were going through a period of low distress, or they may resemble the 'lurker' bloggers described by IP and Wagner (2008) who use their blogs as a passive means of
surveilling their friends through reading their blog posts. Future research on this type of unengaged blogger may be of interest.

In terms of evaluating the utility of the blog as a therapeutic tool, these studies offer some support for the blog helping to influence positive gains in well-being in users. Study 1, however, pointed out some limitations of this technology whereby the ease of use and social comfort may create problems in FTF life through avoidance of real life stressors, creating strains in real life interpersonal relationships where FTF activities are displaced by blogging activities. Some users may choose to blog and avoid FTF interactions due to the comfort of considered responses in combination with visual and auditory anonymity (Gumbrecht, 2004; Suler, 2004), as opposed to FTF communication which requires both immediacy and personal accountability. Likewise underuse, as represented by the inert blogger in Study 3, may provide a blogger with only minimal psychosocial benefits. Thus, as with many things in life, a happy medium between over usage and under usage may need to be negotiated for users intentionally attempting to utilize their blog to reduce ill-being.

It should be noted, however, that caution should still be exercised in the process of blogging as comments made in the present have the potential to exist on the internet indefinitely and may have delayed consequences where content is inappropriate or suggestive of personal difficulties (e.g., a potential employer may decline to offer a blogger a position after discovering on their blog that the employee has left their last two jobs on bullying claims, or alternatively because they are homophobic and the blogger is gay).

Appreciably in this thesis, a number of potential influencing factors were identified which may affect well-being. These factors fit well within the model of Internet Enhanced Self-disclosure presented by Valkenburg and Peter (2009), wherein online communication promotes self-disclosure, quality relationship formation, and ultimately well-being. While Valkenburg and Peter only included gender, social anxiety, and type of technology / use as potential influencing factors, in the present thesis an expanded model which included the additional influencing factors of psychosocial well-being, personal characteristics, social demographics, and social consequences was presented (see Figure 4.3, p. 76). There was support for the inclusion of these additional factors, namely, blog content type within the use of technology factor; social capital, loneliness, and emotional distress within the
psychosocial well-being factor; motivation in the personal characteristics factor; and positive feedback and social commentary within the social consequences factor. As within the original model, support for the role of social anxiety was found. Gender, however, did not appear to play a significant role in influencing changes in well-being in the present research. In light of the potential role these additional factors might play in moderating well-being in online communication and relationship formation, further testing of this adapted model might be of benefit.

9.2 Limitations

There were a number of limitations to the studies undertaken as part of this thesis. First, the generalizability of these studies is limited by the exclusion of non-English speakers in both the qualitative and quantitative studies. These studies are most applicable to Western (Australian and American) samples and may not represent the experiences of individuals from other cultures. Bloggers, for example, from Asian countries may differ to some extent in their motivations and uses of this medium (Huang et al., 2008). Generalizability was also limited as the two quantitative samples were composed of self-selected convenience samples. This limitation was less present in the qualitative sample in Study 1, but the fact that this group of bloggers was commenting on scientific research is suggestive of a more specific subsection of the greater blogosphere. Future studies might consider using random or systematic sampling.

In addition to the normal limitations of qualitative research (flexible coding, reliability of the coding framework, etc.), in Study 1 no demographic information about participants was obtained due to the use of extant data from within the blogosphere. Demographic features may have been of use in evaluating the data. For example, females may put more effort into appearing friendly in their writing (Miller & Arnold, 2000), and this agreeableness in a qualitative study could positively bias the data. However, minimal gender differences were found in the subsequent Studies 2 and 3. Also, in Study 1 the researcher chose not to interact with participants to elicit data. While the rationale behind this was to avoid influencing the written responses (i.e., data) with the author's own bias, an opportunity was lost to examine
the sentiments of bloggers in more detail and to clarify comments which were ambiguous.

Along this same line of thought, it was impossible in Study 1 to determine participants' comprehension of the original research findings. While there was a high level of consistency regarding discussion around the social and emotional consequences of blogging, individual understanding of findings appeared to vary widely between participants in the study. While some participants accepted the perceived findings unquestioningly, a small percentage of bloggers expressed interest in the methodology and utility of the study suggesting a higher level of critical analysis. Those people with higher levels of education may have been better able to evaluate research outcomes than those with lower levels. Still, while some users may have misunderstood key terms, concepts, or findings, in the most basic terms, there seemed a general consensus that the research outcomes had face validity based on the participants' personal experiences.

Study 2 also suffered from a number of limitations in addition to those normally associated with cross-sectional survey designs. There was a gender imbalance in the sample population for Studies 2 and 3 with a greater percentage of females participating, and most of the sample population was composed of young to middle aged adults ranging from 18 to 40 years old. These characteristics should be taken into account when trying to generalize results. The main measure created in Study 2, the Blogging Motivation Scale, would have benefited from a Likert type scale that spanned a larger range, for example a 9 point Likert-type scale, instead of replicating the 3 point scale used in the McCullagh (2008) study. This would have helped better discriminate between the strengths of different motivations and also would have been of use for running more complex statistical analyses such as path modeling. This sort of measurement weakness is more likely to bias against significant results, and may have reduced the strength of some findings. Also while the Blogging Motivation Scale had strengths in its theoretical basis and its large number of items, some constructs were underrepresented such as motivations relating to generativity, pleasure, and entertainment, which could be rectified in future studies with additional items sampling these areas.

Study 3 had the largest number of limitations, and thus the conclusions from this study should be interpreted with the most caution. First, the sample sizes in Study 3
were too small for some of the planned analyses and a number of analyses lacked sufficient power for confident inferences to be drawn. The decreased sample size appears to be partially resultant from the large number of returned emails when re-contacting participants from Study 2. Miura and Yamashita (2007) pointed out that the ongoing use of internet applications is increasingly transient, and that users can delete or create new emails, social network pages, and blogs with a few button clicks. This issue of re-contacting participants could be improved in future studies by securing multiple modes of contact (e.g., blog address, email, SNS site, mailing address) or alternatively issues with the sample size could be addressed by recruiting a larger initial sample. Based on response rates in the present study, a Study 2 sample of 1000 would have resulted in approximately 200 bloggers and 250 social network users at follow-up, a much more suitable sample size for repeated statistical analyses. Also, although the effective response rate was high for this sort of research (46%), there may be some inherent self-selection bias present in the current sample.

The smaller sample sizes in Study 3 had follow-on effects in terms of analysis. Because of the lower number of participants and high total number of scales and subscales across the survey, a decision was made to reduce the number of measures used in analysis by using total scale scores for some measures (i.e. the total DASS-21 score was utilized instead of treating depression, anxiety, and stress separately; the full scale score of the SPS was utilized instead of the six subscales). The ability to utilize subscales would have been of benefit in highlighting the specific nature of changes in participants over the 250 days, but a decision was made to attempt to minimize Type I error in the present thesis.

Finally, to create the content groups in Study 3, median splits were performed for topical and personal content measures. This dichotomizing of groups represents a large limitation as normative data pertaining to the levels of topical and personal content normally present in blogs was not available due to the exploratory nature of this study. Future studies may wish to expand upon this measure and using a larger and more representative sample population establish a baseline for the types and frequency of content posted within varying types of blogs.
9.3 Future Research

There are a number of potential areas for future research into blogging motivations, behaviors, and consequences. Study 1 highlighted the perceived role of reader comments in blogger well-being. Miura and Yamashita (2007) proposed that positive feedback may perpetuate blogging behavior through perceived social acceptance and as a result, pleasure. Similarly Wang and Lin (2009) suggested that observing bloggers enjoying themselves may motivate an individual to start a blog, again with anticipated enjoyment stemming from positive social feedback. The factors which help bloggers establish positive relationships and the means through which they avoid or moderate negative commentary are of particular interest, as some of the commentary in Study 1 suggested the high rate of discontinued blogs may largely be an artifact of the type and volume of commentary received by an author. Where an author receives large volumes of commentary they continue to blog, while where they receive low volumes or negative commentary they discontinue the practice. Thus the process of establishing the relationships through which this feedback is elicited may be of interest in future studies.

One possible area of research would be to explore the utility of the adapted version of Harter's (1999) model of enhanced well-being through blogging commentary which was presented in Chapter 4 (see Figure 4.4, p. 81). In the original model Harter proposed that positive feedback can lead to increased social self-esteem and overall enhanced well-being. In support of this in Study 1 a substantial number of comments suggested that positive cross-commentary within blogging communities could lead to improvements in well-being, while negative comments or the absence of comments could contribute to ill-being. The adapted model provides a number of different potential qualities of blog commentary which could serve as a basis for considering different ways of evaluating the relative desire for, and impact of, such comments.

In the present research bloggers displayed higher levels of social capital than social network users, despite social network users' strong motivation to connect with others using the media. Bloggers were also more motivated to exchange affect on their blogs, which is of interest as SNSs provide a collection of real life relationships with whom a user can share, but SNS users prefer not to use this media in that way. Also on SNSs users rarely interact with strangers (boyd & Ellison, 2008), whereas
blog audiences can be composed of peers, strangers, or a mix of the two (Qian & Scott, 2007). It would be of interest to examine whether the actual technological characteristics of the blog (capacity to write extended dialogues) or the nature of the audience (more strangers, less inhibition) contribute more to this difference of usage, and in turn whether the motivation or medium contributes more to psychosocial changes for users.

Future research might specifically examine the utility of the blog as a therapeutic tool. While in the present thesis extreme usage of the blog, either under (i.e., inert bloggers in Study 3) or over usage (i.e., 'negative consequences of blogging' in Study 1), appeared to be counterproductive to well-being, appropriate guidelines for usage have yet to be established. For example the types of content blogged about, length and frequency of posts, and amount of time spent commenting all may influence the effectiveness of this medium. Other individual factors such as personality, while usually only explaining a small percentage of variance, might be considered in such studies. In particular combined research into the mechanisms through which blogs can lead to growth in well-being could be examined.

Differentiating between effects of blogging due to the mechanisms of emotive writing, and those due to social support and feedback, would be of use in determining whether the blog provides benefits above and beyond those obtainable through pen and paper diaries. In addition to social support, one benefit of blogging might be through observational learning or vicarious learning (e.g., the comment "I have access to other people's experiences and expertise" in Study 1). Bloggers may be able to utilize the experience of other bloggers as a therapeutic tool, rehearsing for potential negative interactions or life events prior to these events occurring. Further some bloggers may seek and gain advice from users and benefit from having this resource available. Whether their use is indicated in settings more alike to support groups (e.g., Chung & Kim, 2008) where both these components may be more effective, or such benefits are available more widely through interaction with friends or the general public, is also yet to be determined.

Future research could expand the research conducted in the present thesis on motivation. The Blogging Motivation Scale can be extended to better encompass aspects such as generativity and entertainment. Motivations might be used to predict psychosocial outcomes, or alternatively be predicted by psychosocial variables. The
relationship between personality and motivation could be of interest in terms of both the use and effects of blogging. Finally further research on how bloggers, social network users, and users of other online media differ in their motivations may be of interest both to web developers in terms of planning user interfaces, as well as in terms of psychosocial outcomes through the needs and gratifications met by each of the mediums. For example, this research could be expanded to consider the differing needs met by other online media such as chat programs, newsgroups, and microblogs, and how the application enables these needs to be met.

Finally, further examination of the different types of bloggers, particularly inert and personal and topical bloggers as unexplored groups, may be of interest in future research. The 250 day sampling period utilized in Study 3 could be extended in future studies to examine whether different types of bloggers continue to experience improvements in well-being, and to provide an opportunity for more users to discontinue blogging opening up this area of research to inquiry.

9.4 Concluding Remarks

The studies in the present thesis have provided a sound basis for inferences regarding the motivations for, and effects of, the use of blogs and social networks sites as internet applications. The usage of multiple types of design, including both descriptive (naturalistic qualitative) and correlational (cross-sectional and longitudinal mixed within-between repeated measures) designs, helped ensure the convergent validity of findings. This convergent validity applied to both findings from the present research studies, as well as in validating previous research conducted during the course of my masters degree using the full cycle feedback obtained in Study 1.

There were a number of original contributions to blogging research in the present thesis. With increasing media coverage regarding research and academic publications, there are increasing opportunities to utilize public opinions regarding findings to provide convergent validity for the outcomes as was done in Study 1. Alternatively researchers can intentionally design studies to have a follow-up qualitative component using information communication technologies with which they check the results of their findings with the research participants to establish
further validity. By examining the responses of bloggers relating to the research outcomes, and in particular double-coded items, the foundations of more formal models of the feedback/reward system at work in blogging have been described for use in future studies.

The blogging motivation scale created in this thesis represents the most comprehensive theory-driven motivation measure to date. During the construction of this thesis two further measures of content type and blogging style (see Appendix III: Publications Resulting from the Thesis) were also created and validated for use in future research. This thesis presented the first comparison in the literature of bloggers and social network users based on motivation. The examination of changes in bloggers over time was also unique to the current study, as was the consideration of two types of mixed bloggers, Inert bloggers and Personal and Topical bloggers. As a result future studies could take a number of different pathways based on the findings of the present thesis, the methodologies utilized, and the measures created within it.

While blogging may be a relatively temporary phenomenon, and may ultimately be replaced by another medium, the adaptations to Valkenburg and Peter (2009) and Harter's (1999) models of enhanced well-being presented in this thesis are likely to be transferable across different communication mediums, both online and offline. Further, the use of the adapted Katz et al. (1973) U&G Framework presented in Chapter 3 and utilized in Study 2 could be applied to the study of motivation for any future information technology. While internet applications inevitably adapt to user demands with improvements in technology capabilities, software applications historically have tended to be 'backwards compatible' to some degree, introducing new 'emergent' technologies while still encompassing the best 'reproduced' aspects.
10 References


11 Appendix I: Ethical Clearance

11.1 Original Clearance (2008-2013)

SUHREC Project 2008/012 Ethics Clearance

Subject: SUHREC Project 2008/012 Ethics Clearance
From: "Keith Wilkins"<KWilkins@groupwise.swin.edu.au>
Date: Thu, 04 Sep 2008 18:43 +1000
To: "Susan Moore"<SMoore@groupwise.swin.edu.au>, <jrg_baker@swin.edu.au>
To: Prof Susan Moore/Kr James Baker, FL85

Dear Sue and James

SUHREC Project 2009/012 Self help through blogging: Psychosocial and Motivational Aspects
Prof S Moore FL85 & James Baker
Approved Duration: 04/09/2008 To 30/06/2012

I refer to the ethical review of the above project protocol undertaken on behalf of
Swinburne’s Human Research Ethics Committee (SUHREC) by a SUHREC Subcommittee (SHEC).
Your responses to the review - as emailed on 21 August 2008 with a detailed attachment -
were put a Subcommittee delegate and feedback sent to you. Further clarification/revision
emailed today appears to be in line with the conditions for approval.

I am pleased to advise that the project (as submitted to date) has approval to proceed in
line with standard on-going ethics clearance conditions here outlined.

- All human research activity undertaken under Swinburne auspices must conform to
Swinburne and external regulatory standards, including the National Statement on Ethical
Conduct in Human Research and with respect to secure data use, retention and disposal.

- The named Swinburne Chief Investigator/Supervisor remains responsible for any personnel
appointed to or associated with the project being made aware of ethics clearance
conditions, including research and consent procedures or instruments approved. Any change
in chief investigator/supervisor requires timely notification and SUHREC endorsement.

- The above project has been approved as submitted for ethical review by or on behalf of
SUHREC. Amendments to approved procedures or instruments ordinarily require prior ethical
approval/clearance. SUHREC must be notified immediately as soon as possible
thereafter of (a) any serious or unexpected adverse effects on participants and any
required measures, (b) proposed changes in protocols, and (c) unforeseen events which might
affect continued ethical acceptability of the project.

- As a minimum, an annual report on the progress of the project is required as well as at
the conclusion (or abandonment) of the project.

- A duly authorised external or internal audit of the project may be undertaken at any
time.

Please contact me if you have any queries about on-going ethics clearance. The SUHREC
project number should be quoted in communication.

Best wishes for the project.

Yours sincerely

Keith Wilkins
Secretary, SHEC

----------------------------------------------
Keith Wilkins
Research Ethics Officer
Swinburne Research (869)
Swinburne University of Technology
P O Box 218
HAWTHORN VIC 3122
Tel +61 3 9214 5218
Fax +61 3 9214 5267

8:30/2009 4:32 PM
11.2 Renewal (2009-2010)

Human Research Ethics Committee

Annual/Final Report for an Approved Protocol

Application for Extension of Ethics Clearance

1. Project Details – Summary
   Provide the most current approved details of your protocol

<table>
<thead>
<tr>
<th>HREC Project No.</th>
<th>2009/819</th>
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<tbody>
<tr>
<td>Principal Investigator/Supervisor:</td>
<td>Professor Susan Moore</td>
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<td>Other Investigators:</td>
<td>James Baker</td>
</tr>
<tr>
<td>Duration of Project:</td>
<td>2 years</td>
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</table>

2. Project Status
   Mark with an X the boxes which best describe the status of the human research elements of the project

   - Project yet to commence
   - Project delayed part-way
   - Project completed
   - Project abandoned before start
   - Project abandoned after start
   - Project continuing
   - Extension of duration to ethics clearance required

   Explain further any options that are marked ** and provide start and end date as applicable

   Start Date: 4 September 2009
   End Date: 4 September 2010

3. Compliance with Conditions of Ethics Clearance
   If the project was subject to any special conditions for continuing ethics clearance, including submission of approval letters from other institutions, explain how these have been met

4. Modifications to Approved Project Protocols
   If there were any procedures and instruments modified during the course of the project, including recruitment and informed consent procedures and instruments explain how/why modifications were undertaken, attaching any new/revised research/consent instruments

   Only the approved procedures and instruments were utilised.

   Contact resethics@swin.edu.au for advice on how best to forward a separate case to HREC if new modifications are proposed.
5. Unanticipated issues of Incidents
Detail any experiences, incidents or issues (adverse or otherwise), especially with respect to research participants, which were unintended or unanticipated and explain how these were dealt with.

[ ] No incidents have been brought to our attention

6. Participant Involvement
Give the numbers of individual participants involved in the project to date

<table>
<thead>
<tr>
<th>Males</th>
<th>Females</th>
<th>Total Participants</th>
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<tr>
<td>237</td>
<td>365</td>
<td>602</td>
</tr>
</tbody>
</table>

Indicates whether participant numbers to date are consistent with the approved protocol
[ ] Yes [ ] No
If participant numbers have varied, give reasons:
Participants self-selected so minor gender difference in participation

7. Security of Data (Continuing or Completed Projects)
Explain how research data and informed consent records are being securely retained and for how long. Also indicate expected method of secure data record disposal (if must comply with Swinburne and Legislative requirements)

All data gathering is electronic with participant data recorded in a password secured database file. At the completion or data gathering an data will be commoaceda to a disk or U/W and maintained in a de-identified form for a period of five years in a locked office.

8. Other Outcomes or Issues (Continuing or Completed Projects)
Outline any other issues or outcomes of relevance to the Ethics Committee, especially ethical issues that have arisen during the course of the project

[ ] Nil

9. Research Outcomes and Benefits (Completed Projects only)
Outline any benefits and outcomes for the project (anticipated/not anticipated, including student course submissions, research publications to date or to be published, etc.)

Research findings from first stage of data collection will be presented at the end of September in the APS Conference in Darwin

10. Declaration of Compliance
We, the undersigned, certify continuing responsibility for the conduct of this research in accordance with the principles contained in the National Statement and any other conditions specified by the Human Research Ethics Committee of the University.

Name of Principal Researcher/Supervisor: Professor Susan Moore
Signature ___________________________ Date ___________________________

Student Investigator (Required for HDR Projects): James Baker
Signature ___________________________ Date ___________________________

Please return the completed and signed form to: Swinburne Research, Research Ethics Officer (Mail H83)
11.3 Project Completion Report (2011)

Human Research Ethics Committee

Annual/Final Report for an Approved Protocol

Application for Extension of Ethics Clearance

1. Project Details – Summary
   Provide the most current approved details of your protocol

<table>
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<th>HREC Project No.</th>
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<td>Professor Susan Moore</td>
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<td>Other Investigators</td>
<td>James Baker</td>
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<tr>
<td>Duration of Project</td>
<td>5 years</td>
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</tbody>
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2. Project Status
   Mark with an X the box(es) which best describe the status of the human research elements of the project

   - Project yet to commence
   - Project delayed part-way**
   - Project completed
   - Project abandoned before start**
   - Project abandoned after start**
   - Project continuing
   - Extension of duration to ethics clearance required**

   Explain further any options that are marked ** and provide start and new end date as applicable

   N/A

3. Compliance with Conditions of Ethics Clearance
   If the project was subject to any special conditions for continuing ethics clearance, including submission of approval letters from other institutions, explain how these have been met

   The conditions of the clearance were complied with.

4. Modifications to Approved Project Protocols
   If there were any procedures and instruments modified during the course of the project, including recruitment and informed consent procedures and instruments explain how any modifications were undertaken, attaching any new/revised research/consent instruments

   Only the approved procedures and instruments were utilised.

   Contact resehics@swin.edu.au for advice on how best to forward a separate set of IREC if new modifications are proposed
5. **Unanticipated Issues of Incidents**
   Detail any experiences, incidents or issues (adverse or otherwise), especially with respect to research participants, which were unintended or unanticipated and explain how these were dealt with.

   No incidents have been brought to our attention.

6. **Participant Involvement**
   Give the numbers of individual participants involved in the project to date

<table>
<thead>
<tr>
<th>Males</th>
<th>Females</th>
<th>Total participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>237</td>
<td>366</td>
<td>003</td>
</tr>
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</table>

   Indicate whether participant numbers to date are consistent with the approved protocol.

   X Yes  No

   If participant numbers have varied, give reasons.

   Participants self-selected so minor gender difference in participation.

7. **Security of Data (Continuing or Completed Projects)**
   Explain how research data and informed consent records are being securely retained and for how long. Also indicate expected method of secure data/records disposal (i.e., must comply with Swinburne and Legislative requirements).

   All data gathering is electronic, with participant data recorded in a password secured database file. At the completion of data gathering all data will be downloaded to a disk or CD and maintained in a de-identified form for a period of five years in a locked office.

8. **Other Outcomes or Issues (Continuing or Completed Projects)**
   Outline any other issues or outcomes of relevance to the Ethics Committee, especially ethical issues that have arisen during the course of the project.

   N.I.

9. **Research Outcomes and Benefits (Completed Projects only)**
   Outline any benefits and outcomes for the project (anticipated/not anticipated, including student course submissions, research publications to date or to be published, etc.).

   Research findings were presented in the 2008 APS Conference in Darwin, in 2010 at the International Conference for Applied Psychology, and in two peer-reviewed publications in Cyberpsychology, Behaviour, and Social Networking.

10. **Declaration of Compliance**
    I/We, the undersigned, certify continuing responsibility for the conduct of this research in accordance with the principles contained in the National Statement and any other conditions specified by the Human Research Ethics Committee of the University.

    Name of Principal Investigator/Supervisor: Professor Susan Moore
    Signature__________________________ Date________________________

    Student Investigator (Required for HDR Projects): James Baker
    Signature__________________________ Date________________________

    Please return the completed and signed form to: Swinburne Research, Research Ethics Officer (Mail H63)
# 12 Appendix II: Research Surveys

## 12.1 Study 2 Survey

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## 12.2 Study 3 Survey

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12.1 Study 2 Survey

12.1.1 Explanatory Statement & Consent

[Inset Swinburne Logo]

Self help through blogging: Psychosocial and Motivational Aspects

FORM OF DISCLOSURE AND CONSENT – Survey 1

The purpose of this research is to examine whether keeping a blog has effects on your psychological well-being, and if any effect relates to the type of blog you keep. Many blogs are similar to personal diaries, and there is a substantial amount of research on how diary writing relates to the authors emotional state. It is unclear if similar effects might occur from writing about daily life in blogs, but if this is the case there may be potential implications for many internet users. Also research is needed on the positive and negative social aspects of blogging.

The following survey asks questions about how much you use the internet, your social life, how you’ve been feeling lately, how you describe yourself and about your reasons for starting your blog. This survey should take around 20-30 minutes to fill out. In six months a link to a second survey will be sent to you, and again another survey six months later after that. This is because we want to examine if there are any changes in your emotional state, as well as if there have been any changes to your social life after blogging for a while. In order to re-contact you, we ask that you provide an email address. Your email address will be kept confidential. After completing the study we will delete the email address from our data set making the information you provide de-identified.

Being in this study is completely voluntary and you may withdraw at any stage. There are no known risks to participating in this study. Sometimes reflecting on personal matters can be upsetting for some people. If participation in the present study brings up feelings of sadness or anxiety, information about depression and anxiety are available at Beyond Blue (www.beyondblue.org.au). If you are feeling upset after participating in this research for any reason, please contact a counsellor or your local physician for consultation.

You must be 18 years or older to complete the survey. In appreciation for your participation, you will be entered into a lottery for Apple iTunes vouchers when you have completed this survey (and entered into additional lotteries after each follow-up survey you complete). Randomly selected winners will be emailed a voucher code to iTunes.

Your responses to the survey will be confidential. The results of this study will be published in my PhD thesis, and may also be published in an academic journal, presented at a conference, or released to the press. However only grouped results will be published and no individual’s responses will be identifiable. Storage of the data collected will adhere to the University regulations and be securely kept on University premises for 5 years before destruction.

If you would like further information on this project, or are interested in the results, please contact J.R. Baker at jrbaker@swin.edu.au or Professor Susan Moore at smoore@swin.edu.au (phone +613 9214 5694).

If you have any complaints or concerns about the conduct of this project, please contact: Research Ethics Officer, Office of Research & Graduate Studies (H68), Swinburne University of Technology, PO Box 218, Hawthorn VIC 3122.
By clicking on the "Start" button below I certify that:
• I have read and understood the information above.
• I agree to participate in this activity, realizing that I may withdraw at any time.
• I am willing to supply my email address to the researcher in order to be re-contacted in order to gather additional data for this study with two future surveys.
• I agree that research data collected for the study may be published or provided to other researchers on the condition that anonymity is preserved and that I cannot be identified.
1. What is your email address? (We need this to re-contact you after six and twelve months for shorter follow-up surveys.) _______________________

2. What gender are you?
   1) Male
   2) Female

3. What is your age? ______

4. Please check the box which corresponds most closely with the highest level of education you have completed so far.
   1) 11th grade, or below
   2) Completed High School
   3) Partially completed an associates degree, certificate, or diploma
   4) Completed an associates degree, certificate or diploma
   5) Partially completed a bachelors degree
   6) Completed a bachelors degree
   7) Partially completed a post-graduate degree
   8) Completed a post-graduate degree

5. Please check the box which best describes your current employment situation.
   1) Employed full-time
   2) Employed part-time
   3) Employed casually
   4) Not in paid employment, looking for work
   5) Not in paid employment, not looking for work
   6) Other __________

6. Circle the number which best describes your current dating/relationship status.
   1) Never dated or been in a serious relationship
   2) Dated casually, but never been in a serious relationship
   3) Dated frequently, but never been in a serious relationship
   4) Dated frequently and been in at least one serious relationship
   5) Currently in a serious relationship but not living together
   6) Currently in a serious relationship and living together or married
   7) Other __________

7. Which best describes your current living arrangements?
   1) Living at home with a parent(s)
   2) Living with a partner
   3) Living with a friend(s)
   4) Living alone
   5) Other ______________

8. Are you the main income earner in your household?
   1) Yes
   2) No

9. What country do you currently live in? ________________
10. What country were you born in?___________________

11. Is English your first language?______________
   1) Yes
   2) No

12. For how many years have you used the internet? ___________

13. How many days per week do you typically use the internet
   1) 1
   2) 2
   3) 3
   4) 4
   5) 5
   6) 6
   7) 7

How many hours per day do you use the internet from:

<table>
<thead>
<tr>
<th></th>
<th>Today</th>
<th>Average Day</th>
<th>No Access From This Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. Home computer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Mobile phone/device</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. School or work computer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. A friend’s computer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Have you ever kept a pen and paper journal before?
   1) Yes
   2) No

20. Is this your first blog?
   1) Yes
   2) No
12.1.3 Blogging Motivations

Below are some common reasons people begin a blog. Please rate how important each is in your starting a blog.

1) Main reason
2) Minor reason
3) Not a reason

1. To document my personal experiences
2. To keep a record of what I learn
3. To keep a record of what I’m doing
4. To make sense of my daily experiences
5. To refine my thinking
6. To share practical knowledge or skills with others
7. To learn about new technology/skills
8. To practice my writing
9. To keep aware of current issues
10. To learn some new knowledge
11. To get publicity or recognition
12. To share my personal experiences with others
13. To discuss things happening in the world
14. To influence the way other people think
15. To express myself creatively
16. To share my interests
17. To show my personality
18. To tell others about myself
19. To tell others a little bit about myself
20. To provide information
21. To provide personal information about myself
22. To publish my work
23. To make money
24. To store resources or information
25. To network
26. To help me get a job.
27. To put my professional resource on the web
28. To meet new people
29. To motivate other people to action
30. To feel like I am part of a community
31. To keep friends aware of or involved in my life
32. To improve my relationships with others
33. To communicate with distant friends
34. To stay in touch with friends and family
35. To exchange opinions with others
36. To raise awareness about important issues
37. To exchange with others who have similar interests
38. To get support from others
39. To discuss problems with others
40. To get an outlet for my feelings and thoughts
41. To make a statement about things that bother me
42. To vent or let off steam
43. To express my feelings
44. To pass the time when I’m bored
45. To give me something to do to occupy my time
46. To entertain people
47. To try something new
48. To enjoy myself
49. Because it is entertaining
50. Because it is the thing to do
51. Because everyone else is doing it
12.1.4 *Social Connectedness*


\[E = \text{(Emotional Loneliness)}, \ S = \text{(Social Loneliness)}\]

Please indicate for each of the 6 statements, the extent to which they apply to your situation, the way you feel now. Please, circle the appropriate answer

1. Yes!
2. Yes
3. More or Less
4. No
5. No!

1. I experience a general sense of emptiness [E]
2. I miss having people around [E]
3. I often feel rejected [E]
4. There are plenty of people I can rely on when I have problems [S]
5. There are many people I can trust completely [S]
6. There are enough people I feel close to [S]
12.1.5 Social Provisions


In answering the following questions, think about your current relationships with friends, family members, co-workers, community members, and so on. Please indicate to what extent each statement describes your current relationships with other people. Use the following scale to indicate your opinion. So, for example, if you feel a statement is very true of your current relationships, you would respond with "Strongly agree". If you feel a statement clearly does not describe your relationships, you would respond with "Strongly disagree".

1. Strongly Disagree
2. Disagree
3. Agree
4. Strongly Agree

1. There are people I can depend on to help me if I really need it.
2. I feel that I do not have close personal relationships with other people.
3. There is no one I can turn to for guidance in times of stress.
4. There are people who depend on me for help.
5. There are people who enjoy the same social activities I do.
6. Other people do not view me as competent.
7. I feel personally responsible for the well-being of another person.
8. I feel part of a group of people who share my attitudes and beliefs.
9. I do not think other people respect my skills and abilities.
10. If something went wrong, no one would come to my assistance.
11. I have close relationships that provide me with a sense of emotional security and well-being.
12. There is someone I could talk to about important decisions in my life.
13. I have relationships where my competence and skill are recognized.
14. There is no one who shares my interests and concerns.
15. There is no one who really relies on me for their well-being.
16. There is a trustworthy person I could turn to for advice if I were having problems.
17. I feel a strong emotional bond with at least one other person.
18. There is no one I can depend on for aid if I really need it.
19. There is no one I feel comfortable talking about problems with.
20. There are people who admire my talents and abilities.
21. I lack a feeling of intimacy with another person.
22. There is no one who likes to do the things I do.
23. There are people who I can count on in an emergency.
24. No one needs me to care for them.
12.1.6 Psychological Distress

DASS-21 (Lovibond & Lovibond, 1995)

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1. I found it hard to wind down
2. I was aware of dryness of my mouth
3. I couldn't seem to experience any positive feeling at all
4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)
5. I found it difficult to work up the initiative to do things
6. I tended to over-react to situations
7. I experienced trembling (eg, in the hands)
8. I felt that I was using a lot of nervous energy
9. I was worried about situations in which I might panic and make a fool of myself
10. I felt that I had nothing to look forward to
11. I found myself getting agitated
12. I found it difficult to relax
13. I felt down-hearted and blue
14. I was intolerant of anything that kept me from getting on with what I was doing
15. I felt I was close to panic
16. I was unable to become enthusiastic about anything
17. I felt I wasn't worth much as a person
18. I felt that I was rather touchy
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)
20. I felt scared without any good reason
21. I felt that life was meaningless
12.1.7 The Internet Social Capital Scales


For the items below please rate your level of agreement.

1) Strongly Disagree
2) Disagree
3) Neutral
4) Agree
5) Strongly Agree

**Bonding Subscale**
1. There are several people online/offline I trust to help solve my problems.*
2. There is someone online/offline I can turn to for advice about making very important decisions.*
3. There is no one online/offline that I feel comfortable talking to about intimate personal problems. (reversed)*
4. When I feel lonely, there are several people online/offline I can talk to.
5. If I needed an emergency loan of $500, I know someone online/offline I can turn to.*
6. The people I interact with online/offline would put their reputation on the line for me.
7. The people I interact with online/offline would be good job references for me.
8. The people I interact with online/offline would share their last dollar with me.
9. I do not know people online/offline well enough to get them to do anything important. (reversed)
10. The people I interact with online/offline would help me fight an injustice.

**Bridging Subscale**
1. Interacting with people online/offline makes me interested in things that happen outside of my town.
2. Interacting with people online/offline makes me want to try new things.
3. Interacting with people online/offline makes me interested in what people unlike me are thinking.
4. Talking with people online/offline makes me curious about other places in the world.
5. Interacting with people online/offline makes me feel like part of a larger community.
6. Interacting with people online/offline makes me feel connected to the bigger picture.
7. I am willing to spend time to support general online/offline community activities.
8. Interacting with people online/offline reminds me that everyone in the world is connected.
9. Interacting with people online/offline gives me new people to talk to.
10. Online/Offline, I come in contact with new people all the time.
12.1.8 Social Anxiety


INSTRUCTIONS: Please check how much the following problems have bothered you during the past week. Mark only one box for each problem, and be sure to answer all items.

0 = Not at all
1 = A little Bit
2 = Somewhat
3 = Very much
4 = Extremely

1. I am afraid of people in authority.
2. I am bothered by blushing in front of people.
3. Parties and social events scare me.
4. I avoid talking to people I don’t know.
5. Being criticized scares me a lot.
6. Fear of embarrassment causes me to avoid doing things or speaking to people.
7. Sweating in front of people causes me distress.
8. I avoid going to parties.
9. I avoid activities in which I am the center of attention.
10. Talking to strangers scares me.
11. I avoid having to give speeches.
12. I would do anything to avoid being criticized.
13. Heart palpitations bother me when I am around people.
14. I am afraid of doing things when people might be watching.
15. Being embarrassed or looking stupid are my worst fears.
16. I avoid speaking to anyone in authority.
17. Trembling or shaking in front of others is distressing to me.
12.2 Study 3 Survey

12.2.1 Email Re-contacting Participants

Hello,

Thank you so much for your participation in my research study on Social Networking and Blogging 250 days ago (about 8 months ago). Because the first survey was so long, I've shortened the second survey substantially, and cut out the third survey entirely. As with the last survey, your participation is completely optional and you can discontinue participation in this research at any time.

If you would like to continue to participate, the complete consent and disclosure information can be read below, and is identical to the first survey. If you are still happy to participate in this study, please click on the coded link below to access the second survey:


Warm regards,

J.R. Baker
**12.2.2 Form of Disclosure and Consent**

[Insert Swinburne Logo]

**Self help through blogging: Psychosocial and Motivational Aspects**

**FORM OF DISCLOSURE AND CONSENT**

Thank you for your continued participation in my research project. Like the first survey, the following survey asks questions about your social life, how you’ve been feeling lately, and about your blog. This survey should take around 20 minutes to fill out. In six months a link to a final survey will be sent to you.

Being in this study is completely voluntary and you may withdraw at any stage. There are no known risks to participating in this study. Sometimes reflecting on personal matters can be upsetting for some people. If participation in the present study brings up feelings of sadness or anxiety, information about depression and anxiety are available at Beyond Blue (www.beyondblue.org.au). If you are feeling upset after participating in this research for any reason, please contact a counsellor or your local physician for consultation.

In appreciation for your participation, you will be entered into a lottery for Apple iTunes vouchers when you have completed this survey, and randomly selected winners will be emailed a voucher code to iTunes.

Your responses to the survey will be confidential. The results of this study will be published in my PhD thesis, and may also be published in an academic journal, presented at a conference, or released to the press. However only grouped results will be published and no individual’s responses will be identifiable. Storage of the data collected will adhere to the University regulations and be securely kept on University premises for 5 years before destruction.

If you would like further information on this project, or are interested in the results, please contact J.R. Baker at jbaker@swin.edu.au or Professor Susan Moore at smoore@swin.edu.au (phone 9214 5694).

**If you have any complaints or concerns about the conduct of this project, please contact:**

*Research Ethics Officer, Office of Research & Graduate Studies (H68), Swinburne University of Technology*  
*PO Box 218, Hawthorn VIC 3122*  
*Phone: +613 9214 5218*
12.2.3 About Your Blog

1. Which of the following BEST describes the primary content of your blog? (select one)
   a. Myself and my experiences
   b. My relationships
   c. Family/friends
   d. Religion / Spirituality / Faith
   e. Support groups
   f. Social topics
   g. Interests / Hobbies / Creative works / Writing
   h. News / Current events / Sports / Politics
   i. Arts / Culture / Entertainment / Gossip
   j. Business / Technology
   k. Health (general health, specific illness)
   l. Education / Academic
   m. Other

2. How often do you blog on the following topics?
   (Very often, Often, Sometimes, Rarely, Never)
   a. Myself and my experiences
   b. My relationships
   c. Family/friends
   d. Religion / Spirituality / Faith
   e. Support groups
   f. Social topics
   g. Interests / Hobbies / Creative works / Writing
   h. News / Current events / Sports / Politics
   i. Arts / Culture / Entertainment / Gossip
   j. Business / Technology
   k. Health (general health, specific illness)
   l. Education / Academic
   m. Other

3. Do you blog on any specialized topics?
   1) Yes
   2) No

Please estimate as best you can the following. Where you are unable to answer, please leave the item blank.

4. How often do you write or research your blog?
   1) Several times per day
   2) Daily
   3) 4-6 times a week
   4) 2-3 times a week
   5) Weekly
   6) Monthly
5. Where do you primarily blog?
   1) School
   2) Work
   3) Home
   4) Internet Café
   5) Other

6. About how many blogs posts do you post per month? ______

7. About how many people regularly read or have subscribed to your blog?_____

8. About how many people have read your blog in the last week?_____

9. About how many different bloggers have you read postings from in the last week?_____

10. About how many blogs have you subscribed to or read regularly?_____

11. About how many blog posts have you read in the last week?_____

12. When reading other blogs do you prefer:
   1) Blogs written about things I am knowledgeable about or very familiar with
   2) Blogs written about things I am unfamiliar with or would like to learn more about.

13. When you write posts for your blog, how often do you provide links to online resources in the posts?
   1) Very often
   2) Often
   3) Sometimes
   4) Rarely
   5) Never

**Time Blogging**

14. I spend about _____ hours per day researching or writing my blog?

15. I spend about _____ hours per day reading others’ blogs?

16. I spend around _____ hrs per week responding to comments or commenting on other blogs.

17. I spend around _____ hrs per week socializing with friends and colleagues.

18. I spend around _____ hrs per week doing things with my family/partner.

19. The amount of time I spend blogging each week (has decreased, hasn’t changed, has increased).

20. Blogging (has worsened, hasn’t changed, has improved, not applicable) the quality of my work/school work.

21. Blogging (has worsened, hasn’t changed, has improved, not applicable) my relationship with my family/partner?

22. Blogging (has decreased, hasn’t changed, has increased, not applicable) the amount of time I spend with my family.

23. Blogging (has decreased, hasn’t changed, has increased, not applicable) the amount of time I spend socializing with people in real life.

24. Do you find that abstaining from blogging causes your discomfort?
   a. Yes
   b. No
12.2.4 About Your Blog Audience

1. What is the primary target audience of your blog?
   a. People that I know offline (in real life)
   b. People that I don’t know offline (in real life)
   c. Both people I know and people you don’t know offline (in real life)
   d. Other ___________________

2. Do you believe that your blog reaches your target audience?
   a. Absolutely
   b. Probably
   c. Not sure
   d. Probably not
   e. Absolutely not

3. Who are among the readers you mainly blog for? (Select all that apply)
   a. Myself
   b. Family
   c. Friends
   d. Colleagues
   e. Internet acquaintance
   f. General Public
   g. Don't know
   h. Other_______________

4. Approximately what percentage of your blog readers are people you know in real life? ______%

5. Imagine you had kept a personal diary or journal that is exactly the same as your blog, to what extent were you willing to show it to people you know?
   a. Not willing at all 1 2 3 4 5 6 7 Totally identifiable

6. When you post entries in your blog, what name do you use for yourself? (Please only pick one that you use primarily.)
   1) I remain totally anonymous (no name, no personal information at all)
   2) I use an obvious pseudonym (e.g., graveyard or catlover)
   3) I use a non-obvious pseudonym (e.g., John Philips, which sounds like a real name but is not your real name)
   4) I use a partial real name (like your real first name, last name, or initials only)
   5) I use my full real name
   6) I use my full real name, and also reveal further personal info (like age, location, job etc.)

7. How well do you feel you know your blog’s audience?
   a. Extremely well
   b. Very well
   c. Quite well
   d. A little
   e. Not at all
   f. It is more complicated ________________

8. If there was a blogging “friend” feature would you use it?
   a. Yes
   b. No
12.2.5 Personal Blogging Style Scale

Please rate how much you agree or disagree with the following statements about blogging.

1. Completely Disagree
2. Disagree
3. Neutral
4. Agree
5. Completely Agree

1. Blogging helps me to gain insight into my problems. (T)
2. When I'm upset, blogging helps ease my distress. (T)
3. When I have a problem, I usually write a blog entry. (T)
4. Blogging helps me heal old emotional wounds. (T)
5. I don't feel as comfortable discussing personal matters in my blog, as I do discussing them directly with friends. (C)
6. I blog only about good news in my life, not problems. (C)
7. I don't write about negative experiences in my blogs. (C)
8. It's harder to talk about my problems through my blog than it is face-to-face, on the phone, or by email. (C)
9. I feel like no one reads my blogs or really cares. (D)
10. My online friends often read my blogs. (REV) (D)
11. I don't feel like the people who read my blogs understand me. (D)
12. I don't feel like the people who read my blogs understand me. (D)
13. I feel disappointed when no one comments on a blog entry. (E)
14. It doesn't bother me at all when no one reads and comments on my blog. (REV) (E)
15. It's important to me that people leave comments for my blog entries. (E)
16. I think about how my readers will react to a blog entry while I'm writing it. (E)
12.2.6 Social Connectedness


[E = (Emotional Loneliness), S = (Social Loneliness)]

Please indicate for each of the 6 statements, the extent to which they apply to your situation, the way you feel now. Please, circle the appropriate answer

1. Yes!
2. Yes
3. More or Less
4. No
5. No!

1. I experience a general sense of emptiness [E]
2. I miss having people around [E]
3. I often feel rejected [E]
4. There are plenty of people I can rely on when I have problems [S]
5. There are many people I can trust completely [S]
6. There are enough people I feel close to [S]
12.2.7 Social Provisions


In answering the following questions, think about your current relationships with friends, family members, co-workers, community members, and so on. Please indicate to what extent each statement describes your current relationships with other people. Use the following scale to indicate your opinion. So, for example, if you feel a statement is very true of your current relationships, you would respond with "Strongly agree". If you feel a statement clearly does not describe your relationships, you would respond with "Strongly disagree".

1. Strongly Disagree
2. Disagree
3. Agree
4. Strongly Agree

1. There are people I can depend on to help me if I really need it.
2. I feel that I do not have close personal relationships with other people.
3. There is no one I can turn to for guidance in times of stress.
4. There are people who depend on me for help.
5. There are people who enjoy the same social activities I do.
6. Other people do not view me as competent.
7. I feel personally responsible for the well-being of another person.
8. I feel part of a group of people who share my attitudes and beliefs.
9. I do not think other people respect my skills and abilities.
10. If something went wrong, no one would come to my assistance.
11. I have close relationships that provide me with a sense of emotional security and well-being.
12. There is someone I could talk to about important decisions in my life.
13. I have relationships where my competence and skill are recognized.
14. There is no one who shares my interests and concerns.
15. There is no one who really relies on me for their well-being.
16. There is a trustworthy person I could turn to for advice if I were having problems.
17. I feel a strong emotional bond with at least one other person.
18. There is no one I can depend on for aid if I really need it.
19. There is no one I feel comfortable talking about problems with.
20. There are people who admire my talents and abilities.
21. I lack a feeling of intimacy with another person.
22. There is no one who likes to do the things I do.
23. There are people who I can count on in an emergency.
24. No one needs me to care for them.
12.2.8 Psychological Distress

DASS-21 (Lovibond & Lovibond, 1995)

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1. I found it hard to wind down
2. I was aware of dryness of my mouth
3. I couldn't seem to experience any positive feeling at all
4. I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)
5. I found it difficult to work up the initiative to do things
6. I tended to over-react to situations
7. I experienced trembling (eg, in the hands)
8. I felt that I was using a lot of nervous energy
9. I was worried about situations in which I might panic and make a fool of myself
10. I felt that I had nothing to look forward to
11. I found myself getting agitated
12. I found it difficult to relax
13. I felt down-hearted and blue
14. I was intolerant of anything that kept me from getting on with what I was doing
15. I felt I was close to panic
16. I was unable to become enthusiastic about anything
17. I felt I wasn't worth much as a person
18. I felt that I was rather touchy
19. I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)
20. I felt scared without any good reason
21. I felt that life was meaningless
12.2.9 The Internet Social Capital Scales


For the items below please rate your level of agreement.

1) Strongly Disagree
2) Disagree
3) Neutral
4) Agree
5) Strongly Agree

**Bonding Subscale**
1. There are several people online/offline I trust to help solve my problems.*
2. There is someone online/offline I can turn to for advice about making very important decisions.*
3. There is no one online/offline that I feel comfortable talking to about intimate personal problems. (reversed)*
4. When I feel lonely, there are several people online/offline I can talk to.
5. If I needed an emergency loan of $500, I know someone online/offline I can turn to.*
6. The people I interact with online/offline would put their reputation on the line for me.
7. The people I interact with online/offline would be good job references for me.
8. The people I interact with online/offline would share their last dollar with me.
9. I do not know people online/offline well enough to get them to do anything important. (reversed)
10. The people I interact with online/offline would help me fight an injustice.

**Bridging Subscale**
11. Interacting with people online/offline makes me interested in things that happen outside of my town.
12. Interacting with people online/offline makes me want to try new things.
13. Interacting with people online/offline makes me interested in what people unlike me are thinking.
14. Talking with people online/offline makes me curious about other places in the world.
15. Interacting with people online/offline makes me feel like part of a larger community.
16. Interacting with people online/offline makes me feel connected to the bigger picture.
17. I am willing to spend time to support general online/offline community activities.
18. Interacting with people online/offline reminds me that everyone in the world is connected.
19. Interacting with people online/offline gives me new people to talk to.
20. Online/Offline, I come in contact with new people all the time.
12.2.10  **Social Anxiety**


**INSTRUCTIONS:** Please check how much the following problems have bothered you during the past week. Mark only one box for each problem, and be sure to answer all items.

0 = Not at all  
1 = A little Bit  
2 = Somewhat  
3 = Very much  
4 = Extremely

1. I am afraid of people in authority.  
2. I am bothered by blushing in front of people.  
3. Parties and social events scare me.  
4. I avoid talking to people I don’t know.  
5. Being criticized scares me a lot.  
6. Fear of embarrassment causes me to avoid doing things or speaking to people.  
7. Sweating in front of people causes me distress.  
8. I avoid going to parties.  
9. I avoid activities in which I am the center of attention.  
10. Talking to strangers scares me.  
11. I avoid having to give speeches.  
12. I would do anything to avoid being criticized.  
13. Heart palpitations bother me when I am around people.  
14. I am afraid of doing things when people might be watching.  
15. Being embarrassed or looking stupid are my worst fears.  
16. I avoid speaking to anyone in authority.  
17. Trembling or shaking in front of others is distressing to me.
13 Appendix III: Publications Resulting from the Thesis


13.1 An Opportunistic Validation of Studies on the Psychosocial Benefits of Blogging

[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
13.2 Creation and Validation of the Personal Blogging Style Scale

[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
Appendix IV: Publications Resulting from the Baker and Moore Study


14.1 Blogging as a Social Tool: A Psychosocial Examination of the Effects of Blogging

[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
14.2 Distress, Coping, and Blogging: Comparing New Myspace Users by Their Intention to Blog

[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
[NOT INCLUDED DUE TO COPYRIGHT RESTRICTIONS]
15 Appendix V: Swinburne University Press Release Relating to the Baker and Moore Study


The benefits of blogging: latest research

Date posted: Wednesday 5 Mar 2008

Blogging helps you feel less isolated and more satisfied with your friendships, according to new research.

Concern about the positive and negative effects of blogging prompted Swinburne masters student James Baker to explore the psychological variables of people who blog. Along with Professor Susan Moore, he has written two papers exploring the psychological benefits of blogging.

The first compares the mental health of people who use social networking sites such as MySpace who plan to blog with those who don’t plan to blog.

In 2000 Baker randomly surveyed users of the popular MySpace social networking site about their intention to keep a blog. He messaged 500 new users in Australia, the UK and the US, directing them to an online survey. Of the 134 people who completed the questionnaire, 94 intended to blog and 50 didn’t.

“We found that those who planned to blog were more distressed and had more negative emotional feelings than those who didn’t plan to blog,” Baker said. They were seeking social support and were not satisfied with their current social interaction and friendships.”

These people liked to use talking with others as a way of coping with stress.

“Keeping a blog is a bit like writing a diary,” Baker said. “It helps people vent their emotions, talk about their feelings and problems. The difference is that while a diary is private, blogging invites feedback from others.”

After two months, the group was surveyed again with 59 responding. Those who had kept a blog felt more socially connected and were more satisfied with their social support and friendships than those who didn’t blog.

All respondents, whether or not they blogged, reported feeling less anxious, depressed and stressed after two months of online social networking, but those who blogged felt better about their situation than those who didn’t.

The first paper “Distress, Coping and Blogging: Comparing New MySpace Users by Their Intention to Blog” appeared in the journal CyberPsychology & Behaviour.

Ends

Media Contact: Lea Kiivali 0410 569 311
Appendix VI: Further Evaluation of Psychosocial Changes in Wellbeing in terms of Personal and Topical Content

A series of 2 X 2 X 2 way ANOVAs between Time (0 and 250 days), Personal Content (high and low), and Topical Content (high and low) were conducted to examine whether Personal or Topical content specifically influenced changes in psychosocial wellbeing over time. As only one simple interaction effect was significant (Time X Personal Content for emotional distress) and most analyses showed considerably lower observed powers than the preferred minimum level of .80, these analyses were not included within the main thesis. A table with the F values for the main effects and interactions can be seen on the following page (see Table A).

There were a number of significant main effects observed, although 7 of the 11 fell below the preferred minimum observed power of .80. The means for main effects can be seen in Table B. Bloggers were higher overall after 250 days in bridging social capital (observed power = .91), and lower in social anxiety (observed power = .56), social loneliness (observed power = .58), and emotional distress (observed power = .76). Bloggers writing high amounts of personal content showed higher levels of social anxiety (observed power = .90), emotional loneliness (observed power = .71) and emotional distress (observed power = .92) overall when compared to bloggers writing low amounts of personal content. Bloggers writing high amounts of topical content were higher on scores for bonding (observed power = .69) and bridging social capital (observed power = .91), and lower on mean social anxiety (observed power = .51) and social loneliness (observed power = .54) scores than bloggers writing low amounts of topical content.

There was one significant interaction for Personal content by Time, although the observed power was low (observed power = .58). Paired samples t-tests were conducted for the low and high Personal content groups between Time 1 and Time 2 to examine for the locus of the interaction. Bloggers writing high amounts of personal content showed a significant decrease in emotional distress \( [t(41)=2.79, p = .008] \) between Time 1 \( (M = 38.95, SD = 29.09) \) and Time 2 \( (M = 29.36, SD = 19.00) \). There was no significant change for low personal content \( (p = .62) \) between Time 1 \( (M = 21.13, SD = 15.48) \) and Time 2 \( (M = 20.17, SD = 15.22) \).
Table A
F Values for the Main and Interaction Effects of Measures of Psychosocial Wellbeing for Personal and Topical Bloggers over Time

<table>
<thead>
<tr>
<th>Variable</th>
<th>Time</th>
<th>Personal</th>
<th>Topical</th>
<th>Time X Personal</th>
<th>Time X Topical</th>
<th>Personal X Topical</th>
<th>Time X Personal X Topical</th>
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</thead>
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<td>2.48</td>
<td>.14</td>
<td>6.11*</td>
<td>.04</td>
<td>.20</td>
<td>2.82</td>
<td>.11</td>
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<tr>
<td>Bridging Capital</td>
<td>11.14***</td>
<td>1.52</td>
<td>11.31***</td>
<td>1.55</td>
<td>.08</td>
<td>.92</td>
<td>4.74*</td>
</tr>
<tr>
<td>Social Provisions</td>
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<td>1.58</td>
<td>.09</td>
<td>.00</td>
<td>.07</td>
<td>.09</td>
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<td>10.80***</td>
<td>3.98*</td>
<td>3.40</td>
<td>.06</td>
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<td>4.63*</td>
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<td>1.90</td>
<td>4.31*</td>
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<td>6.52*</td>
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<td>.82</td>
<td>.96</td>
<td>.48</td>
<td>.44</td>
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<td>11.37***</td>
<td>1.07</td>
<td>4.81*</td>
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*p<.05, **p<.01, ***p<.001

Table B
The Mean Values of Measures of Psychosocial Wellbeing for the Main Effects

<table>
<thead>
<tr>
<th>Variable</th>
<th>Time 1</th>
<th>Time 2</th>
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<th>High Personal</th>
<th>Low Topical</th>
<th>High Topical</th>
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<tbody>
<tr>
<td></td>
<td>M</td>
<td>SE</td>
<td>M</td>
<td>SE</td>
<td>M</td>
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