The Influence of Technology on Adolescent Development: An Eco-Cultural Analysis of Cybersocial Activity

Stephanie Helsel

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THE INFLUENCE OF TECHNOLOGY ON ADOLESCENT DEVELOPMENT: AN ECO-CULTURAL ANALYSIS OF CYBERSOCIAL ACTIVITY

A Dissertation
Submitted to the School of Education
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In partial fulfillment of the requirements for the degree of Doctor of Philosophy

By
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August 2008
THE INFLUENCE OF TECHNOLOGY ON ADOLESCENT DEVELOPMENT:
AN ECO-CULTURAL ANALYSIS OF CYBERSOCIAL ACTIVITY

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ABSTRACT

THE INFLUENCE OF TECHNOLOGY ON ADOLESCENT DEVELOPMENT: AN ECO-CULTURAL ANALYSIS OF CYBERSOCIAL ACTIVITY

By
Stephanie D. Helsel

August 2008

Dissertation Supervised by Jocelyn Gregoire

The introduction of new technologies into society inevitably results in culture-wide changes that affect the way people work, learn, and experience leisure time. For those American adolescents with access to technology, the use of the Internet to develop and maintain relationships is quickly becoming ubiquitous, especially through social network sites; the most popular network site, MySpace, has grown exponentially since its creation in 2003. Adolescents are the primary users of such sites and many of them maintain blogs, or online chronicles that are available for public viewing and comment, along with their profile pages and friend networks. This qualitative study examined what exactly adolescents write about in their blogs, and how that content reflects the developmental tasks associated with this life stage, in particular social maturity and identity development. This ethnographic content analysis draws on Vygotskian learning theory and Bronfenbrenner’s bioecological model of development to investigate the
degree to which this online activity is shaping and is shaped by culturally constructed developmental processes. Findings showed that adolescents use their blogs as mediums through which they engage in self-expression and self-reflection, supporting both their social and identity development. Recommendations for how counselors and counselor educators can use blogs to enhance traditional interventions are provided, along with guidelines for ethical behavior when viewing adolescents’ social network site profiles.
ACKNOWLEDGEMENTS

This has been a remarkable process for me, and I wish to extend my deepest and most heartfelt gratitude to all of the people who have made it possible. First and foremost, I would like to acknowledge that it is my good fortune to have been able to pursue a college education, unlike my grandfather, who came of age during the Depression. I offer this symbol of all that I have achieved academically to him and wish to thank him for being such an inspiration in generating confidence and courage when none seems to be forthcoming.

I would like to thank the adolescents I have met during my work as a counselor, whose generosity of spirit led to my choice of a dissertation topic. As natives of cyberspace they were very patient in showing me the terrain and explaining aspects of social media to which I had not yet been exposed. I also extend my gratitude to the faculty at Duquesne University, whose guidance, wisdom, and kindness made my tenure at the University incredibly challenging, thought provoking, and above all, fun. In particular, I thank Dr. Jocelyn Gregoire and Dr. Emma Mosley for their tutelage and assistance. I am honored to be considered a peer by them and have gained so much by all that they have shared with me. I am also grateful to Dr. Lisa Lopez Levers, whose qualitative research methods course gave me the foundation upon which to pursue my research topic. Dr. Mathew Siegler, my third committee member, has also played a large role in generating the interest that eventually led to my choice of topic. His thaumaturgic computer expertise has expanded my appreciation of the ways technology can intersect with our lives for the better, and assisted me immeasurably in my data collection.
I have also benefited from the tremendous support and understanding I received during the past three years from my family, including my surrogate Pittsburgh parents and my family of friends; I am lucky to be a part of an extended network of such wonderful people.

Most of all, I would like to acknowledge my partner Alexander, without whose support, assistance, and patience I would not have been able to complete this study. I am humbled by the love he has shown me, which manifested in so many ways over the past three years, from the banal to the extraordinary. May this accomplishment of mine reflect his contributions of caring, cheerfulness, and superior editing skills, all of which have been enormously sustaining.
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CHAPTER I
INTRODUCTION

The introduction of new technologies into society inevitably results in culture-wide changes that affect the way people work, learn, and experience leisure time. Attempts to study the meaning of such changes and how they affect people’s conceptions and perceptions of the world usually follow the introduction of new technologies. When personal computers were made available and word processing software made it possible to eschew hand-writing documents in the mid 1980s, researchers pondered the question of how the creative experience of writing had changed in response to these new tools (Balduinsson, 1989). The advent of the Internet and communication technologies have once again fostered questions of how exactly we are being shaped by the new tools we ourselves have created.

For those American adolescents with access to technology, the use of the Internet to develop and maintain relationships is quickly becoming ubiquitous (Shields & Behrman, 2000). The public and archival nature of cyber communication creates a distinct change in the way such relationships have historically been sought and sustained. However, there remains a sense of mystery for some around this electronic “place” where a certain degree of knowledge and computer savvy is necessary to gain entry.
Areas of Investigation

Problem Statement

Contemporary culture appears to be in a state of constant transition, fueled in large part by continuous changes in technology (Katznelson, 1997). The increasing integration of technology into all aspects of American life is creating educational, social, and cultural shifts at an unprecedented rate. The rapid growth and evolution of cyberspace has been described as creating a cultural revolution (Penzias, 1997). The extent to which individuals are able to remain competent in the use of such technology varies greatly. The growth of technologically informed societal mechanisms, from ATM machines to interactive television shows and cell phones, has created a schism between those with knowledge of and access to technology and those without (Valadez & Duran, 2007). In general, the younger one is, the more adept at using computer technology and the better able to navigate cyberspace (boyd, 2007a; Nussbaum, 2007). The difficulty many educators and parents have in monitoring their students’ or children’s use of electronic technologies has led to confusion, fear, and speculation on the possible dangers lurking on the Internet (boyd, 2007a; Lenhart & Madden, 2007b). The lack of knowledge about what is happening in cyberspace, despite the tremendous increase in time spent online and technology’s integration into adolescents’ social lives, is a problem that has captured the imagination of the media and researchers alike. However, despite the growing amount of research being conducted about the Internet and its affect on contemporary culture, including surveys that track the amount of time youth spend on computers, there remains little in the way of in-depth examinations of how adolescents are spending their time online. Much of the research thus far has focused on what
adolescents are posting about themselves on the one-page profiles social network site members post to attract friends to their sites (Doring, 2002; Hinduja & Patchin, in press), or how much time they spend on different types of electronic communication (Kaiser Family Foundation, 2003; Lenhart & Madden, 2007b). Fewer studies have been conducted that investigate what teens are actually writing about and what about themselves they are communicating when they engage in electronic social activity. This study is concerned with such activity. In particular, the inquiry is focused on whether adolescents’ computer-mediated communication reflects development as it has traditionally been understood, or if it reflects the shifts in the environment and culture that go along with the integration of this new medium.

**Rationale**

For professionals working with adolescents, such as those in the fields of education, psychology, and counseling, it is necessary to maintain at least cursory fluency in the culture adolescents inhabit in order to build rapport and effectively communicate (Sommers-Flanagan & Sommers-Flanagan, 1997). The differences in computer use and knowledge between those born before 1977 and those under 30 years old have been deemed significant enough as to be named the cause of the biggest generation gap between young people and adults (Nussbaum, 2007). This gap has left many parents unable to supervise their adolescents’ on-line time, which has amplified concerns about their safety (Lenhart & Madden, 2007b). Informed counselors who work with adolescents can potentially play a beneficial role as cultural emissaries, able to use their clients’ own language, devise interventions within the context of their clients’ lived reality, and in turn
empower those who can protect them from whatever dangers do in fact exist in cyberspace.

Counselor educators as well as counselors are in need of having understanding and context-based awareness of the Internet and the culture within which adolescents are spending increasing amounts of time. Whether it is due to age or proclivity, if educators are unable to facilitate novice counselors’ reflection upon the issues related to social network sites such as privacy, social norms, and appropriate involvement in adolescents’ online activity, they are doing their students a disservice (boyd, 2007a). As ethnographic researchers who focus on the Internet have asserted, “it is essential to understand and embrace the new social technologies so as to guide youth through the murky waters that they present” (boyd, 2007a, p. 1). This study will offer a glimpse of youth cyberculture and how it reflects the development and the lived reality of adolescents. As such, it is a valuable starting point for educators and counselors who wish to look more deeply into this emerging cultural phenomenon.

Purpose of the Study

The structure that supports and shapes social life is different for those who have grown up with the presence of computers. While this is a generational demarcation, it is also a socio-economic one as well. Computer use in the classroom is becoming more prevalent, but there remains a “digital divide” between those with computer and Internet access at home and those without such luxury (Becker, 2000, p. 45). This subject will be explored in greater detail in chapter five; for this study’s purposes the population of U.S. adolescents who use the Internet regularly will be the focus of the inquiry.
The study is qualitative in nature and designed to illuminate what happens when adolescents use the particular social media labeled blogs, what is being communicated by the adolescents who blog regularly, and what this may reflect about the nature of adolescent social and identity development. The results of this study will serve to increase knowledge about social media and balance the sensationalistic media attention such activity has attracted. By exploring the material created by adolescents it is hoped that the metaphors previously used to comprehend cyberspace will be revealed to be either helpful in grasping the phenomenon or inaccurate and contributing to misperceptions about the Internet and the cyber activity in which adolescents engage. The results of this study will also enable those who work with adolescents to have more insight into their lived reality, to have an idea of what positive and negative factors may exist in cyberspace, and to be able to better understand this subculture.

**Research Question**

The fundamental questions for this study are what exactly do adolescents communicate in the blogs they maintain through their social network sites, and how is this medium impacting their social and identity development? Because this inquiry is concerned with the intersection between adolescent development and an emerging cultural occurrence, the appropriate starting point is an examination of the phenomenological experience of cybersocializing itself. Exploring these questions qualitatively and within an eco-cultural framework will reveal the lived experience of contemporary adolescents and where in the greater environment the Internet as an entity (or vehicle) resides.
Significance of the Study

The importance of this study is reflected in the growing number of households that possess computers with Internet access sophisticated enough to enable the downloading of video, music, and text. National surveys conducted by non-profit organizations such as the Kaiser Family Foundation and the Pew Research Center have shown that race, education, and household income influence the availability of computers, on-line access, and technical prowess (Rideout, Vandewater & Wartella, 2003). However, on average 73% of American children (61% of African American children and 67% of Hispanic children) have a home computer, with 70% of children starting to use their computer by age four (Rideout et al., 2003). In 2006, 93% of all adolescents were estimated to use the Internet (Lenhart & Madden, 2007a), up from 75% in 2005 (Lenhart, Madden, & Hitlin, 2005); 74% of those teens report using instant messaging and 90% report using email regularly (Lenhart & Madden, 2007b).

Adolescents continue to expand their technological skill repertoires, and have begun to explore the creation of content rather than merely consuming the content downloaded by others. Types of content are web page design, the filming and posting of videos, or downloading original music. One vehicle for posting artistic creations is social network sites.

Social networking web sites enable members to use pictures, video clips, graphics, and text to create profile web pages that can be connected to other profiles, creating a network of contacts. Members can peruse profile pages to get a sense of another member's likes and dislikes, favorite music, appearance, and other such preliminary and demographic information. Once a member has become part of another
member's group of friends, they are free to post comments and read others' comments, as well as delve deeper into any other communications posted by the member. Users are able to post weblogs, known as blogs, which are similar to online journals, available through a link that must be chosen from their profile page. Blogs have an interactive component, which allows readers to post comments that over time create a public dialogue. MySpace, created in January 2003, is currently the most popular network site. It is the second most heavily trafficked U.S. site (“MySpace Limits,” 2006), making it the “biggest aggregation of people on the Web” (Reiss, 2006, p. 144).

The number of social network sites and people’s involvement with them has grown exponentially along with Internet use in general. Currently, the Internet houses more than 142 million web sites, a 7.6 million increase since 2005; the number of web sites are growing at an exponential rate, with at least 1 million sites created each month (“Web Server Survey,” 2008). A company specializing in measuring global digital activity released data in July, 2007 indicating that social network sites continue to grow in number of site visitations and memberships. MySpace in particular had more than 114 million visitors in June 2007, which is a 72% increase from one year ago (“Social Networking Goes Global,” 2007). Adolescents and young adults are reported to be the population most involved in on-line public social network sites such as MySpace, Facebook, and Livejournal (Lenhart & Madden, 2007b). A 2006 survey reported that fifty-five percent of adolescents who have access to the Internet have profiles on social network sites (Lenhart & Madden, 2007b). Such high numbers suggest that sites such as Facebook and MySpace are no longer fads but are fully integrated into adolescents’ social lives.
To date, much of the media attention and research pertaining to the phenomenon of cybersocializing have focused on the vulnerability to victimization that may result when young people share identifying information about themselves on public forums such as MySpace. So far, the analysis of adolescent behavior has been limited to: amount of time spent online, what personal details are shared, and whether or not adolescents perceive the need to protect themselves while online (Abrams & Theberge, 2000; Lenhart & Madden, 2007b; Rideout et al., 2003). In response to media attention surrounding the victimization of youth on social network sites (Jesdanun, 2006; Kornblum, 2006; Stafford, 2006), MySpace creators began requiring users under 16 to maintain “private” profiles where new friends must obtain approval before being added to networks (“MySpace Limits”, 2006). A recent random examination of 2,423 adolescent profiles on MySpace revealed that only 40% were actually using the privacy setting, allowing researchers to peruse nearly 1,500 profiles (Hinduja & Patchin, in press). However, the authors analyzed text from the profiles only, looking for curse words, references to alcohol and tobacco, and the posting of revealing photographs, rather than any narrative or discourse content.

Studies that have looked at the ways in which youth’s social development may be affected by computer use have resulted in contradictory findings. Early research on the subject pointed to a positive relationship between amount of time spent online and feelings of loneliness and depression (Kraut, Patterson, Lundmark, Kiesler, Mukopadhyay, & Scherlis, 1998) as well as decreased social skills (Heitner, 2002). This implies that frequent use of computer-mediated communication, or CMC, as a replacement for face-to-face contact may indeed influence adolescent development.
However, other studies have documented the beneficial effect Internet use has on creativity (Pissarra & Jesuino, 2005), the development of intimate romantic relationships (Merkle & Richardson, 2000), and enhancing community connections (Hampton & Wellman, 2000, as cited in Hughes & Hans, 2001). Despite the possibly profound implications of the cyberspacing of adolescents’ social lives, there remains a dearth of empirical inquiry regarding the actual content of adolescents’ online communications. The questions of what they are “talking” about and to whom remain largely unexplored. The answer may help to clarify whether or not Internet use is detrimental or beneficial to adolescents and how the developmental process may be changing in response to the cultural shifts that Internet use is causing.

Theoretical and Conceptual Framework

This qualitative exploration into how young people are shaping and shaped by cyber culture draws upon social constructionism and the phenomenological view of reality as articulated by Heidegger and Husserl. Primary among phenomenological assumptions is that there is no external reality that exists apart from the individual perceiving it, which applies to the researcher as well as to the object being studied (Stones, 1988). Social constructionism reflects this stance, maintaining that knowledge and the act of making meaning of the world are created in a relational context primarily through the use of language (Burr, 1995). From a developmental perspective, the construction of knowledge occurs in two ways, on an individual, largely cognitive, level, and from the interrelationship between the individual and the environment(s) within which that individual resides. Vygotsky’s learning theory, devised during the early twentieth century, anticipated the social constructionist perspective by describing
knowledge as being embedded in social systems (Elkind, 2004). He acknowledged language as the primary vehicle through which meaning is constructed, and described a recursive process where language in turn influences how the world is conceptualized (Broderick & Blewitt, 2003). Vygotsky’s theory supports the notion of knowledge as fluid and continuously changing as a result of cultural shifts. The fact that this is happening now is evident in the influx of new words pertaining to technology, such as Internet, World Wide Web, Cyberspace, etc.

Bronfenbrenner (1979) has expanded the implications of Vygotsky's learning theory by acknowledging that development occurs within interrelated systems of differing degrees of proximity or influence. This ecological perspective, as described by Bronfenbrenner (1979), takes place by way of social interactions, which transpire in a series of nested environments, or niches. Microsystems are those in which there is direct participation on a regular basis, requiring habitual roles and activities. Home and school are obvious examples of such a system. Microsystems that are interrelated in nature and exert influence upon one another in either direction are contained within mesosystems (Bronfenbrenner, 1986). This is illustrated in the ways in which stability of home life can affect school performance, and events at school can influence behavior at home. Exosystems are those that are the most distal in relation to the individual. In a child development context, it can mean the environments frequented by parents but with which the child rarely has contact. This is also where general community and cultural influences reside (Bronfenbrenner, 1986). Reflecting Vygotsky’s theory of how social and historical forces influence the development of the mind, Bronfenbrenner (2005) conceptualized a macrosystem that ultimately provides the overarching structure and
“blueprint” for the culture as a whole (p. 81). Federal government, public policy, and the subsequent belief systems and doxa which underlie such institutions make up the macrosystem (Bronfenbrenner, 1979; 2005). Recognizing that development occurs over time and can sometimes be shaped by specific events, Bronfenbrenner identified the *chronosystem* as an overriding influence as well.

The ecological perspective has been applied to a variety of fields and settings, including psychological treatment (Abrams, Theberge, & Karan, 2005), social service delivery (Connard & Novick, 1996), crisis intervention (Myer & Moore, 2006), racial identity development (Renn, 2003), and counseling (Conyne & Cook, 2004). From this perspective, behavior is seen as a function of the person and the environment, with influence occurring in both directions. The eco-cultural developmental perspective applied in this study considers the interrelationship of micro, meso, and exosystems to adolescents’ cognitive, social, and psychological processes. The results of the inquiry will clarify where within Bronfenbrenner’s nested systems cyberspace resides and how developmental processes influence adolescent cyber activity, within the context of a culturally informed process of knowledge construction.

**Definition of Terms**

Due to the fact that computer technology has spurred the creation of new terminology, there are several terms that require definitions for the purposes of this study. In order to clarify the operational definitions of study terms, non-computer related terms such as adolescent, development, high school, and eco-cultural framework will be defined as well.
**Computer-Related Terms**

**Blog:** The term, an abbreviation of ‘weblog,’ was first used in 1997 (Blood, 2002) and refers to a “page” that can be found by way of its own electronic address, maintained by an individual who provides dated entries. The main characteristic of blogs is that entries are listed in reverse chronological order, with the most recent entry appearing first (Herring, Scheidt, Wright & Bonus, 2005).

**Blogger:** A person who maintains a weblog, who posts entries for others to read and comment upon.

**Computer Mediated Communication (CMC):** This term refers to all forms of communication that are performed electronically, such as e-mail, instant messaging and “chatting” in multiple user domains (MUDs) such as chat rooms or games where many different players can log on and participate. This type of communication can occur in “synchronous” or real time, as instant messages and chats do, or are asynchronous in nature such as e-mail messages.

**E-mail:** Electronic mail. Sending texts and other files to a designated “mailbox” that is housed on a server. Mail programs such as Outlook allow mail to be sent to an individual or multiple recipients at one time. Messages can remain indefinitely in a recipient’s mailbox, so the speed with which senders receive responses can vary greatly (Techweb Web site, n.d.).

**Instant Messaging:** Exchanging text with at least one other person instantaneously; requires all users to be logged into an instant messenger provider. Recent innovations include the ability to send files, switch to video
communication or use telephone service that is connected to the computer (Techweb Web site, n.d.).

**Cyberspace:** This is a general term used to describe the Internet. It was created by science fiction author William Gibson. He used it to describe a computer network that was operated mentally (PA Online Web Glossary, n.d.).

**Cyberculture:** Refers to the particular culture that exists on the Internet; specifically the activities, social norms, patterns of behavior, and set of values that are unique to an electronic setting.

**Friending:** The act of bestowing permission upon a person who has requested entry into one’s social network (boyd, 2006b). Those who have been given access are referred to as “friends,” although this term does not necessarily share the connotations of the non-cyber term. The concept of friendship as it is used on the web will be discussed throughout the text.

**Internet:** A decentralized network of connected computers. Computers act as hosts and independently connect to the Internet by using an Internet Service Provider (ISP) such as Yahoo or America Online (Webopedia, n.d.).

**Profile Page:** Also called a “face page,” this is where one’s likes and dislikes, appearance, and other characteristics are documented as a place holder on social network sites. A popular past time is “surfing” non-private profiles, or spending time viewing one after another. It is here that a person will post a request to be added to the profile subject’s list of friends, thereby gaining access to more documentation and activity.

**Social Network Site:** “An online location where a user can create a profile and build a personal network that connects him or her to other users” (Lenhart & Madden, 2007a, p.
1). The first pervasive social network site was called Friendster, which was initially
designed to be a dating site but grew to include a variety of social connections (boyd,
2007b).

**Web Page:** A web page is similar to a page from a book. It is an online document
usually written in hypertext markup language (HTML), which allows browsing software
to display its various components, such as graphics, text, and any links to other web sites
that may be attached (PA Online Web Glossary, n.d.).

**World Wide Web:** Also called the Web, it is a “way of accessing information over the
medium of the Internet” (Webopedia, n.d.). This “system of Internet servers” allows one
to access video, audio, and graphics through the use of HTML and also allows one to set
up links to other documents and web pages (Webopedia, n.d.). As an “outer media
structure,” it allows people to access sites that use HTML with ease; however, there are
still millions of sites that do not use this interface, such as academic and government
research facilities (Vallee, 2003, p. 108).

*Study-Related Terms*

**Adolescence:** Typically defined as the developmental stage of puberty, when sexual
maturation is achieved. Usually this begins around age 11 or 12 and ends around age 17
(Broderick & Blewitt, 2003). For the purposes of this study, adolescence is defined as
what is popularly known as the “teenage” years, characterized by increases in
independence and privilege, such as the ability to obtain a driver’s license and vote. It is
demarcated by high school grades nine through twelve, when ages typically range from
14 to 17 years. This study also further demarcates the definition of adolescence to those
who are active participants in cyberculture.
**Development:** Within an ecological perspective, development is framed as a “phenomenon of continuity and change in the biopsychological characteristics of human beings both as individuals and as groups. The phenomenon extends over the life course across successive generations and through historical time, both past and present” (Bronfenbrenner, 2005, p. 3)

**Eco-cultural Framework:** The theoretical orientation grounding the study draws upon two developmental models, an ecological one and a social learning one. The ecological model, developed by Bronfenbrenner, conceptualizes development as taking place within a series of “nested” systems, which are interrelated in the same way that an ecosystem operates. The social learning model, developed by Vygotsky, describes development as taking place within the context of the specific culture of the individual. An eco-cultural model maintains focus on both the environment of the individual and the perceptions of reality the individual maintains as a result of the culture within which he or she resides.

**High School:** Also referred to as secondary school, this is made up of the last four years of mandatory education, or grades nine through twelve.

**Delimitations of Study**

In order to examine the computer-mediated communication of adolescent bloggers, it was necessary to set parameters around the means by which blogs would be obtained and how many would be examined. This process is discussed in greater detail in Chapter three (methods). However, a description of the defined sample will follow.

Adolescence was defined as the ages represented during high school, between 14 and 17, in order to be concordant with the definition of the term juvenile, which is aged 14 or over and under age 18 (Hoffman, 2005). In the field of mental health, age fourteen
is considered to be the age of consent, when inpatient and outpatient mental health care can be sought without parental knowledge or permission, and treatment options chosen by parents can be petitioned (Hoffman, 2005). This decision-making ability is mirrored in the increase in societal privileges, such as the ability to obtain a driver’s license permit at age 15 and the ability to obtain formal employment.

In order to facilitate the location of as many blogs as possible from the broadest selection of bloggers, a social network site was chosen as the context for the research to be conducted. These hubs of Internet activity are created for the express purpose of communicating with others online, and those who maintain blogs are especially devoted to inhabiting their online identity, expressing themselves, and seeking connection with others in cyberspace (Blood, 2002). Since MySpace is the largest active social network site (Reiss, 2006), and since it is geared specifically towards adolescents, it was chosen as the means through which blogs would be collected.

Summary

The Internet is quickly becoming a prominent “place” where adolescents go to socialize and express themselves. Since the integration of technology such as personal computers, cell phones, and personal digital assistants (PDAs) into daily life, there has been an increasingly widening gap between younger generations and their older counterparts who are not as adept at adapting to technology. This gap has lead to confusion and fear on the part of many adults, who are unsure as to the nature of cybersocializing, how dangerous it may be, and what exactly their children are doing when they are online. This study works to bridge the gap by providing qualitative data
that sheds light on what is going on when adolescents spend time on social network sites, and what this might mean in terms of their development.

This introduction has provided orienting information regarding the current cultural context within which this study has taken place as well as the rationale for conducting such a study. The purpose of the study was described along with relevant definitions to aid the navigation of the following material. Chapter two gives an overview of the significant research that has been conducted to date in the areas of technology and adolescents’ use of it along with a brief history of the evolution of the Internet. The methodological framework that provides the architecture of the study is described in greater detail as well, which includes the eco-cultural conception of development and more traditional paradigms such as Eriksonian and Piagetian models of adolescent psychological and cognitive development along with Kohlberg’s model of moral development. In Chapter three the methods used to delimit the sample and the material to be studied are elucidated, followed by the way in which software was used to collect the blog content. The process of coding and categorizing the collected data is chronicled in Chapter four, which includes a summary of the study’s findings. A detailed discussion of the significance of the study’s findings as well as the implications for counselors and educators is found in Chapter five, where directions for future research and limitations of the inquiry are described as well.
CHAPTER II
EMPIRICAL FOUNDATION

Literature Review

This study seeks to examine how adolescent identity and social development manifests in social network site activity by reviewing the content of blog material posted on MySpace. In order to evaluate the results of the study within the context of the specific research questions asked, a review of adolescent identity and social development theories is required, along with an overview of research conducted on adolescent activity on the Internet. Because the Internet represents a new medium that has proven to have a powerful and far-reaching impact on the way of life of many U.S. citizens (in how they perform work duties, communicate with one another, shop for goods and services, and stay informed of local and international events) this study employs an ecological and cultural lens in its examination. The eco-cultural framework of the study reflects Bronfenbrenner’s bioecological theory of development and Vygotsky’s socio-cultural theory of cognitive development. These theories will be reviewed and the particular way in which they will be used, as an eco-cultural framework for understanding adolescent behavior, will be described. The information provided in this chapter will describe the context within which adolescent blogging activity will be examined, and will supply a foundation of knowledge against which their communication can be measured.
Adolescent Identity Development

The process of identity development has been conceptualized in many different ways and continues to be examined within different contexts such as gender, ethnicity, and culture. In general terms, identity is described as that which 'defines, characterizes, and differentiates self from others' (Charmaz, 1997, p. 37). The following overview of empirically supported models and theories outlines the cognitive and behavioral processes and characteristics of development. As is expected in an overview of this kind, the work of Erikson, Piaget and Kohlberg will be reviewed, along with the contemporary expressions of the foundations laid by those theorists. These will be discussed finally within an ecological and cultural framework.

Identity Stage Model of Development

Erik Erikson's theory of identity development is part of his larger psychosocial stage theory and has been credited with being a predominant influence in most subsequent conceptions of identity (Cote, 1996). A trained psychoanalyst, Erikson’s model is rooted in Freud's psychosexual theory of development, but incorporates elements of social psychology and an acknowledgment of the importance environment can play in the developmental process (Erikson, 1968). As a stage theory, it is characterized by the idea that development occurs over time and throughout the life span, and that movement to a new stage can signal a pronounced departure from the behavior in the last. Moving through the stages requires the ability to resolve a series of crises, which Erikson defined as "designated turning points, crucial moments, when development must move one way or another, marshaling resources of growth, recovery, and further differentiation" (Erikson, 1968, p. 16). Each successful resolution entails
reckoning with both the negative and positive aspects of the challenge each stage represents. Successful resolution of the stages results in the attainment of significant "psychosocial strengths," also referred to as virtues (Erikson, 1992, p. 53). Erikson (1992) designated eight stages in total:

1. Infancy: Trust vs. Mistrust = Hope
2. Early Childhood: Autonomy vs. Shame, Doubt = Will
3. Play Age: Initiative vs. Guilt = Purpose
4. School Age: Industry vs. Inferiority = Competence
5. Adolescence: Identity vs. Role Confusion = Fidelity
6. Young Adulthood: Intimacy vs. Isolation = Love
7. Adulthood: Generativity vs. Stagnation = Care
8. Old Age: Integrity vs. Despair, Disgust = Wisdom

(p. 56-57). There continues to be research generated that is related to the identity stage model (see Meeus, 1996, for a meta-analysis of such studies from 1966 - 1993). The first person to provide empirical support for Erikson's theories was James Marcia, who developed the Identity Status Interview, a semi-structured instrument that continues to be used (Waterman, 1999). In regards to identity development in particular, Marcia focused on only part of the overall construct by concentrating on the process of exploration and commitment (Waterman, 1999). The operational definitions for the model, as created by Marcia, follow Erikson's use of social structures and peoples' relationship to them over time (Roberts & Wood, 2006). Thus, identity was largely seen as a reflection of career choice (Erikson, 1968). This has changed over time, with researchers supporting the need
to include more aspects of adult life, such as sexual attitudes and preferences concerning marriage and parenting (Waterman, 1999).

Stage five, the developmental stage coinciding with adolescence, is a complicated phase that encompasses a number of different transitions. Erikson identified four primary tasks which must be accomplished in order to progress through role confusion to a sense of identity. These are identity diffusion, foreclosure, moratorium, and identity achievement. Diffusion, which is common in early adolescence, is characterized by a lack of exploration into one's conception of self as well as a lack of commitment to investigate such an idea. This differs from moratorium status, where there is much exploration but little commitment to any one idea, cause, or means of expression. Foreclosure is the result of the beliefs and standards of others being unquestioningly integrated into one's own sense of self. This may also be a result of living in constrained circumstances where life choices are somewhat limited (Broderick & Blewitt, 2003). Identity achievement, or the realization through experimentation of one's self in relation to others and to society, is the resolution of the stage and leads to the ability to remain loyal to oneself and one's beliefs, called fidelity. This state has been linked to high rates of well-being and other positive outcomes (Broderick & Blewitt, 2003; Gallatin, 1975; Waterman, 1999). There is some disagreement over when exactly this stage is resolved, with Marcia pointing to late adolescence (ages 18 to 22) and other researchers finding support for early or middle adolescence (Meeus, 1996).

The identity status model's integrity as a theory has come under question, and its linear, hierarchical design has not received empirical support (Meeus, Iedema, Helsen & Vollebergh, 1999). In fact, the end point is no longer recognized as having to be
'achievement' and the process itself can be a recursive one where people revisit different stages at different times (Waterman, 1982). However, it continues to be regarded as a "model for describing the transitions of identity status" in such a way as to provide the conceptual structure for a continuing stream of research (Meeus et al., 1999, p. 421).

Current Views of Identity Development

Sociological perspectives on identity development as well as some of the contemporary research conducted using the Eriksonian status model point to a possible shift in the way identity is perceived and the process by which identity is formed. The lack of empirical support for the hierarchical nature of Erikson's status model has not discounted the reality of the stages themselves (Meeus et al., 1999). This implies that the end point for identity development may fall within a wide continuum of possible states, ranging from diffusion to achievement; it has been found that depending upon one's ethnicity, culture, gender, and way of conceptualizing identity, differing end points may in fact be adaptive and appropriate (Chapman & Nichols, 1976; Enns, 1992; Tatum, 1997). Cultural changes, it is now argued, are contributing to changes in what indicators are considered important in identity formation. For example, rather than rely on societal status and social roles to formulate identity, it has been noted that a tendency to use more "reflective" terms, such as temperament, proclivities, and preferences is now frequently occurring (Snow & Philips, 1982, p. 462; Wood & Zurcher, 1988). This change has been described as indicative of a mutable self concept, "characterized by a highly flexible and autonomous capacity to modify and control self-concepts and to experience the various components of self in varying social contexts" (Cote, 1996, p. 138), which is an adaptation to the fast pace of cultural change (Wood & Zurcher, 1988). This postmodern
picture of identity development speaks to the increasing importance that one's social context has in shaping how one perceives one's authentic self, just as constructivist notions of development presume that social activity is the medium through which cognitive growth and knowledge building occur.

Construction of Cognition: Piaget and Vygotsky

The process of development requires both psychological and cognitive faculties; both are influenced by genetic and environmental factors. Intellectual functioning contributes to the ability to understand who one is as well as how one interacts with others. Two influential theories are briefly described in order to provide a foundation upon which the study findings can be interpreted.

Jean Piaget.

Erikson (1992) recognized the cognitive growth that accompanied each stage of development, linking specific Piagetian stage demarcations with his own. It is recognized that identity development is dependent upon the ability to conceptualize abstract ideas such as awareness of oneself and of thought itself. Metacognitive abilities contribute to the beginning of identity development in that they enable the questioning not just of sense of self, but of values, morals, and beliefs. This ability is thought to emerge beginning around the age of 12 and continue on into adulthood (Wadsworth, 1984). Jean Piaget's work on cognitive development became available in the West upon its translation from French into English in the 1960s, and has remained a primary influence in subsequent study (Broderick & Blewitt, 2003). A biologist and philosopher, Piaget conducted naturalistic research with children, testing mostly mathematical and logical concepts.
through observation, designing experiments and games, and conducting interviews (Bringuier, 1980). He developed a theoretical framework called genetic epistemology, focusing on the interplay between environment and biology in the development of knowledge (Piaget, 1970). Like Erikson, Piaget created a stage theory that was comprised of four distinct types of thought.

1. Infancy to Two years old: Sensorimotor Experience
2. Two years to Seven years old: Preoperational Thought
3. Seven years to Twelve years old: Concrete Operational Thought
4. Twelve years through Adulthood: Formal Operational Thought

(Pulaski, 1980, p. 27-30). Each stage represents specific cognitive abilities that grow from cognitive structures or schemes, which organize and make sense of information. Movement from one stage to the next is dependent upon the assimilation of new information into existing schemes or the creation of new ones to accommodate new knowledge. Piaget conceptualized structures as being "constructed by the interaction between the individual's activities and the object's reactions" (Bringuier, 1980, p. 37). Infants, lacking in many cognitive structures, begin by reacting to stimuli. As they grow, they begin to maintain representations of objects that are in their immediate range of vision. They do not yet have a sense of the 'permanence of objects' (Bringuier, 1980, p. 20). By age two, children move from the sensorimotor to the preoperational stage. This is characterized by an increase in the ability to maintain mental object representation, but the inability to use deductive reasoning makes reasoning illogical (Chapman, 1988). During the concrete operational phase, the ability to use logical, deductive reasoning increases along with an understanding that perception can be subjective. From
adolescence on, the ability to think theoretically, in abstract terms, and to reason hypothetically increases, but some people never achieve proficiency (Chapman, 1988).

Piaget's interest in how children and adolescents formulate knowledge and how this changes over time is related to the constructivist orientation that reality is subjective and occurs within a social context. Much has been written about the extent to which Piaget's theories were compatible with the Russian learning theorist Lev Vygotsky, and both remain acknowledged forefathers of constructivist perspectives (von Glasersfeld, 1979; Pass, 2004).

*Lev Vygotsky.*

Lev Vygotsky, an educator and psychologist, developed theories on how knowledge is constructed that intersect Piaget's at several points. He did examine knowledge construction from a developmental standpoint, but through the lens of how culture and society influence the transmission of knowledge rather than solely by examining cognitive maturation. Known as a cultural-historical or socio-cultural theory, Vygotsky's work is unique in the way he maintained focus on the necessity of social action in the formation of knowledge and cognitive skill (Pass, 2004), captured in the following quote: "All the higher functions originate as actual relations between human individuals" (Vygotsky, 1978, as cited in Del Rio & Alvarez, 2007, p. 279).

Preceding formal constructivist psychological theory, Vygotsky argued that language is a primary tool for the acquisition of knowledge, since it is through communication that symbolic representations are given meanings that are by their very nature culturally ascribed (Langford, 2005). He stressed the importance of signs, or tools that enable children to learn and to think. Language was considered to be the most important sign,
with letters and numbers being additional examples. Signs are culturally informed and as such can be different depending on the society within which they are used. Children learn by assimilating the language of their society, which can change over time, and is essentially the product of other peoples’ thoughts (Cole, 2004). Therefore, the “mind” that develops in part through the acquisition of language is not wholly the child’s and can be thought of as part of a collective experience; a person cannot be separated from his or her culture.

Influenced by Marxist ideas on the development of the forces of production and Hegel's description of man's historical development and the relationship between language and meaning, Vygotsky explored the importance of one's inner world in cognitive ability formation (Langford, 2005). It is at this point that his ideas diverge with Piaget. The importance of egocentric speech, also described as babbling, was considered by Vygotsky to be a manifestation of the first signs of thinking to oneself, which later becomes the capacity for reasoning and sophisticated thought. Piaget did not place as much importance on this phenomenon or interpret it to have such meaning (Pass, 2004).

While Vygotsky recognized Piaget's stage theory as essentially correct, he did not endorse the demarcation of stages by age and described them as being more fluid (Pass, 2004). He described an optimal learning process that was later called "scaffolding," as it referred to a process of building knowledge. Children create internal systems that organize information, which can be advanced with the help of more capable thinkers who provide guidance and tools to build incrementally on what they already know. This led to the concept of "proximal zone of development," describing the "initial and terminal thresholds within which development can take place" (Del Rio & Alvarez, 2007, p. 277).
This zone determines the "sensitive periods for different educational goals" and is associated with, but not synonymous with, mental or chronological age (Del Rio & Alvarez, 2007. p. 277).

Vygotsky's socio-cultural theory is a useful way to examine current adolescent development in this study. It underscores the cultural context that is as influenced by computer use as it is influential in the changes that computer use has initiated. The very notion of identity, how it is derived, and what it means to be social, is changing as contemporary culture accelerates. As social researcher Langdon Winner (1997) writes:

The "creation of new technical devices presents occasions around which the practices and relations of everyday life are powerfully redefined, the lived experiences of work, family, community, and personal identity…some of the basic cultural conditions that make us who we are" dramatically shift to accommodate this new way of being in the world (p. 992).

Identity and interpersonal awareness are constructed as a result of factors such as environment, biological make-up, ethnicity, gender, and culture. Vygotsky provides a foundation for understanding this contextualized process. His theory is particularly appropriate for the purposes of this study as it has a multidisciplinary aspect, influencing anthropology, sociology, and psychology (Cole, 2004). The examination of adolescent cybersocial behavior encompasses aspects of each of these disciplines, as it investigates the affects of cultural, relational, and personal influences on development.

Current Views of Cognitive Development

The formal operations developmental period outlined by Piaget is still acknowledged as a valid demarcation, with the ability to think abstractly increasing as
children become adolescents. Piaget's assertion that the capacity for abstract thinking allows adolescents to make meaning of the world through theory building has been empirically proven to be a rather incomplete and messy process (Harter, 1999). Lacking in consistency, many beliefs about identity are not tested for truth in the external world and can therefore be unrealistic and convoluted (Harter, 1999). It has been shown that self-concept can change drastically from early, middle, and late adolescence, with one's beliefs and values becoming more important reflections of identity than attributes or perceived skills, marking a shift towards greater self-awareness rather than awareness of others' reactions (Harter, 1999). Self-concept can remain abstract and compartmentalized, and differ according to the environment in which one finds oneself and the expectations one holds. The tendency to compartmentalize can save early adolescents from confusion around contradictory behavior, but in middle adolescence the capacity to see across contexts can lead to "unstable self-representations" (Harter, 1999, p. 69). As adolescents age, their ability to normalize these multiple self-representations increases, which can alleviate the discomfort that earlier confusion caused. Neo-Piagetian theory recognizes the increased need for social interaction in the development of self-concept (Harter, 1999), making it more compatible with Vygotskian development theory, which identified social-cultural factors as being more influential than biological factors in development (Karpov, 2005).

Neo-Vygotskian perspectives of development focus even more on the social interactions between adolescents and the members of their peer group. This is seen as a "concentrated experience in social norming" which facilitates the internalization of norms and values (Karpov, 2005, p. 210). These in turn become the tools used for self-
reflection. Cognitive processes are recognized as becoming more abstract and conceptual, allowing for moral reasoning, and contributing to the questioning of parental logic, but the social implications of having sexual feelings and attractions are seen as being a more profound influence on development (Karpov, 2005).

Therefore, much like in contemporary concepts of identity formation, cognitive development is now seen as something that contributes to self-awareness and the ability to gauge one's ability to perform in social situations. It is also acknowledged that one's self-concept and sense of self-worth can vary markedly across contexts and relationships (Harter, 1999). Perhaps most significantly for this study, the development of identity is now considered to be constructed both cognitively and socially as a result of individual capacities as well as relational experiences (Karpov, 2005).

Adolescent Social Development

Social maturity occurs within the context of identity and cognitive development. From the identity stage model perspective, as adolescents enter the moratorium stage, they begin a process of exploration and must differentiate themselves from their parents in order to question what is meaningful to them. This signals a time of increased socialization with peer groups, and a preoccupation with how they are viewed by their friends (Erikson, 1968). Erikson (1968) described the necessity of repudiating many societal institutions in order to connect with one's own ideas and beliefs, sanctioning a certain degree of rebellion. It is not unusual for adolescents to pull away from their parents and families, increase their affiliation with their friends, deal with their self-consciousness by focusing on how they may appear to others, and possibly aligning themselves with a designated leader in their peer group. Early identity development is
marked by a period of “trying on” different identities, shown through changes in
behavior, dress, friends, style of music preferred, and personality (Marcia, 1980,
Waterman, 1999). Over time, however, the expectation is that adolescents will begin to
become more aware of who they are and how they want to live in the world.

As social development continues, dependence on adults decreases, and a greater
reliance on peer groups surfaces, which will tend to become more mixed rather than
same-gender (Donnellan, Trzesniewski & Robins, 2006). Peer groups tend to be heavily
demarcated and structured (Pratt & George, 2005). Self-esteem and a sense of
connectedness can often be interrelated, making the cultivation of friendships primary
(Pratt & George, 2005). Risk-taking behavior increases as adolescents test their own
limits and react to peer pressure. This can also signify a time when adolescents maintain
closer ties with those who share their ethnicity, as part of their growing awareness of
being members of a particular group or culture (Tatum, 1997).

Cognitive advances contribute to the ability to maintain greater sophistication in
social functioning. In adolescence, this is frequently a time for philosophical queries into
the nature of reality, existing social structures, and goals for the future. The ability to
think abstractly enhances this process and allows the nature of adolescent inquiry to
increase in scope and subject.

**Sexual Development**

Adolescence is most significantly marked by the biological changes associated
with the onset of sexual maturation, feelings of attraction towards others, and sexual
experimentation. Research, as well as recent public debate regarding abstinence programs
in high schools, have been focused on the negative aspects of adolescent sexual behavior
despite evidence that sexual exploration is "critical to sexual identity formation," which is
considered to be a "core aspect" of overall identity (Herold & Marshall, 1996, p. 76).
However, most schools offer some form of HIV and sex education programming in order
to prevent negative consequences associated with sexual activity (Kirby, 2002).

The age of onset of sexual activity has been decreasing, with the majority of
adolescents (88%) engaging in sexual intercourse, cunnilingus and/or fellatio by the time
they reach early adulthood (Kaestle & Halpern, 2007). Currently pregnancy rates for
adolescents in the U.S. are around 8%, the lowest they have been since 1990 (Planned
Parenthood Web site, 2007). An increase in the use of contraception as well as an
increase in sexual practices other than vaginal intercourse (Weiss & Bullough, 2004) has
contributed to this decline. Several diverse factors have been shown empirically to have
strong correlations with age of first intercourse as well as sexual activity in general.
Economic constraints, employment opportunities, degree of chaos and disorganization in
the school and community, all contribute to adolescents' sexual practices. Socioeconomic
status has a negative relationship with sexual activity, with low economic status
associated with high rates of early sexual behavior and rates of pregnancy (Lammers,
Ireland, Resnick & Blum, 2000; Planned Parenthood Web site, 2007). Attachment to
school and a desire for post-high school education is linked with delaying sexual activity
(Kirby, 2002). Parental attitudes and degree of supervision are also influences, but there
is evidence to suggest that peer norms have the more powerful influence on sexual
activity (Beal, Ausiello & Perrin, 2001). Families with two parents as well as religious
affiliation have also been linked to the delay of sexual intercourse in high school
(Lammers et al., 2000). In terms of personal characteristics, a high degree of impulsivity is positively correlated with early sexual activity, number of sexual partners, and the occurrence of sexually transmitted diseases (Kahn, Kaplowitz, Goodman & Emans, 2002). Engaging in delinquent behavior such as smoking cigarettes or using illegal substances such as cannabis or alcohol, or having friends who do has also been shown to be related to early onset and frequency of sexual behavior (Tapert, Aarons, Sedlar & Brown, 2001; Whitbeck, Yoder, Hoyt & Conger, 1999). Feelings of depression have also been shown to be positively related to sexual activity in girls (Whitbeck et al., 1999).

Although there is evidence that adolescence is a time for experimentation without an anchored sense of self it is also frequently reported that this is a time when self-awareness related to sexual orientation grows (Broderick & Blewitt, 2003). Sexual attraction, an aspect of sexual orientation, can be characterized by strong emotional or physical feelings (Auslander, Rosenthal, & Blythe, 2006). Environmental and cultural factors can interact with gender to influence the process of sexual maturity (Auslander, Rosenthal, & Blythe, 2006). This process of recognizing sexual orientation is complicated by the fact that there is little social support for such experimentation and heterosexist behavior is frequent. Therefore, the process of exploring or clarifying sexual orientation can be very different depending upon which orientation adolescents are investigating. Adolescents who identify as lesbian or homosexual are significantly more likely to have suicidal and depressed feelings (Russell & Joyner, 2001) and suffer academically (Fontaine, 1998) than their heterosexual counterparts. At this time, little is known about the ways in which Internet use may help gay and lesbian adolescents explore their sexuality due to the relative anonymity that characterizes cyberspace.
Several stage models exist to describe the process of developing awareness and a subsequent homosexual identity, but there is a dearth of such research on heterosexuals (Auslander, Rosenthal, & Blythe). Such stage models have been criticized for generalizing experiences of Caucasian males onto minorities and lesbians and few have taken into account the historical and cultural context within which individuals grapple with issues related to orientation (Alderson, 2003). Recent ecological development models have sought to include such influences by examining the environment within which exploration is occurring, the individual personality characteristics of the person exploring, and the interaction between the three factors (Alderson, 2003).

Adolescent identity development occurs in part by investigating values and beliefs, sexual feelings, and time with mixed peer relationships, all mediated by factors such as personality and culture. It is a time of flux that can be anchored by supportive parents, self-esteem, and goals for the future (Jessor, Turbin, & Costa, 1998; Reininge, et al., 2005). The act of exploring is characterized by testing limits and making choices about which peers, behaviors, and aspects of adolescent culture to investigate. The way in which choices are considered is related to moral development, which also grows and changes during this time.

Moral Development

As has been noted, cognitive development theorists have recognized that a sense of justice and morality develops during the formal operational stage, once abstract thought and inductive reasoning is possible. This is considered to be a function largely of peer social interaction as well as a process of integrating values and beliefs that are communicated through parental discussions and attachment (Harter, 1999). There is also
evidence that the ability to regulate one’s emotions and impulsivity is related to the
degree to which empathy and sympathy inform moral behavior (Eisenberg, 2000).

Piaget included moral development stages in his cognitive theories, recognizing
that children first begin to consider rules as absolute around age seven. They expect to be
punished if rules are broken, and understand morality as being defined by authority
figures such as parents and teachers. Moral judgments are made by considering the
consequences of actions rather than the intent behind them (Kohlberg, 1994). By age
twelve, there is a shift in perception, and rules are considered to serve a social function to
engender cooperation. There is a more fluid approach to moral guidelines, and rules are
seen as being adjustable in response to the needs of the group (Bringuier, 1980). This
relativistic thinking is also coupled with the ability to consider the intention behind
actions when making a moral judgment on behavior (Kohlberg, 1994).

Drawing on the work of Piaget, Lawrence Kohlberg pioneered the use of moral
dilemmas with children to ascertain stages of moral development in children and
adolescents. Beginning in 1959 he began interviewing children aged 10, 13, and 16,
giving them dilemmas and asking them to explain to him their reasoning behind what
they felt was right and wrong. Based upon those interviews, Kohlberg devised a six-stage
model of moral development. The first two stages fall under the preconventional
category, the next two stages reflect a conventional level of moral understanding, and the
last two stages reflect more individual beliefs and are labeled postconventional.

Stage 1: Punishment and Obedience Orientation

Stage 2: Individualistic Orientation (Concrete)

Stage 3: Relational Orientation
Stage 4: Social Order Orientation

Stage 5: Individual Rights and Social Contract Orientation

Stage 6: Universal Ethical Principals Orientation

(Kohlberg, 1985, p. 488-9). Children move from adopting moral behavior to avoid punishment, to serving their own individual needs, to serving their interpersonal needs at stage 3, occurring around age 14. By age 16, adolescents respond to morality from the point of view that rules and values are needed in order to hold the fabric of society together. Some, but not all, adults go on to value the principals behind the moral codes that shape society, such as democracy (Broderick & Blewitt, 2003).

Subsequent research into moral development has shown that Kohlberg’s assumptions do not necessarily hold true for all people. For example, Kohlberg’s definition of moral reasoning is grounded in a sense of value for individual rights and democratic principals. This can be somewhat different for women than for men. Carol Gilligan (1988) performed her own moral dilemma research with women and found that they tended to make judgments based on caring for others and considering the good of the group versus individual rights. Other researchers have found that a key factor in moral development is the ability to take another’s perspective, and stage models have been formulated to chart the development of such abilities. Selman (1980) and colleagues working at Harvard conceptualized four levels of perspective-taking based upon naturalist inquiry similar in design to Piaget, Kohlberg, and Gilligan. According to this theory, until the age of six children are unable to differentiate their own perspectives from others. From six to nine, children become aware that each person can have a subjective experience of reality and have different feelings and opinions. At level two,
occurring around age nine, children become more sophisticated in their ability to place themselves in others’ positions and remember that others can do this as well. By age fifteen, adolescents are proficient in taking third person perspectives and are aware of themselves both as a subject and as an object, or observer of oneself. By adulthood, level four has been reached, and the fact that behavior is due to deep, psychological processes that one may or may not be aware of is understood.

At this level, the adolescent or young adult can abstract multiple mutual … perspectives to a societal, conventional, legal, or moral perspective in which all individuals can share. Each self is believed to consider this shared point of view of the generalized other or social system in order to facilitate accurate communication and understanding (Selman, 1980, p. 40).

The capacity for moral reasoning is an important part of adolescent social development. It draws upon cognitive capability, emotional regulation, the ability to interact with others, and the ability to be self-reflective. Contemporary theorists now acknowledge that in addition to cognitive capabilities, there are other factors that contribute to the development of morality, such as gender, ethnicity, and culture (Smetana, 2006). Kohlberg is acknowledged as having blended psychological, philosophical, and educational elements in his theory, but has been criticized for his cultural relativism (Locke, 1985) and his assumption that ethical development culminates in a sense of justice (Carter, 1985). Postmodern conceptualizations extend the perspectives of developmental theorists such as Kohlberg by acknowledging the cultural and environmental influences in the construction of the self. Kohlberg’s influence is
continually felt in the widespread educational programs he designed and in the continuing debate over how their efficacy could be improved (Leming, 1985).

**Bioecological Development Model**

*Environmental Influences*

The bioecological model of development (sometimes referred to as a social-ecological or ecological model), created by Uri Bronfenbrenner, is “an evolving theoretical system for the scientific study of human development over time” (Bronfenbrenner, 2005, p.3). The model takes into account phenomenological and experiential aspects of development, namely the way in which individuals affect and are affected by their environments and the subjective experience that takes place across one’s life span. According to Bronfenbrenner (2005), development takes place across time and within multiple interdependent environments, and is a result of social relations, biology, and predisposing personality characteristics. The bioecological model has been used to examine development as it progresses by taking into account contextual factors. The way in which individuals are seen as being influenced by their environment and agents of influence upon the environment shares some similarities with systems theory. However, the underlying assumptions differ in that within an ecological approach, the context an individual lives within is itself the system. Rather than operating according to physiological laws as organisms are seen to do in systems theory, individuals are seen as unpredictable and capable of changes in behavior that comply only with unique meaning systems that are usually in a state of flux (Stewart-Sicking, 2004). Hence, there is no expectation that individuals act according to “unbreakable laws of systemic action or organic unity” as there is in systems theory (Stewart-Sicking, 2004, p. 70).
Bronfenbrenner built upon social psychologist Kurt Lewin’s theory that behavior is a function of the interaction between person and environment (B = P x E). The bioecological model of development categorizes specific environmental influences by their proximity to the individual. Bronfenbrenner described one’s environment as made up of nested systems that reside “each inside the next like a set of Russian dolls” (Bronfenbrenner, 1979, p. 3). The microsystem houses the functions and relational contexts that make up everyday life, such as home, school, and friends. This niche is nested within the mesosystem, which houses the links between different social settings. A mesosystem is an overarching system of smaller microsystems, mesosystems can occur through an individual, such as a teacher who also is the choral director at the church, or through communication, such as when a parent discusses school behavior with a child (Warren, 2005). The mesosystem is nested within the exosystem, which is comprised of systems that can influence children while they have no direct participation within it, such as their parents’ workplace or social network (Bronfenbrenner, 1979). This niche is nested within the macrosystem, which houses the values, ideologies, and policies created by the culture within which the child resides (Broderick & Blewitt, 2003). Just as in a natural ecosystem, each aspect of one niche can have an impact upon another; none function independently of the others.

In order to illustrate exactly how individuals interact with the series of environments the niches represent, the person-process-context-time model was formulated. This model explores specific personal characteristics that mediate an individual’s response to his or her environment. For example, biological characteristics that influence functioning (e.g., intelligence, ability), personality characteristics that
influence the extent to which one engages with one’s environment (e.g., shyness, willingness to explore), and social characteristics (e.g., married or single) that influence responses received from others (Bronfenbrenner, 1993). These personal “developmentally instigative characteristics” influence the developmental process itself (Bronfenbrenner, 1993, p. 11). The context within which growth occurs varies according to the proximity of the environment, characterized by the micro, meso, and macro systems. The historical time within which development occurs has a tremendous impact on the process itself, and is included as the chronosystem.

Means of Development

The process of development occurs as a result of ecological transitions. These are seen as being agents that facilitate development as well as consequences of development, representing the way in which people must adjust to changes in their environment and the environment itself changes to accommodate differences in its inhabitants (Bronfenbrenner, 1979). Ecological transitions occur “whenever a person’s position in the ecological environment is altered as the result of a change in role, setting, or both” (Bronfenbrenner, 1979, p. 26). For example, an adolescent moves from middle school to secondary school, begins a part time job, or initiates a dating relationship. Within an ecological perspective, the roles people play are very influential in shaping the activities and relationships that in turn shape the course of development. The actual role itself and the expectations that come with each role combine to impact the behavior of those playing the role and those interacting with the player. In this way they are defined as a powerful context of development (Bronfenbrenner, 1979). As adolescents develop, they
play an increasing number of roles (student, employee, romantic partner), which in turn influence the course of their continued development.

Development is also reflected in the type of molar activity in which people engage. Defined as an “ongoing behavior possessing a momentum of its own and perceived as having meaning or intent by the participants in the setting,” it draws on Lewinian concepts (Bronfenbrenner, 1979, p. 45). Molar activities are processes rather than a single act, for example reading a book versus sitting down into a chair. They require persistence and are fueled by intent. As adolescents develop, they become capable of engaging in molar activities that are increasingly complex in substance and in structure. The more complicated the structure of the activity, the more a person must manage or alter the environment. In this way such activities can occur across systems. For example, a sophomore in high school starts a tutoring program that helps children in the neighborhood middle school. This changes the sophomore’s microsystem in that she now interacts with certain middle school children; the program changes the mesosystem because the link between the educational and personal experiences have now expanded; the tutoring program also is an addition to the exosystem, as it becomes a part of the school system and exerts influence on the community.

The fact that Bronfenbrenner’s developmental model incorporates the importance of so many different environments makes it uniquely sympathetic to multidisciplinary approaches. That is particularly relevant to this study, which investigates psychological processes as they intersect with sociological and anthropological factors. By using this developmental model as part of the theoretical framework of the study it is possible to maintain grounding in the psychological discipline while acknowledging other
influences. The developmental models discussed earlier have focused on what specifically changes as children become adults. The bio-ecological model allows one to explore precisely how this maturation process occurs.

Eco-Cultural Developmental Perspective

Adolescent development has been shown to be influenced by factors such as gender and ethnicity as well as societal change and the acquisition of cognitive skills (Greenfield, Keller, Fuligni, & Maynard, 2003). Although research supports more similarities than dissimilarities, adolescence is a time when socially ascribed gender roles and ideas about race become more apparent and can affect self-esteem and sense of self (Enns, 1992; Tatum, 1997). Ecological approaches have been applied to a wide range of developmental issues, such as formulating racial identity (Renn, 2003), sexual orientation (Alderson, 2003), and at-risk behavior (Reininger, et al., 2005). They have also been applied to specific issues relevant to adolescents, such as treating adolescent depression (Abrams, Theberge, & Karan, 2005), parental incarceration (Arditti, 2005), and understanding adolescent resiliency (Jessor et al., 1998). The growing awareness of these influences has led to the "developmental contextualism" school of thought (Adams, Montemayor & Gullotta, 1996, p. 1). The importance of personal context, whether physical or cultural, has influenced the growth of ecological development and counseling theories (Adams et al., 1996; Conyne & Cook, 2004), first advanced by Uri Bronfenbrenner. Contemporary perspectives on development now espouse "ecological conceptions that depict variable pathways" of development rather than viewing developmental processes as occurring in broadly general ways (Fischer, 1999, ix). The postmodern reality of rapid culture change, increased exposure to multiple cultures, and
the acceptance of more flexible and diffused conceptions of identity and behavior require ecological approaches that acknowledge environment as essential to meaning making. As well, post modern reality requires approaches that respect cultural influences and maintain a counterbalance to the traditional positivist narrow focus on what constitutes "normal" behavior.

Eco-cultural approaches have become popular in anthropology, sociology, and developmental psychology. These approaches take into account the interaction between environmental conditions and biological characteristics defining development as a process of adaptation to the conditions and limitations represented in any given environment (Greenfield, et al., 2003). Different theorists include different variables in their definition of environment, such as physical characteristics, economic structure, community size and make-up, and social networks (Greenfield et al., 2003). For the purposes of this study, the specific lens is informed by the work of Bronfenbrenner and Vygotsky and draws on contemporary eco-cultural conceptions of development. This examination of adolescent blogging practices takes into account the larger culture and the Internet's place within it, contemporary manifestations of friendship and socializing, and how adolescents themselves perceive their identity and social practice as evidenced by their blog content. An eco-cultural framework provides a context for understanding this emerging medium as it considers adolescent culture and adolescent cyberculture. As a result of using this framework, it will be possible to postulate where within Bronfenbrenner's nested systems cyberspace resides. This will further allow a greater understanding of the influence and impact it may exert on U.S. adolescents.
Overview of Adolescent Internet Use

The emergence of the computer and of the Internet in particular has added a new dimension to the ecology of adolescents’ lived reality. As it has become more integrated into most middle class adolescents’ lives, more research has been conducted to investigate the impact new technology is having on all facets of society. The following review will provide a brief history of the Internet, weblogs, and adolescent use of them, as well as current research into the developmental implications of cybersocializing.

Currently, 93% of U.S. adolescents and 87% of their parents spend time regularly on the Internet (Lenhart & Madden, 2007a). The ability to peruse cyberspace has its roots in the computer prototypes first created around 1936 (Vallee, 2003). In the late 1960s the Advanced Research Projects Agency, funded by the government for Cold War purposes, sponsored the creation of a network that would allow scientists from different universities to communicate with one another (Vallee, 2003). This eventually resulted in the Internet. By 1992, it was possible to send graphics, audio, and video clips via the World Wide Web to any computer using the Internet with ease (Vallee, 2003). The first social network site, Friendster, launched in 1997.

Social network sites, or SNSs, are “places” where one can build a network of contacts, largely by perusing member profile pages, where photos and other personal information is displayed. A more complete definition is provided by Internet ethnographic researchers boyd [sic] and Ellison (2007):

A web-based service 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 (Social Network Sites: A Definition section, para. 1).

Currently, SNSs are immensely popular. A 2006 survey conducted on 935 adolescents aged 12 to 17 showed that 55% of those who use the Internet have created a profile and use the sites (Lenhart & Madden, 2007b). Nearly half reported that they visit the SNSs daily or more; 22% visit several times per day (Lenhart & Madden, 2007b). On average, time spent on SNSs has increased to nearly 1.5 hours per day (Hempel & Lehman, 2005, as cited in Barnes, 2006). As of 2005, 4 million adolescents maintained weblogs, or blogs, as part of their SNS activity (Lenhart, Madden & Hitlin, 2005); the majority do so on MySpace, the most popular social network site.

MySpace began in 2003 with a philosophy of user-driven content, rather than dictating what kind of information could be shared by members (Barnes, 2006). Originally populated by independent music bands and their fans, MySpace gradually became more popular until 2004, when the site began to admit minors (boyd, 2007b). By 2005, membership had exploded and has continued to grow. In 2006, it was reported that MySpace had 90 million members, or around one-third of the entire U.S. population (Noguchi, 2006). Eighty-five percent of adolescents who use a SNS have a MySpace profile in particular, although they may manage profiles on more than one site (Lenhart & Madden, 2007b).

Members create accounts and design personal profile pages, using photographs, lists of preferences, graphic designs, music, and increasingly, video clips. Unless set to “private” other members can randomly search the profiles, looking for people with whom to connect. Despite the fact that those under 16 are required to use the privacy setting,
between 40% (Hinduja & Patchin, 2007) and 66% (Lenhart & Madden, 2007b) of adolescents report actually using this function, allowing non-network site members to view around half of all sites designed by those aged 16 or younger. Among those adolescents who have not put limits on the accessibility of their sites, 46% occasionally include misleading or false information, for privacy protection (Lenhart & Madden, 2007b) or for playful, exploratory, or social purposes (Gross, 2004). However, other research indicates that the overall tendency is to provide accurate demographic information (Doring, 2002; Barnes, 2006). Those who have been granted access to a member’s profile and larger group of contacts become part of that member’s network. The act of granting access is called “Friending” and contacts are referred to as “Friends.” However, due to the varying degrees of intimacy possible with computer-mediated communication, this term is not to be understood in the traditional way (boyd, 2006b). There are many different reasons for allowing a newcomer into one’s network, from the fact that their profiles looked interesting, to pressure from one’s offline peers to have a large number of Friends, to wanting a larger audience (boyd, 2006b).

Adolescent Blogging

The first blog appeared in 1996, and was labeled a “weblog” in 1997 (Herring, et al., 2005). The format of early blogs served to filter web content for readers by listing new and interesting web sites, providing links to them as well as parsimonious and often acerbic, sarcastic, or humorous commentary (Blood, 2002). Creating a blog required knowledge of how to code HTML, and thus blogs were accessible to only a small proportion of the population. However, free software that assisted in the creation of weblogs became available in 1999, and these software tools such as Blogger were user-
friendly and required no programming expertise (Blood, 2002). As it became easier to create blogs, there was a shift in format that was less link-driven and more personal, with widely varying content. By 2006, the majority of blogs were found to be created and run by individuals who mostly chronicle daily experiences and feelings (Qian & Scott, 2007).

Since their growth in popularity, blogs have been referred to as being the equivalent of online journals or diaries (Nussbaum, 2007). However, some researchers warn of the bias that stems from relying too heavily on metaphors to conceptualize this new phenomenon, and experienced bloggers tend to refrain from setting any limiting structure by providing a definition (boyd, 2006a). For the purposes of this study, the blogs will be defined as “a culture-driven medium upon which the practice of blogging can occur” (boyd, 2006a, Reframing Blogging and Blogs section, para. 12), with a basic structure that includes entries listed in reverse chronological order. Blogging, or writing and/or maintaining a weblog, can include responding to the readers who have posted comments or adding new content. Blog content builds on itself as new material is added, with the latest entries being the first ones visible.

Less than half of all adolescents who are active users of SNS (39%) have links on their profile pages directing users to their blogs (Lenhart & Madden, 2007b). There, they may post video clips, photographs, and/or text. They may list links to other web sites they find interesting or entertaining, as well as post texts that reflect their daily experiences, for the consumption of others. The extent to which that text is read by close family, friends, or strangers, is an unknown factor that may be a key to some of the medium’s appeal (Reed, 2005).
There is little empirical evidence of how much time adolescents spend blogging or what personality characteristics lead to blogging behavior. In general, recent exploration of the phenomena by the Pew Research Center (Lenhart & Madden, 2006) shows that there are an estimated 12 million U.S. bloggers, 54% of whom are under the age of 30, and 50% are women. Sixty percent are Caucasian, 19% are Hispanic, and 11% are African American. Thirty seven percent of bloggers surveyed reported their main topic to be their personal lives and 52% experience blogging as a form of creative expression. Blogging has been touted as leading to greater self-knowledge and confidence in articulating thoughts and ideas (Blood, 2002). Extroverted people with robust social networks tend to use blogging as a way of strengthening relationships rather than seeking audiences of strangers (Stefanone & Jang, 2007).

**Online Identity Formation**

Much of the research conducted on adolescents and their Internet use focus on how their identity formation is influenced by this medium. There are unique characteristics about computer-mediated communication that may encourage identity exploration and the meeting of other developmental tasks. As boyd (2007b) has pointed out, it is impossible to “simply “be” online, one must make one’s presence visible through explicit and structured actions” (Articulated Participation section, para. 2). This requires identity to be written or performed each time one is online. This unique characteristic of having to “write [oneself] into being” (boyd, 2007b, Fakin’it: The Rise of Friendsters section, para. 1) when using CMC has been identified as a possible contributing factor to the postmodern “patchwork” identity (Kraus, 2000) comprised of different aspects that have been constructed for specific contexts. Multiplicity, or the
condition of having a mutable self-concept, has been conceptualized as potentially adaptive and healthy as long as the various aspects are interconnected (Cote, 1996; Doring, 2002; Turkle, 1995). The expression of identity makes up a large portion of online content. A 2007 review of research related to adolescent use of CMC found that the content of home pages “consist[ed] almost entirely of identity claims” (Miura & Yamashita, 2007, ¶ 2). These are defined as self-descriptions, and result in the use of the Internet as a “sort of stage” (Miura & Yamashita, ¶ 2).

The anonymous nature of Internet communication can encourage experimentation in different self-presentations. This is possible due to the absence of physical cues or any depiction of appearance, if so desired (McKenna & Bargh, 2000). This freedom from the personal characteristics from which first impressions are formed can facilitate trying different identities in order to compare responses. The compartmentalized and isolated nature of the different online communication methods (e.g., email, chat rooms, blogs, games) makes it easy for users to simultaneously present themselves with multiple personae (Turkle, 1995), and the norm of constantly updating blog entries and profile pages allows adolescents to constantly evolve and transform their online personalities (Doring, 2002). The presence of MUDs (Multi-User Domains) give adolescents and adults the opportunity to play games with unlimited numbers of other players from around the world, taking on various identities depending on the game (Turkle, 1995). For example, games like LegendMUD, ZombieMUD, and As The Wheel Waves, are all popular fantasy games where players can inhabit human or non-human forms. It is possible to experiment with being a different gender and personality, interacting with others for extended periods of time. Since self-presentation on the Internet is up to the
user, any kind of photograph or physical description could be used for a profile page or chat room introduction. This kind of experimentation has its dangers – adolescent girls in particular represent themselves as older than they are, usually so that they can meet older males (Lenhart & Madden, 2007b); pretending to be another friend is a way that adolescents can play pranks and bully one another (Gross, 2004; Shariff & Gouin, 2005). However, identity play has also been seen as part of the necessary self-exploration needed to eventually become more stable in one’s sense of self (Doring, 2002; Turkle, 1995). Recent research that has examined the motives for adolescent identity experiments shows that there are various reasons, depending on the context of the activity. For example, a 2005 study (Valkenburg, Schouten & Peter, 2005) found that 50% of 9 to 18 years olds had presented themselves in a misleading or false way, usually for social reasons such as facilitating new relationships, to compensate for discomfort or shyness, or to gauge the reactions their different identity garnered from others. Younger adolescents (aged 9 to 12) reported presenting false information significantly more often (73%) than middle adolescents (53%). The older adolescents, aged 15 to 18, reported experimenting the least, at 28%. Gross (2004) found that 51% of the 7th and 10th graders surveyed pretended to be someone or something they were not, at least occasionally; 19% of those adolescents had pretended to be the opposite gender, and most reported lying about their age to be older. The primary motivation for false presentation was reported as the desire to play a joke on a friend (48%), with privacy protection being a reason for 16%, and identity exploration being a motivator for only 11% of the sample. Gender has not been found to influence the type of false presentation, but it was found to influence the motivation to do so. Specifically, girls report using pretenses occasionally to
compensate for feeling socially uncomfortable more than boys when online (Valkenburg et al., 2005). Recent studies have found fewer gender difference in rates of computer use and communication style (Gross, 2004; Lenhart et al., 2005; Valkenburg et al., 2005; Valkenburg & Peter, 2007a).

In some ways, the contemporary concept of a mutable and multiple identity is being reflected in adolescent development and Internet use. During adolescence, there is a certain degree of instability in the self-structure and sense of self, as “fragmentation of self-representations during early adolescence is more the rule than the exception” (Harter, 1999, p. 69). Cognitive ability becomes more sophisticated during this stage as well, but the ability to think abstractly is a developmental process that occurs over time. This can lead to adolescent pre-occupation with what others think about them, which in turn can foster the desire to experiment with identity and observe the reactions of other users (Valkenburg et al., 2005). The egocentrism of adolescence can lead to feelings of an “imaginary audience” (Harter, 1999, p. 75) which can foster intense self-consciousness, but for adolescent SNS users or bloggers, this is made manifest online. As adolescents learn more about who they are, they learn more about with whom they like to socialize and what audience they are addressing as they express themselves online.

Cybersocializing

One of the primary motives for identity experimentation, that of meeting new people, has been shown to be one of the most frequently cited reasons adolescents give for why they spend time online (Gross, 2004; Lenhart & Madden, 2007b; Peter, Valkenburg & Schouten, 2005; Valkenburg & Peter, 2007a). Research has been conducted on the characteristics that predict frequency and quality of Internet use as well
as what the norms of cyberculture might be. However, strong trends are not in evidence as much of the findings tend to be contradictory in nature. Early investigations have tended to show negative effects of Internet use, which in part may have been confounded by the fact that there was still a certain degree of novelty to computers, fewer people in the users’ networks may have been accessible, and there may have been frustration in learning to navigate the Internet (Kraut, et al., 2002; Valkenburg & Peter, 2007b). For example, a heavily cited study conducted in 1995 and 1996 found that greater time spent online resulted in decreased contact with household members, increased loneliness and depression (Kraut, et al., 1998). Other research found that the nature of computer-mediated communication is shallow and not likely to foster close relationships (Moody, 2001; Parks & Floyd, 1996). The negative effects of Internet use are related to the way in which time spent online takes away from the more intimate face-to-face contact people have with friends and family (Kraut et al., 1998; Moody, 2001; Morgan & Cotton, 2003; Nie, Hillygus, & Erbring, 2002; Weiser, 2001). However, other research has shown that time spent online can facilitate offline friendships (Kraut et al., 2002; Morgan & Cotton, 2003; Valkenburg & Peter, 2007b). Recent research has not clarified how computer use may or may not contribute to adolescent wellbeing. A 2007 study of adolescent Internet users found that those who reported having supportive online friends to be the loneliest, despite the fact that having online friends was not related to how much time was spent online (Subrahmanyam & Lin, 2007).

Adolescents have been called the “defining users of the Internet” (Peter & Valkenburg, 2005, p. 424) as they spend the most time online and use CMC through e-mail, chat rooms, IM, and SNSs more than adults (Madden & Rainie, 2003). Research
conducted solely on adolescent populations and their cybersocial activity has primarily examined motivation for time spent online and type of activity. Rate of use studies typically examine some translation of the “rich-get-richer” versus social compensation hypotheses, where personality traits such extraversion and introversion are correlated with online behavior. A 2003 study of 104 private school students showed that there was a positive relationship between frequency of synchronous communication methods (e.g., chat, IM), and social status and skills (Heitner, 2003). However, the same study also revealed a negative relationship between time spent online (e.g., e-mail, Web browsing) and social skills, implying that those who socialize through online means do so as an extension of their offline social life, and that those whose social skills are somewhat deficient spend more time in individual online pursuits. A 2003 survey study of college undergraduates reflected these findings, with greater depression rates found in those who used the Internet primarily for solitary pursuits such as shopping or playing games than those who spent time communicating with others through email, chat rooms, or instant messaging (Morgan & Cotton, 2003). This is similar to other studies (Valkenburg & Peter, 2007a; Valkenburg & Peter, 2007b) that showed that increases in online communication increase the development of more online friendships and feelings of well-being. Some evidence, however, points to the formation of close Internet relationships as being more likely for girls with high levels of parental conflict and for boys with little parental communication (Wolak, Mitchell, & Finkelhor, 2003), prompting the question of whether or not cybersocializing can lead to alienation or actually be a symptom of it. A 2005 investigation found that introverts who use the Internet frequently realize greater social gains (e.g., making more online friendships, more self-disclosure) than those less
frequent users who attempt to compensate for lack of social skills with this medium (Peter, Valkenburg, & Schouten, 2005).

There is evidence that despite the anonymity and greater control online users enjoy, social norms from offline life prevail, perhaps due to the confines of this developmental stage. For example, race becomes more salient during adolescence, and this can prompt adolescents to strengthen their social ties to those of the same ethnic origin (Tatum, 1997). Evidence has been found that adolescents can be quick to identify their ethnicity in chat rooms where they enjoy full anonymity (Tynes, Reynolds, & Greenfield, 2004). Study authors found that the chance of being exposed to a racist remark in a 30-minute chat increased from 19% to 59%, depending upon whether or not the room was monitored. It seems that adolescents want to know the race of those with whom they interact, even if interactions remain in cyberspace. Gender has also been found to be a frequently listed identifier (Sunden, 2003) with greater anonymity being shown to contribute to greater self-stereotyping in college undergraduates (Postmes & Spears, 2002).

In addition to an increase in awareness of racial identity, the formulation of a sexual identity is an important developmental milestone. Sexual maturation is a large part of the social development that occurs during this life stage since adolescents typically use romantic relationships as the context for exploring sexual behavior (Auslander, Rosenthal, & Blythe, 2006). One can expect to encounter a sexual comment every 4 minutes in teen chat rooms (Bremer & Rauch, 1998, as cited in Subrahmanyam, Greenfield, & Tynes, 2004). Adolescents express their sexuality by requesting private chats with members of the opposite sex (Subrahmanyam et al., 2004) and by their online
self-presentations. This can occur through text, but often it is through photographs posted to SNS profile pages or blogs. More studies show that traditional gender roles are represented visually, with women and girls choosing pastel colors to decorate their pages, include more personal information, and post more sexual pictures, using less complex technology than their male counterparts (Miller & Arnold, 2000; Miller & Arnold, 2001; Pierce, 2007). Men and boys tend to use more sophisticated technology, use fewer words to describe themselves, and focus their descriptions on their status and computer expertise.

As with other mediums, it is important to remain mindful of the fact that the Internet itself is not to be considered a main effect or cause of specific behavior or affect. Rather, it is our social interactions and the formation of our personal identities that may be experienced differently as a result of the context within which they are performed (McKenna & Bargh, 2000). After all, one is interacting with not just the medium, but the other people who are using the medium whenever one is engaged in CMC (Subrahmanyam et al., 2004). As well, it is the particular motive for using the Internet’s many forms of communication that will influence the effects that activity has on adolescents (Weiser, 2001).

**Computer Use and Social Development**

Much has been written in the popular press about parental concerns about the effects of computers and other social technology on adolescents. There are assumptions that frequent computer use can result in the lack of social skill and language development and troubling physical problems such as repetitive stress injuries in wrists and hands, deafness, and obesity. Empirical investigation into such assumptions has yielded mixed
results. For example, a relationship has been found to exist between loneliness, lack of social support, and Internet use among adolescents, but whether or not these variables result in, cause, or moderate Internet use is unclear (Subrahmanyam & Lin, 2007). There is evidence that adolescents who suffer from social anxiety or are otherwise lacking in social skills to begin with use computer-mediated communication to compensate for their lack of comfort with face-to-face encounters (Valkenburg & Schouten, 2005; Valkenburg & Peter, 2007b). Having an alternative outlet for social interaction has led such adolescents to consider cybersocializing as an important means for generating intimacy and self-disclosure, which in turn fosters increased time online (Valkenburg & Peter, 2007b). However, there is evidence that adolescents in general are engaging in less frequent corporeal conversation due to their heavy use of relatively depersonalized modes of communication, such as email, instant messaging, text messaging on cellular phones, and through social network sites (Subrahmanyam & Greenfield, 2008). While all of these technologically-oriented modes of communication create more opportunities to communicate with peers, it is unclear if the quality of such interaction can help to facilitate the building of social skills. Significant conflict over parental control of adolescents’ use of such technology has been documented, leading one report to indicate that technological advances have led to “enhanced peer group relations at [the] possible expense of family relations” (Subrahmanyam & Greenfield, 2008, p. 140). The fact that many adolescents possess more sophisticated knowledge of how to use technology than their parents has granted them more autonomy and has perhaps allowed for a decrease in submission to parental authority (Subrahmanyam, Kraut, Greenfield & Gross, 2000).
Other social behavior has come under scrutiny as a result of computer and video games. The degree to which regular game playing contributes to the failure to develop socially and the tendency to display aggressive behavior has been studied consistently since video games became popular in the late 1970s. Recent reviews of past research have provided evidence that the more children and adolescents play games with violent content, the more they experience aggressive thoughts, feelings, and behaviors (Funk, 2008; Subrahmanyam et al., 2000). Some research suggests that the most important variable in the relationship between violent games and aggressive behavior is the adolescent’s preference for games with violent content (Subrahmanyam et al., 2000). This suggests a possible pre-existing propensity towards reactive or aggressive behavior rather than the influence of gaming. Statistics on excessive gaming that impedes socializing with friends and family or the completion of homework or other obligations is not definitive. Rates of excessive use have been found to vary in gaming populations, from 7% to 29% of players. This activity has become largely ubiquitous – all respondents of a survey of 1162 college students reported having played computer games at some time (Jones, 2003) – but there is no evidence that the social skills of regular gamers are different from those who rarely play (Phillips, Rolls, Rouse & Griffiths, 1995).

Investigations into whether or not the reliance on social technology is leading to a lack of appropriate language development have also yielded mixed results. Linguists in Canada have found that “teen language” used for text and instant messaging is flexible and fluid, incorporating aspects of informal and formal speech and firmly rooted in our existing language (Tagliamonte & Denis, 2008, p. 3). A recent study from the United Kingdom attributes the fact that adolescents possess half the vocabulary as adults in part
to the overuse of technology (Miller, 2006). However, no specific evidence of a direct relationship between technology and a dearth of vocabulary was presented, and may reflect the researcher’s point of view more than actual findings.

Anecdotal evidence for physical problems resulting from computer use abound but also without a clear empirical foundation. Physical therapists have published guidelines for proper computer adjustments for youth to avoid carpal tunnel syndrome and other injuries (“Kids May Face Injury,” 2001). Problems such as “Nintenditis,” or tendonitis due to excessive gaming, have also been identified (Anliker, n.d.), along with potential optometric issues such as blurred vision, tension headaches, and eye fatigue (“Typing Injury FAQs,” n.d.). However, some evidence suggests that carpal tunnel syndrome is not a repetitive stress injury at all (“Computer Deleted Cause,” 2005), and none of the possible difficulties arising from extended periods of time spent using a computer are shown to be precursors to developmental delays or degradation of any kind.

It seems probable that spending a disproportionate amount of time on any one activity will lead to some negative impact on developmental processes (Subrahmanyam et al., 2000). Parental oversight and involvement can prevent the consequences of extreme or harmful online behavior as with other aspects of adolescents’ lifestyles. Being cognizant of the elements of adolescent development as well as the nuances of new technology will enable parents to make informed decisions about how and when to guide online activities.

Summary

This chapter has provided a general overview of empirically supported conceptions of adolescent social and identity development and the effects of computer
use on adolescents. An explanation of the eco-cultural framework within which this study is conducted has been included as well. While predominant theorists and models have been described and current changes in how these are now interpreted have been included, it has also been noted that gender, race and ethnicity, socioeconomic status, and location can influence adolescents’ identity development, socializing practices, and morality.

Despite the maps that traditional models of development have provided to explicate the process of maturation, limitations do exist. Traditional theorists have applied Caucasian middle-class norms to all populations, despite the fact that those standards are not necessarily relevant for people from other cultures (Chapman & Nichols, 1976; Montemayor, 2000). This awareness has served to expand theories of development and the notion of what is considered normal. Rather than maintain that development follows a fixed pattern for all people, contemporary theories incorporate a variety of developmental paths, depending upon the environmental and cultural contexts within which the process is occurring.

Changes in technology and the extent to which it is an embedded aspect of contemporary life has prompted a growing body of research exploring how adolescents are affected by and how they in turn affect cyberspace. An eco-cultural framework that takes into account the overall environment within which adolescents mature, as well as their need to be active participants within it in order to mature, is an appropriate lens with which to examine the nature of adolescent cybersocializing. Now that an accurate context has been provided for such an inquiry, the exact methods used to conduct the inquiry will follow.
CHAPTER III
METHODOLOGICAL FRAMEWORK

The intent of this study is to examine the ways in which adolescents express themselves through blogging on social network sites within the context of an eco-cultural model of development. Specifically, this is an exploration into the lived experience of youth who chronicle their thoughts and feelings on blogs, and how that may be influencing and reflecting their social and identity development. In order to effectively understand this phenomenon, which has garnered much media attention but about which little actual analysis has been completed (boyd, 2007c; Murero, 2001), a qualitative design is necessary (Berg, 2004; Shank & Brown, 2007). Considering the research questions and the inductive processes they require necessitates a study design, data collection and analysis process that is hypothesis generating (Morse, Niehaus & Wilkins, 2006) and that 'contextualizes the phenomena in its cultural milieu' (Glesne, 2006, p. 4). Completed within the framework of qualitative content analysis, data collection draws from computer-driven marketing research methods; data analysis reflects goals and practices from the ethnographic tradition of conducting inferential analyses on observed social phenomena (Lincoln & Guba, 1985).

Research Design

Qualitative Content Analysis

Content analysis is a means of reducing large amounts of text in order to highlight certain characteristics. It refers to multiple approaches which fall at all points along the
qualitative-quantitative continuum, from "impressionistic, intuitive, interpretive analysis to systematic, strict textual analysis (Rosengren, 1981, cited in Hsieh & Shannon, 2005, p. 1277). The first known use of content analysis occurred in the 1700s by religious leaders concerned about possible heretical writings contained within newspapers (Bauer, 2000). Similarly, those concerned with the lack of morality within the emerging "yellow press" of the 1800s also used this means of exploration (Bauer, 2000). In modern times, Sigmund Freud's method of dream analysis falls within this category (Mayring, 2000) as does the propaganda analysis conducted during World War II (Krippendorff, 1980). Sociologists began using content analysis to make inferences about the social context within which texts were created in the late 1920s (Krippendorff, 1980).

The type of content analysis used for the purposes of this study is known as qualitative content analysis (QCA). It can be defined as "an approach of empirical, methodological controlled analysis of texts within their context of communication, following content analytical rules and step by step models, without rash quantification" (Mayring, 2000, ¶ 5). The focus of QCA is on the contextual meaning of the material; the subjective interpretation of the material is obtained by way of coding and categorizing specific units of meaning, which leads to the identification of patterns and themes (Hsieh & Shannon, 2005). Since the research question asks what adolescent blogs can reveal about social and identity development, an analysis of the actual content is appropriate. Since the blog content is to be reviewed within the context of eco-cultural models of development, the analysis requires interpretation of the text rather than a quantification of its characteristics. Thus, a greater understanding of the phenomena of adolescent blogging can be obtained using a qualitative assessment of the material. A detailed
discussion of the coding and categorization process, as well as the themes and patterns identified, follows in the Data Analysis section.

_Ethnomethodology_

The QCA conducted for the study draws on the ethnographic tradition. Ethnographic research is derived from the sociological school of thought known as symbolic interactionism, which maintains a postmodern acknowledgment of meaning making as being dependent upon both intrapersonal and interpersonal processes. This methodological framework is reflective of both phenomenological and social constructionist stances. For example, in Heideggerian terms, consensual reality is comprised of Being and [italics added] Being-in-the-World (Nelson & Poulin, 1997, p. 160). Within the interactionist school of thought, behavior is conceptualized as resulting from subjective perception and interpretation (Berg, 2007). Behavior is also considered to be made up of learned responses that are based upon interpersonal communication. The concepts reflected in symbolic interactionism provide a foundation upon which the theoretical framework for this study was composed. Social and identity development require cognitive abilities; the eco-cultural orientation applied in this study includes the notion that knowledge is collectively constructed. This concept is derived from Vygotsky’s concept of “mind” as being formed by an individual's relationship with others (Cole & Wertsch, as cited in Broderick & Blewitt, 2003). Within this perspective, social interaction can be examined within a cultural context and can be considered to be a product of collective perceptions.

Ethnography, as a type of interactionist inquiry, mandates that the researcher must “first discover what people actually do” (LeCompte & Schensul, 1999, p. 1) before the
interpretation process has begun in order to limit researcher assumptions and bias. Since social network sites constitute a culture of their own with specific behavior patterns, ways of communicating, and social norms, a methodology that is grounded in interactionism is appropriate. Ethnographic research is characterized by a two-step process of data analysis and interpretation. It seeks to meet the phenomenological goal of describing lived experience and the qualitative goal of generating contextually grounded inductive hypotheses and thematic interpretations that reflect the constructed reality of the participants and the researcher. The hypotheses generated by this inquiry will be valuable for counselors as it will ground their interventions in a specific social context. In order to guard against the influence of researcher assumptions, triangulation of methods and bracketing of researcher bias will be employed during data collection and analysis.

**Ethics in Research Design**

Since the explosion of Internet popularity, much has been written about the importance of conceptualizing new ethical guidelines that reflect the realities of this new medium. The extent to which researchers have respected the privacy and well-being of those using the Internet is under dispute, with evidence that there have actually been few violations (Berg, 2007) to those arguing for more restrictive guidelines to prevent the widespread failure to obtain informed consent of participants (King, 1996). The nature of the confusion lies in the question of whether or not cyberspace is a public or private place, since aspects of it embody the characteristics of both (Jones, 1994).

Several researchers have offered factors to take into account when designing studies so that participants’ or subjects’ dignity and safety will be maintained. A review of the literature reveals consistent principles related to electronic research practice. Of
primary importance is to establish whether or not the on-line forum or site one is using for research purposes has more public than private characteristics (Eysenback & Till, 2001; Waskul & Douglas, 1996). This can be done by assessing the size of the forum itself. An online support group of survivors of pancreatic cancer is smaller in size than a forum for discussing NASCAR drivers and team information, and it is reasonable to assume that participants of such groups will have corresponding expectations of the size of the group with which they are communicating. MySpace is known as a worldwide forum, and it is popular practice among adolescent users to attempt to collect as many ‘friends’ as possible (boyd, 2006b). Therefore, it is reasonable to assume that users of MySpace understand that they are potentially ‘communicating within a worldwide forum’ (Waskul & Douglas, 1996, p. 132).

A second important distinction to make in determining ethical practice is whether or not the research to be conducted is active or passive (Eysenback & Till, 2001). Active research requires the investigator to contact participants and request their involvement in a focus group or survey, etc. It also can characterize research where the investigator is participating in the online activity, usually without identifying himself or herself as someone who is conducting research. Passive research does not require direct involvement of the investigator, such as the examination of archival material. The blog content posted on MySpace is understood to be maintained indefinitely in archival fashion. In fact, it is the archival nature of the postings that drive some participants to write as much as they do- it becomes a way for them to preserve their experience and return at points in the future to review the descriptions of their lives (Boyd, 2007a; Nussbaum, 2007). Most internal review boards (IRBs) and ethical guidelines in medicine,
education, and psychology allow passive research conducted electronically as long as all identifying information is removed at the earliest stage of data collection possible (Berg, 2007; Eysenback & Till, 2001; Jones, 1994).

The third requirement for conducting ethical research is to protect the confidentiality of the participants in much the same way as traditional research (Berg, 2007). When conducting passive electronic research, care must be taken to preserve the total anonymity of sources of data, since search engines can sometimes locate screen identifiers from direct quotes (King, 1996). Despite the fact that SNS monikers rarely reference the real name of the user, powerful search engines can sometimes locate screen names from direct quotes, which could then reveal more personal information (Eysenback & Till, 2001). Therefore, identifying characteristics must be removed from the data, and direct quotes that could reveal the screen name of participants must be tested before they are used.

Preserving confidentiality with ever more powerful search engines presents somewhat of a challenge to those using phenomenological or ethnographic research methods. It is common practice for those conducting qualitative research to rely on “rich description” to support the subjective interpretations and to demonstrate internal validity/credibility of the data. Direct quotes taken from the interviews of participants are a staple in the presentation of such research. Within the context of qualitative content analysis conducted on archival material, repeating direct quotes could possibly reveal the screen name and therefore MySpace identity of the blogger. In order to preserve the confidentiality of the bloggers whose content was used in the study, the following precautions were taken: The search engine Google (considered to be the most innovative
and powerful search engine) was used to trace bloggers using directly quoted portions of text, and only if the search was unsuccessful was the quotation used in the reporting of the results. No identifying information, such as names, was included. The study received approval from Duquesne University’s Office of Research IRB-Human Subjects on July 18, 2007, protocol 07-76, prior to any action on the researcher’s part towards the collection of data.

Data Collection

The process of data collection made use of practices originally created in market analysis and business fields. Data mining, "the automated extraction of hidden predictive information from databases” (Thearling, n.d.), has been used by field marketers who have created software and computer programs to search vast amounts of internet communications for specific text. Also known as “web crawling,” this process has been used to inform businesses of public opinion about, interest in, and use of certain products, much like focus groups have done in the past. The information collected this way also helps businesses to predict market trends and uncover subtle patterns in consumer behavior (Thearling, n.d.). The computer program that was used to collect the study data was based upon those created by Internet marketing companies such as Blogpulse, Amatomu, and IceRocket, which specialized in searching blog text for marketing purposes. These companies use software that is designed to "derive market intelligence from online discussion" (Glance, Hurst, Nigam, Siegler, Stockton, & Tomokiyo, T., 2005, p. 1). Existing blogs are searched for trends, frequently occurring words or references, and product names, making it a simple way for marketers to get a sense of what is popular and about what topics people are writing. Search engines can only have
access to information that has been "indexed." Web site designers or companies must give permission for the material presented to be accessible. Certain parts of web sites can be demarcated as private, and others can be indexed so as to be available for the public to find by way of links from other web sites and general searches.

There is a rich tradition of software and data sharing in the Internet community that enables such programming to be accessible and applied to this study. In the 1980s software was produced largely as a joint effort between researchers working in academic and corporate settings and was not considered to be a commercial product (Vallee, 2003). This practice has continued in different forms since that time, including the creation of the free operating system Linux, made available in 1992. Currently many Web servers operate with free software derived from a number of different accessible systems, known as LAMP systems (Wikipedia, 2007). Free data mining software is readily available (a Google search for "free data mining software" resulted in 2,640,000 hits), designed for research, education, and marketing purposes.

Parameters of Data Collected

Since the primary research question of the study is concerned with what exactly adolescents are "talking" about while using computer mediated communication, a content analysis was an appropriate means of exploration. In order to accomplish the hypotheses-generating goal of qualitative research, one is expected to engage in a recursive method of collecting and processing data in incremental stages. This allows the researcher to refine themes and patterns during analysis (Lincoln & Guba, 1985). Naturalist inquiry dictates that the researcher must keep analyzing data until no new themes emerge, called by Glaser & Strauss (1967) as achieving saturation.
Reviewing qualitative research method texts and empirical work done within the context of cyber communication enabled the researcher to identify characteristics necessary for inclusion. In order to maintain a coherent and illuminating corpus, only text-based blogs were included; blogs that used predominantly video footage and pictures were excluded. The number of adolescents who house their blogs on MySpace has diminished since 2006, when blog-creating software became accessible and popular. However, those who do maintain blogs on MySpace represent the average adolescent, since the social network site is used by an overwhelming majority of those aged 14 to 17 (Lenhart & Madden, 2007b). Requiring blogs to have at least three postings per calendar year excluded those who had primarily experimented with the medium. An estimated target number of 30 bloggers was chosen, in order to provide enough material to enhance trustworthiness (or in quantitative terms, reliability and validity) of data by meeting the condition of sample sufficiency (Morse, Barrett, Mayan, Olson & Spiers, 2002). This number is based on the suggestion that 30 to 50 interviews are necessary to obtain sufficient ethnographic information (Morse, 1994, as cited in Denzin & Lincoln, 1994). Data was analyzed in blocks of ten in order to maintain an iterative and reflective process and enhance the reliability and validity of the analysis (Morse et al, 2002). Data reduction, coding, categorizing, and theme building were completed and results reviewed before the next block of blogs was selected from the random list of appropriate blogs. This process is discussed further in the Data Analysis section.

Sample.

Parameters set for the study sample included high school age adolescents, 14 to 17, who have active MySpace accounts and who maintain blogs in addition to profile
Material posted on the Internet is considered to be public, and therefore is accessible to anyone who chooses to peruse it. The safety precautions put in place by MySpace creators decreased the number of accessible adolescents, since those under the age of 16 are required to maintain private accounts, and it is impossible for those over age 18 to have access to profiles of those under 18. However, as has been shown in recent research, less than half of adolescents on MySpace actually keep their profiles private (Hinduja & Patchin, in press). While it would be possible for profiles to be found and viewed as a network member, it was more expedient to use web search programming to locate potential blog content. This was possible as a result of a process of cutting and pasting text from web pages (called code scraping). The code scraping process was used to identify and accumulate particular units or words. Once these profiles had been found, further filtering occurred in regards to whether or not age was listed and least three blog entries had been posted for the year.

The software was run for 24 hours on one occasion, immediately after the end of the identified study year of 2007. This resulted in 383 bloggers who had the potential to be chosen for analysis. The data collection scheme randomly selected MySpace users with blog entries, judged them based on the predetermined criteria (in this case age and year of blog postings), and then kept the link to users’ profile pages or discarded them. Since this was done randomly, the sample collected was already ordered in a random fashion. Blogs were selected consecutively from the random list and examined by the researcher to ensure that they met inclusion criteria. If a blog was excluded because it did not meet selection criteria, the next blog on the random list was chosen. The gender, ethnicity (if stated), and state of origin of each blogger was taken from their profile page.
and matched with their blog entries. These demographic details were the only personal information recorded in order to protect the bloggers' identities.

**Trustworthiness of Data**

Qualitative inquiry is characterized by the researcher acting as the instrument of data collection and analysis (Maggs-Rapport, 2000). The implication of such a stance is that there is no possibility of the researcher's perspective and individual experience of reality being divorced from the findings and interpretation of the research conducted (Peshkin, 1993). The underlying assumption of the subjective nature of reality compromises traditional quantitative notions of reliability and validity (Mays & Pope, 2000). Instead, qualitative researchers have identified equivalent practices to ensure scientific rigor in their work. Lincoln and Guba (1985) used the concept of *trustworthiness* and defined it as being a result of credibility, transferability, dependability, and confirmability of data. There exists some controversy over the degree to which general concepts of reliability and validity can be applied to qualitative research (Maggs-Rapport, 2001; Mays & Pope, 2000; Morse et al, 2006; Parker, 2004; Wolcott, 1994). Miles and Huberman (1994) have provided guidelines for addressing these issues from a combined perspective, naming objectivity as the equivalent of confirmability, pairing internal validity with credibility, external validity with transferability, and reliability with dependability (pp. 278-279). These concepts are also similar to the requirements for maintaining "theoretical sensitivity" (Glaser & Strauss, 1967), which enables the researcher to identify valid patterns and themes (Nelson & Poulin, 1997).

For the purposes of this study, data collected will be measured using qualitative standards. Terms designated for qualitative inquiry will be used for consistency.
Confirmability.

While the assumptions embedded in qualitative research eschew the possibility of data being completely unbiased, there are practices designed to reduce the extent to which findings are derived from the researchers own perspective. Bracketing researcher assumptions, beliefs, and expectations in order to set them aside for the data analysis process is a commonly used strategy for getting "back to the things themselves" (Husserl, as cited in van Manen, 1982, p. 296), or as close to actual phenomena as possible. Reviewing relevant literature, reviewing one's own professional and personal experiences with the phenomena being studied, and keeping an ongoing journal recording the reactions to the data as it is collected, are all methods that can assist in this process (Nelson & Poulin, 1997).

Credibility.

Ensuring that the internal validity of the research is acceptable entails what can be known as verification (Morse et al., 2002), or being as certain as possible that the information one is collecting is accurately reflecting the concepts that have been defined by the research question(s). This is accomplished by specific practices as well as the attitude held by the researcher during the recursive data collection and analysis process. The more adaptable and responsive the researcher can remain during data collection and analysis, the more credible the results will be, since an open stance allows one to drop fruitless suppositions and follow emerging patterns without being constricted by bias (Morse et al., 2002). It is also necessary for the researcher to bracket assumptions related not only to blog content but to the language used by bloggers, since there are, in this case, two subcultures contributing terms to the content, adolescent culture and Internet culture.
These contexts must be taken into account and efforts must be made to explore the popular use of slang terms and references that may appear in the text.

Due to the assumption inherent in naturalist inquiry that reality is not absolute but defined by one’s perception, there is extra care taken by qualitative researchers to define concepts and understand the world view as expressed by participants. This is an essential element of qualitative research and contributes to the development of strong internal reliability. Another strength that enhances credibility is the need for the researcher to engage in persistent observation, which requires prolonged engagement in the material (Lincoln & Guba, 1985). Data analysis methods conducted within a qualitative context demand the researcher’s intense and deep involvement in the process to protect the validity of the study results.

Transferability.

The degree to which study findings can be generalized or support the existence of similar phenomena in other groups or contexts speaks of the external validity of the research or the transferability of the findings (Graneheim & Lundman, 2004). Qualitative researchers safeguard transferability by being as transparent as possible in acknowledging the culture and sample characteristics within which they are working as well as their data collection and analysis process. This enables others to track the methodology and theoretical assumptions underlying the research and informing the findings (Graneheim & Lundman, 2004).

Dependability.

How dependable or consistent study findings are reflects the reliability of the study. In qualitative analysis it is difficult to expect the same degree of replicability as
found in traditional quantitative research. Individual context and the subjective nature of reality ensure that some variety will be impossible to avoid. However, the coding and categorizing process used in qualitative analysis will reveal consistency in the common themes and patterns that emerge if results are dependable, despite the fact that the process is an evolutionary one (Graneheim & Lundman, 2004). The degree to which results are consistent with related material in the literature can also support the reliability of the data.

_Theoretical and contextual sensitivity._

In order to be able to accurately analyze the data collected, the researcher must be thoroughly acquainted with the data as well as the larger context within which the phenomenon under study is occurring. This enables the researcher to maintain descriptive and interpretive validity (Maxwell, 1992/2002) and anchors the researcher in theoretical thinking for the duration of the analytic process (Morse et al., 2002). Sensitivity is accomplished by thinking in "macro-micro perspectives, inching forward without making cognitive leaps, constantly checking and rechecking, and building a solid foundation" (Morse et al., 2002, p. 13) for the duration of the interpretation process. Using relevant literature and personal experience to inform the analytic process also contributes to contextual sensitivity. These two sources provide evidence that allow threats to validity to be scrutinized effectively (Maxwell, 1992/2002). Along with the importance of anchoring the analysis in the context of the theory around which the study is oriented, being sensitive to the particulars of cyber-culture is crucial to valid interpretation of the study results. Maintaining consistent awareness of the "normative, ideological, historical, linguistic and socioeconomic influences on the beliefs, objectives, expectations, and talk of all participants" and of the researcher is necessary (Yardley, 2000, p. 220).
Due to the fact that the Internet's potential impact has been examined from anthropological, sociological, technical, psychological, and educational perspectives, a broad and comprehensive review of the literature was required and was conducted for the extent of the research process. Popular media sources, such as the *New York Times*, and computer-related publications such as *Wired* were reviewed regularly as well in order to expand the researcher's perspective to include current issues and trends. Ethnographic, bioecological, and sociological perspectives were sought after with the most frequency, since the inquiry was bound by an eco-cultural context. This continuous review of the literature also helped to ensure the relevance of the research question.

The researcher's experience as a counselor working in high school and adolescent substance abuse treatment environments provided theoretical grounding that was informed by an understanding of adolescent development and culture. The researcher was introduced to MySpace profiles and blogs by the students who frequented the school counseling office, and was able to discuss the phenomenon casually with the students who were offering to provide insight and narratives of their own experience. The researcher was able to ask adolescents receiving chemical dependency treatment to share their own practices and perspectives in order to corroborate the information received at the high school. These clients offered translations of slang terms and discussed their understanding of the intentionality behind some of the blog content to which they were exposed, helping to anchor the researcher's inquiry in the context of the lived experience of adolescents. With issues of trustworthiness and sensitivity in mind, actual data analysis became possible.
Data Analysis

The unit of analysis was determined to be one blog entry. Therefore, all of the blog material archived by each individual blogger over the course of 2007 was analyzed. Units of analysis were purposely chosen to consist of one complete entry rather than words or sentences within each entry, in order to lessen the possibility of interpreting the meaning of the entries inaccurately and lessen the credibility of the findings (Bauer, 2000).

A qualitative content analysis of the blogs was conducted in order to explore what subjects adolescent bloggers write about and how it may or may not reflect the social and identity development that is expected to occur during the high school years. Content analysis undertaken within a qualitative context is characterized by an inductive process of hypotheses creation that is fed by increasingly higher-ordered themes and categories. This is also a recursive process, allowing for the coding and categorization of data while it is being collected, so that the codes can become more precise as more data is reviewed. In keeping with the subjective nature of naturalist inquiry, there is no standardized way to reduce and construct meaning from the data. The analysis for this study was conducted using procedures derived from thematic network coding (Attride-Stirling, 2001), "transcendental realism" inspired analysis (Miles & Huberman, 1994, p. 4), and conventional qualitative content analysis (Hsieh & Shannon, 2005; Tesch, 1990).

The analysis began by the reading and re-reading of each blog entry several times in order to gain an overall sense of the material, known as achieving immersion (Tesch, 1990). A coding framework was tentatively created that reflected the theoretical orientation and research questions of the study, using broad social and identity
development categories. Next, the blog entries were examined and either classified under the pre-existing categories or set aside as in appropriate. There were very few entries that did not readily fall under the two main developmental themes. Subsequent readings of the data resulted in a refined set of sub-codes that encapsulated the different aspects of socializing and self-expression. A third category was created to capture communication that was concerned with everyday work, school, or hobby-related events. The data was further condensed by analyzing the characteristics of the entries themselves rather than the content, such as the form the communication was in, the situations the entries described, and the person to whom the entries were directed. This resulted in two specific types of codes, developmentally themed codes and content-oriented codes, with several sub-codes for each.

Through the process of data analysis, an understanding emerged of what adolescents typically communicate and to whom. The relationship between adolescent blogging behavior and eco-cultural developmental processes was clarified as well. The ways in which the researcher managed bias, triangulated the data, and maintained trustworthiness are discussed in the following chapter, along with the specific results of the study.
CHAPTER IV

FINDINGS

Introduction

The purpose of the study was to illuminate what happens on social network sites, what is being communicated by the adolescents who use the medium regularly, and what this may reflect about the nature of adolescent social and identity development. Social network sites, as a type of computer mediated communication, have the potential to both shape and be shaped by adolescent developmental needs and achievements. Therefore, a model that reflects the importance of the environment within which development is taking place is particularly appropriate. An eco-cultural developmental perspective allows for the examination of such proximal influences as degree of parental oversight of computer use, to distal influences such as the spread of technology to many aspects of U.S. life. Cultural and environmental factors also shape the process of cognitive maturation, which is the essential prerequisite for the development reviewed in this study. Using an eco-cultural approach allows this investigation to delve into the content of adolescent blogs with a broad and many-layered perspective.

The nature of qualitative inquiry of the kind used for this study is inductive and recursive, allowing for a refining process of increasingly higher-ordered coding and connecting themes and categories. Coding and data collection occur simultaneously, allowing for new material to be collected until no new themes emerge. Qualitative content analysis adopts this method, and also provides some degree of quantification of the text. Therefore, this analysis will have summative as well as interpretive elements.
within the confines of the theoretical framework. Content analysis can thus be considered “as an inquiry into symbolic meaning of messages…that do not have a single meaning” (Krippendorff, 1980, p. 22).

A data mining process that allowed parameters to be set for age, year, and country was used to gather the data for the study. This resulted in a random list of links to 383 blogs that were written by adolescents between the ages of 14 and 17 in the year 2007. Thirty of the first bloggers whose profiles were not set on private and met inclusion criteria were selected for analysis, resulting in a total of 138 blog entries of various lengths. The subsequent analysis will be presented according to the main thematic categories within which the coded material was organized, as well as the specific research questions driving the study.

Sample Characteristics

The 30 bloggers examined in the study were geographically distributed across the U.S., with the Eastern states being slightly more represented. Five bloggers were from the Midwest, 9 from the West, 1 from Alaska, and 12 from the East. The state with the most bloggers in the sample was New Jersey, with 4. Only one blogger identified her city of origin; the other 29 bloggers only listed their state of residence. There was a preponderance of females, with 26 bloggers of the 30 studied identifying as such. The data mining process did not result in many bloggers in the lower age range, and in fact no 14 or 15 year olds were represented in the final 30 used for the study. This suggests that there is compliance with the MySpace rule of keeping profiles of youth under 16 private. The most frequently occurring age for the bloggers was 17 (90%), followed by 16 (27%). Seventeen out of the 30 bloggers stated their ethnicity on their profile pages. Of those, 2
identified as Latina and 15 as Caucasian. Three out of the four males identified as Caucasian, while the remaining male in the sample did not disclose his ethnicity. No other ethnicities were identified. Table 1 provides a summary of the demographic characteristics of the sample.
Table 1

Demographics of Sample

<table>
<thead>
<tr>
<th>Gender</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>26</td>
<td>87</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>13</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>8</td>
<td>26.67</td>
</tr>
<tr>
<td>17</td>
<td>22</td>
<td>73.33</td>
</tr>
</tbody>
</table>

Ethnicity: out of 17 who stated ethnicity in profile (3 males)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>15</td>
<td>388.24</td>
</tr>
<tr>
<td>Latino/a</td>
<td>2</td>
<td>11.76</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The rejection rate for blogs that could be used for the study was 46%, due to several factors. For some, the age of the blogger had changed (as clarified on the blogger’s profile page) from the time of data collection to analysis, rendering them ineligible. For others, lack of access (site set on ‘private’), or the extensive use of photographs or video rather than written material, necessitated exclusion from the study. A total of 44 blogs were reviewed and judged for inclusion; 30 met criteria. Blogs were downloaded and coded in blocks of ten as part of the code refinement process. Table 2 lists average blog characteristics such as length of blog entry and number of words. Average number of comments per blog and kudos per blog are also listed. Blog readers have the option of replying to blog entries in two ways, by clicking on a comment link or a kudos link. Both of them allow a message to be posted that appears under the entry once the comment or kudos link has been selected. All of the messages are listed in chronological order, with the most recent being first.
Table 2

Blog Characteristics

Sample Size: 30 Bloggers  138 Blog Entries

<table>
<thead>
<tr>
<th>Means</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Blog Entries per Blogger</td>
<td>4.6</td>
<td>-</td>
</tr>
<tr>
<td>Length of Blog Entry</td>
<td>284 words</td>
<td>-</td>
</tr>
<tr>
<td>Number of Comments per Blog</td>
<td>2.3</td>
<td>-</td>
</tr>
<tr>
<td>Number of Kudos per Blog</td>
<td>2.5</td>
<td>-</td>
</tr>
<tr>
<td>Reprinted Material</td>
<td>31</td>
<td>22.46</td>
</tr>
<tr>
<td>Original Poems</td>
<td>24</td>
<td>17.39</td>
</tr>
</tbody>
</table>

Content Codes

Data analysis was separated into two distinct categories, content-related codes and thematic codes. The content codes organized blog characteristics in terms of who the blogger intended as his or her audience (IA), what method of communication was used by the blogger (COMM), to whom the blog content was being directed (SUB), and about what the blogger was writing (SIT). Each code housed a number of subcodes, which are summarized in Tables 3 - 6. Code definitions are listed in table format in Appendix A.

The overwhelming number of blogs were written with no clear audience designation (84%). A small percentage were written specifically to friends (9%) or to an
unspecified individual, usually referred to as “you” (4%). Only 11 were written to a romantic interest such as boyfriend or girlfriend.

Table 3

*Frequency of Content –Related Codes*

<table>
<thead>
<tr>
<th>Code: Intended Audience</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Family</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td>Friends</td>
<td>13</td>
<td>9.4</td>
</tr>
<tr>
<td>Romantic Interest</td>
<td>11</td>
<td>7.97</td>
</tr>
<tr>
<td>Unspecified Others</td>
<td>116</td>
<td>84.06</td>
</tr>
<tr>
<td>Unspecified Individual</td>
<td>6</td>
<td>4.35</td>
</tr>
</tbody>
</table>
The methods of communication used by bloggers varied, with the majority being simple collections of statements that did not tell a story but were logical in their progression. Thoughts on a particular topic could fall under this category, such as this blogger who is expressing her conception of love:

love… no longer means marriage.

Marriage means whoever will make that commitment.

The man or women that you can tolerate for the rest of your life.

Commitment means love. Not in the literal sense.

20 years of marriage never really grows into true love.

But familiarity… (Blogger 7, female, aged 17)

Statements could also be used in seemingly random sentences that did not refer to one another:

No more backspaces. Obviously fate exists for a reason.

Forty dollars is forty dollars. I’d rather be with my mother.

So sick of health care. The Squid and the Whale

My aggression comes from you. Denison was beautiful.

Bill Murray is a beautiful improv-er… (Blogger 1, female, aged 17)

Finally, statements could also be comprised of instructions for a drinking game, or simple descriptions of how the blogger was feeling that day.

Another category that comprised 12% of the total number of blog entries was labeled *Free Verse*. This style is characterized by poem-like verse that does not follow any structure or meter. A typical free verse entry is written in short sentences and centered on the page like a poem:
Typing…

Missing you more people than you know.

Head pounding.

You know why.

Its killing me.

Laying in my bed.

Just wondering.

The phone rings.

Put on a smile now… (Blogger 7, female, aged 17)

A third category, labeled List, consisted of a numbered set of feelings or thoughts about different people or things. These lists often were organized similarly to the following example:

1. I hate you and yet I love you. You make me sick and then you make me happy. Your [sic] a liar and a cheat, you feel sorry for yourself and drag people down with you...

2. Why is it that every time we get close you pull away, you try talking [to] me and then five minutes later tell me to get our of your life… (Blogger 21, Female, 16; time changed for privacy protection)

The other remaining methods of communication were narratives that told a story about an event, poems, reprinted material such as jokes and stories circulated on the Internet, and questionnaires to be filled out by readers of the blog.
Table 4

*Frequency of Content–Related Codes*

<table>
<thead>
<tr>
<th>Code: Methods of Communication</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Verse</td>
<td>17</td>
<td>12.32</td>
</tr>
<tr>
<td>Lists</td>
<td>14</td>
<td>10.14</td>
</tr>
<tr>
<td>Narrative</td>
<td>27</td>
<td>19.56</td>
</tr>
<tr>
<td>Poems</td>
<td>24</td>
<td>17.39</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td>Reprinted Material</td>
<td>31</td>
<td>22.46</td>
</tr>
<tr>
<td>Statements</td>
<td>32</td>
<td>23.19</td>
</tr>
</tbody>
</table>

The third content-related code referred to the person or persons about whom the blogger was writing, labeled *Subject* (SUB). The majority of blogs were written in the first person and therefore interpreted as being written about the blogger himself or herself. Fifteen percent of blog entries were ambiguous in subject, usually because the entry consisted of reprinted material or a poem. A small number of entries (12) were pertaining to general others in the bloggers social environment, as illustrated by statements such as, “seriously, people need to say what they are thinking, do what they want to do, and not let stupid shit get in the way!” (Blogger 7, female, aged 17). The other subjects about whom blog entries were written included specific people, such as
family, friends, or romantic interests; and general thoughts such as those about the nature of U.S. culture.

Table 5

*Frequency of Content – Related Codes*

<table>
<thead>
<tr>
<th>Code: Subject (To whom blog content is directed)</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>57</td>
<td>41.30</td>
</tr>
<tr>
<td>Family</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>Friends</td>
<td>11</td>
<td>7.97</td>
</tr>
<tr>
<td>Romantic Interest</td>
<td>17</td>
<td>12.32</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>21</td>
<td>15.22</td>
</tr>
<tr>
<td>General (in Social Environment)</td>
<td>12</td>
<td>8.69</td>
</tr>
<tr>
<td>General (in Society)</td>
<td>7</td>
<td>5.07</td>
</tr>
</tbody>
</table>
The last content-related code described the situation about which the blogger wrote in each entry. This code represented a simple content categorization, and housed 19 subcodes ranging from the expression of general emotions, feelings about other people or love, recounting events, or general thoughts. Some blogs were labeled as *Musings About Society* if they were comprised of commentary that was more opinion-oriented than emotional, such as the materialism of contemporary society:

…Look on MTV at shows …You can look on almost any channel and women, teenage girls and even men are obsessing over expensive material possessions and how well they look wearing them, in them, with them or driving them. It starts even in elementary school. I remember. If you’re wearing a shirt from a cheap store like Kmart or Wal Mart and not Old Navy, Gap or American Eagle kids made fun of you. If your sneakers weren’t Adidas or Nike, then you got made fun of. (Blogger 18, female, aged 17)

Other sub codes included one labeled *Ambiguous*. This was where inexplicable entries were placed such as “blahh. Fjlhgdjfjhlglhfdjfd that’s that” (Blogger 7, female, aged 17), or entries that were original poems without a clear subject.
Table 6

*Frequency of Content–Related Codes*

<table>
<thead>
<tr>
<th>Code: Situation: (About what the blogger is writing)</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambiguous</td>
<td>6</td>
<td>4.35</td>
</tr>
<tr>
<td>College or High School</td>
<td>4</td>
<td>2.89</td>
</tr>
<tr>
<td>Death</td>
<td>2</td>
<td>1.45</td>
</tr>
<tr>
<td>Describing Facts About Self</td>
<td>8</td>
<td>5.80</td>
</tr>
<tr>
<td>Drug/Alcohol Use</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>Expressing Emotion: Neutral</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>Expressing Emotion: Negative</td>
<td>17</td>
<td>12.32</td>
</tr>
<tr>
<td>Expressing Emotion: Positive</td>
<td>10</td>
<td>7.25</td>
</tr>
<tr>
<td>Expressing Feelings About Others: Neutral</td>
<td>2</td>
<td>1.45</td>
</tr>
<tr>
<td>Expressing Feelings About Others: Negative</td>
<td>11</td>
<td>7.97</td>
</tr>
<tr>
<td>Expressing Feelings About Others: Positive</td>
<td>6</td>
<td>4.35</td>
</tr>
<tr>
<td>Expressing Feelings of Love: Negative</td>
<td>12</td>
<td>8.70</td>
</tr>
<tr>
<td>Expressing Feelings of Love: Positive</td>
<td>6</td>
<td>4.35</td>
</tr>
<tr>
<td>“Fishing” for Attention from Opposite Sex</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td>Musings About Society</td>
<td>13</td>
<td>9.42</td>
</tr>
</tbody>
</table>
Table 6 (continued)

Frequency of Content –Related Codes

<table>
<thead>
<tr>
<th>Code: Situation: (About what the blogger is writing)</th>
<th>Sub-Codes</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recounting Events</td>
<td>2</td>
<td>1.45</td>
<td></td>
</tr>
<tr>
<td>Reprinted Material</td>
<td>20</td>
<td>14.49</td>
<td></td>
</tr>
<tr>
<td>Thoughts About Love: Negative</td>
<td>1</td>
<td>.72</td>
<td></td>
</tr>
<tr>
<td>Thoughts About Love: Positive</td>
<td>1</td>
<td>.72</td>
<td></td>
</tr>
</tbody>
</table>

Thematic Codes

Everyday Life

As the coding process continued and the content-related codes began to be refined, the parallel process of thematic coding was underway. As advocated by Miles and Huberman (1994), a “start list” of codes grounded in the research questions of the study were devised (p. 58). These included one code related to social development (SOC), one related to identity development (ID), and one that was related to everyday events or occurrences such as work, school, or sports, labeled Quotidian (QO). These codes were kept in mind after every block of ten bloggers had been analyzed in order to revise or create new sub codes as necessary. While several subcodes were created for each main thematic code, no new thematic codes were necessary. Tables seven through nine summarize the subcodes; the definitions are listed in Appendix A.
Few blog entries had to do with the everyday life of adolescents. Out of the total of eight entries that did, only one had to do with a hobby, in this case fiction writing (Blogger 24, female, aged 17). The other remaining seven were related to school activities, such as listing semester class schedules or top choices for college applications.

Table 7

*Frequency of Theme – Related Codes*

<table>
<thead>
<tr>
<th>Theme: Quotidian</th>
<th>Sub-Codes</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>School</td>
<td>7</td>
<td>5.07</td>
<td></td>
</tr>
<tr>
<td>Hobbies</td>
<td>1</td>
<td>.72</td>
<td></td>
</tr>
</tbody>
</table>

**Total Percentage of Blog Entries** 5.80

*Relational*

The second thematic code was related to social development. In keeping with the importance that adolescents’ peer groups play during this time of life, there was a high percentage (40%) of entries dedicated to relationships with friends and romantic interests. These entries ranged from examining feelings about a relationship, discussing a conflict between the blogger and another person, or a conflict within the blogger about another person, such as unrequited love or having feelings of attraction for someone who also made the blogger angry. Some entries were relational in nature while being more general in tone:
I was just talking with a friend of mine last night about men…Sometimes assholes amuse me like the ones that talk about themselves. All the time and seem to be attention whores and always brag about how people notice them. How great they are all the time. In reality I am thinking there [sic] a big joke. Find it funny that they need all this attention all the time to make themselves better. Than [sic] you got the pushy ones. That think if they push enough they will get what they want. Well that works with most women but not with my friend and I. (Blogger 30, female, aged 16)

Most subcodes in this thematic code category were given three variations, Positive, Negative, or Neutral. The above quotation was classified as General, Negative (G-N). An example of an entry with neutral tone is a female who posted a questionnaire for potential boyfriends to fill out for her perusal (Blogger 12). The subcodes Friends and Romantic Interest both had an additional variation, labeled Lament. This captured the rather dramatic, grief-stricken tone of some of the negative entries:

What emotions plague my soul?
If not most often-I say this-
So ardent are my feelings.
Felt bitterly, I presume,
is my despair and loneliness. (Blogger 3, female, aged 16)

The blog entries were largely evenly distributed among the different sub codes, with the average number of entries in any particular subcode being 3 (2%). The most frequently occurring sub code was writing about friends in a complimentary or positive manner
(6%). The most frequently discussed relationships were those with romantic interests (17 total entries); 13 of them were negative in tone in some way.
Table 8

*Frequency of Theme –Related Codes*

<table>
<thead>
<tr>
<th>Code: Social/Relational</th>
<th>Sub-Codes</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ambiguous Other, Negative</td>
<td>2</td>
<td>1.45</td>
</tr>
<tr>
<td></td>
<td>Ambiguous Other, Positive</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td></td>
<td>Ambiguous Other, Conflict</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>General Negative</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td></td>
<td>General Positive</td>
<td>5</td>
<td>3.62</td>
</tr>
<tr>
<td></td>
<td>General Neutral</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>Grief/Death</td>
<td>2</td>
<td>1.45</td>
</tr>
<tr>
<td></td>
<td>Family, Negative</td>
<td>2</td>
<td>1.45</td>
</tr>
<tr>
<td></td>
<td>Family, Conflict</td>
<td>2</td>
<td>1.45</td>
</tr>
<tr>
<td></td>
<td>Friends, Negative</td>
<td>5</td>
<td>3.62</td>
</tr>
<tr>
<td></td>
<td>Friends, Positive</td>
<td>9</td>
<td>6.52</td>
</tr>
<tr>
<td></td>
<td>Friends, Lament</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>Romantic Interest, Negative</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td></td>
<td>Romantic Interest, Positive</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td></td>
<td>Romantic Interest, Neutral</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>Conflict Between Blogger</td>
<td>5</td>
<td>3.62</td>
</tr>
<tr>
<td></td>
<td>and Romantic Interest</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 8 (continued)

*Frequency of Theme – Related Codes*

<table>
<thead>
<tr>
<th>Code: Social/Relational</th>
<th>Sub-Codes</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conflict Within Blogger, related to romantic interest</td>
<td>5</td>
<td>3.62</td>
</tr>
<tr>
<td></td>
<td>Romantic Interest, Lament</td>
<td>2</td>
<td>1.45</td>
</tr>
<tr>
<td><strong>Total Percentage of Blog Entries</strong></td>
<td></td>
<td></td>
<td><strong>39.85</strong></td>
</tr>
</tbody>
</table>

*Self-Expression*

The final thematic code reflected self-expression as a marker of identity development (ID), shown in Table 9. This constituted the most popular type of blog entry, making up 70% of all content. These codes ranged from feelings to thoughts and included philosophical musings and poetic expression, as well as meditations on religion and death. Reprinted material, usually from jokes or stories that were pulled from Internet circulation, was also included here, since the particular pieces chosen by bloggers were deemed a reflection of aspects of their personality, their thoughts, or feelings. Those pieces without a clear connection to the blogger were labeled under *General Thoughts*. This was the most common subcode, with 15 entries representing reprinted material such as song lyrics or favorite movie trailers. However, some of the entries were general in the
sense that they encompassed several different subjects and were written in a seemingly stream-of-consciousness style:

Some famous [and probably now, dead] insomniac once said,

“When you’re an insomniac, you’re never really awake…and you’re never really asleep.” Kudos to that brother! He was right!

It’s 5:49 AM, and even though I’m dead tired, sleepy as funk, and my eyelids are closing as I type this…I cannot go to sleep…And after such a grueling day of babysitting! Well, more like a grueling two weeks. God I love ‘em, but these kids have made me think twice about procreating. Ehh…nanaah. I love kids too much. Plus, I’ve spent my whole life selecting my favorite baby names! I name everything! My cell phone is Phoenix; my IPod is Achilles… (Blogger 24, female, aged 17)

The second largest category of self-expression was General Negative Feelings. Some blogs that were placed in this category were poems that were negative in nature but not discussing a specific thing or experience:

It’s so cold up here in space

It’s frigid in this celestial abyss

I’m slowly dying

As my blood becomes ice… (Blogger 25, male, aged 17)

Other generally negative entries were descriptions about feeling badly but with no reference to why:

I feel like I should punch a hole through the wall to my left.

Then, I feel that I should laugh at the enormous satisfaction it would bring me to
do so…Mere words do not suffice to describe the emotions reeling within me. It’s quite unfortunate… All I can do is sit here and boil. (Blogger 23, female, aged 17)

General positive feelings and thoughts about world events or society were also popular subjects upon which to expound. Original poems were only placed in the *Philosophical/Poetic Musings* subcode if there was no other discernable subject or emotion expressed, such as a series of haiku poems written by one blogger that ranged in topic from eating cheeseburgers to describing the beach.
Table 9

*Frequency of Theme –Related Codes*

<table>
<thead>
<tr>
<th>Code: Identity/Self-Expression</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambiguous</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>Death</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>Dreams, Wishes, Wants</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>General Feelings, Negative</td>
<td>11</td>
<td>7.97</td>
</tr>
<tr>
<td>General Feelings, Positive</td>
<td>7</td>
<td>5.07</td>
</tr>
<tr>
<td>General Feelings, Neutral</td>
<td>4</td>
<td>2.89</td>
</tr>
<tr>
<td>Make Self Known to Others</td>
<td>6</td>
<td>4.35</td>
</tr>
<tr>
<td>Negative Feelings, Specific Event</td>
<td>5</td>
<td>3.62</td>
</tr>
<tr>
<td>Positive Feelings, Specific Event</td>
<td>4</td>
<td>2.89</td>
</tr>
<tr>
<td>Negative Feelings About Love</td>
<td>6</td>
<td>4.35</td>
</tr>
<tr>
<td>Positive Feelings About Love</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>Negative Feelings About Self</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>Positive Feelings About Self</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>General Thoughts</td>
<td>17</td>
<td>12.32</td>
</tr>
<tr>
<td>Negative Thoughts About Love</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td>Positive Thoughts About Love</td>
<td>3</td>
<td>2.17</td>
</tr>
<tr>
<td>Neutral Thoughts About Love</td>
<td>3</td>
<td>2.17</td>
</tr>
</tbody>
</table>
Table 9 (continued)

*Frequency of Theme – Related Codes*

<table>
<thead>
<tr>
<th>Code: Identity/Self-Expression</th>
<th>Total</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoughts About World Events</td>
<td>7</td>
<td>5.07</td>
</tr>
<tr>
<td>and Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philosophical/Poetic Musings</td>
<td>1</td>
<td>.72</td>
</tr>
<tr>
<td>Spirituality/Religion</td>
<td>3</td>
<td>2.17</td>
</tr>
</tbody>
</table>

| Total Percentage of Blog Content | 69.56 |

**Conclusion**

The evaluative aspect of content analysis has enabled one research question to be answered. In response to the question of what bloggers write about, it seems that the majority of the time bloggers write about their own thoughts and feelings regarding a myriad of different topics, from love and their relationships with others, to the state of society. It does not appear that adolescents are using this medium to explore potential career or college options very often, or to carry on conversations started in school. Blogs offer a space of uninterrupted reflection and adolescents are using that to explore their creative impulses, clarify thoughts and feelings, and to make aspects of themselves known to others through the sharing of preferences, favorite jokes, and even holiday gift lists.
The fact that nearly all of the 138 blog entries reviewed were able to be classified as either related to social practices or identity presentation or exploration speaks to the dependability of the findings. The demographic information was consistent with the literature in terms of gender (Lenhart, Madden, Macgill, & Smith, 2007) and content (Lenhart & Fox, 2006), but represented fewer minority bloggers than would be suggested (Lenhart & Fox, 2006). The transferability of findings will be discussed in the subsequent chapter within the context of study limitations.

The following chapter will include a discussion of the findings from within the context of the investigation’s theoretical framework. This will include an exploration of what metaphor could be applied to blogs in order to better understand their function, along with a description of where in Bronfenbrenner’s nested systems the Internet resides. The findings’ interpretations will be based on the ways in which adolescents were found to use blogs, and what was expressed in their created content.
CHAPTER V
DISCUSSION

For middle class Americans, the period of growth defined as adolescence has lengthened as minimum education requirements for specialized work has increased (Erikson, 1968). This has led to the creation of an adolescent youth culture, which has been prompted and capitalized upon by commercial interests through advertising (Buckingham, 2008). Adolescent subculture is in part defined by the developmental tasks necessary to obtain adulthood, such as experimentation with different beliefs and identities. This period of time has been described as a “moratorium,” where youth are free to investigate different norms and values, and develop the capacity for self-reflection (Erikson, 1968, p. 128).

This investigation has examined how technological changes have affected the way in which adolescents create and maintain social connections. The Internet, and social network sites in particular, have reshaped adolescent social practices and have made it possible to manage large networks of friends from around the world. As the users most readily identified with these practices, adolescents are shaping cyberculture in increasingly more direct ways. This includes the creation of actual Internet content, through the development of web pages and blogs, among other things. It is through the content created on blogs that adolescents were found to participate in self-reflection and self-expression. Since blogs exist in the abstract world known as cyberspace, it can be difficult to conceptualize how exactly they function. Applying a metaphor that captures
their essential nature can be a way to better understand what blogs are. Based upon how blogs can be used, it is appropriate to recognize them as a medium rather than a genre, or “more akin to paper than to diaries” (boyd, 2006a, Reframing Blogging and Blog Section, ¶ 7). Just as a journal writer requires paper to chronicle experiences, a contemporary adolescent who has grown up with regular computer and Internet access uses a blog to process daily life. Both are means of self-expression, and both are shaped by the medium, or vehicle, through which this occurs. Blogs are unique in that they are inherently interactive; their content is constructed through the correspondence between bloggers and contributors. Blogs also function as a medium that can incorporate different means of communication, such as artwork, video, and audio downloads, to enhance written content. These expanded options give blogs a dynamic, multi-layered potential for expressing many facets of the self.

New research being conducted on topics related to adolescents and their cybersocial practices is growing exponentially. While most early research focused on the profiles adolescents were creating for their social network site pages, recent studies are delving deeper into how adolescents are making connections, what content they are creating, and how this may be shaping the Internet itself. Examining Internet use as a contextual factor in development has been identified as an important future direction for adolescent research (Subrahmanyam & Lin, 2007). This investigation is part of the empirical thrust towards obtaining a more complete understanding of how the use of new mediums of communication is affecting adolescents. Specifically, it is concerned with how blogging contributes to the developmental processes of adolescence and how it may be shaping the way development is occurring. This study’s findings emerged from the
analysis of 138 blog entries, written by 30 adolescents, aged 16 and 17. They offer some insight into the nature of the relationship between blogs and social and identity development. The results also contribute to the ability of counselors and counselor educators to integrate the use of technology in their work with adolescents.

The findings presented in Chapter 4 will be discussed within the theoretical framework of an eco-cultural developmental perspective. This perspective is reflective of the shared elements of Bronfenbrenner’s bioecological development model and Vygotskian interpretations of the role culture plays in cognitive development. These combined models offer a context for investigation that recognize the impact one’s environment has upon all stages of development, including the values and beliefs transmitted by the overall culture. Not only does the environment shape the process of one’s maturation, culture shapes one’s perceptions of reality. The findings will also be discussed within the context of the primary themes that resulted from data analysis, namely the two main adolescent achievements of social and identity development.

This final chapter will offer an overview of the research methods used and the subsequent results obtained during the investigation. The findings will be interpreted using the theoretical framework and main coding themes described above, and limitations of the investigation will be identified. Recommendations of future research based upon the study’s limitations and interpretation will be presented, followed by implications of the study’s conclusions for counselors and counselor educators.

Research Overview

The aim of qualitative research is to explore previously under investigated phenomena in order to produce hypotheses and clarify future research directions. The
qualitative content analysis conducted for this study has shed light on what exactly adolescents are talking about when they use blogs as a communication medium. The content of the sample entries was in fact found to reflect the two types of development that take on special importance during the adolescent years, social and identity formation. These proved to be the two most robust themes within which all but a few blog entries could be categorized as a result of the coding process.

The steps taken during qualitative data analysis must be explicitly presented in order to ensure the trustworthiness of the work; failure to present a replicable study calls the nature of the research into question. Credibility, transferability, dependability, and confirmability of the data must all be protected in order for the findings to bear any relevance to the field within which the study was conducted (Lincoln & Guba, 1985). The following overview of data analysis will present the ways in which the sensitivity and relevance of the findings are assured.

The theoretical and contextual sensitivity of the study was preserved by comparing findings against those presented in recent literature as well as personal experience. These sources were also used in the creation of potential coding categories. As noted in Chapter 2, there has been some conflicting literature generated on the effects of Internet use on adolescent development. Early findings of loneliness and gender differences in relation to computer use have been acknowledged to have been tied to the complicated nature of early software and operating systems and the lack of other technologically literate peers rather than to computer use itself. More recent studies have found that adolescents, as the “defining users” of the Internet, are in fact fashioning a culture according to their own specifications and needs (Peter & Valkenburg, 2005, p.
The extent to which this is reflected in adolescent blogs will be discussed within the context of qualitative sensitivity and models of development.

**Personal Experience**

In addition to close examination of the literature, potential bias was identified and acknowledged by reviewing my personal reasons for initiating the study as well as my work with adolescents. I first became interested in the subject of adolescent development while working as an outpatient counselor in a substance abuse program geared towards young people aged 13 to 18. Treatment took place in a group setting and consisted of the presentation of recovery-related information, discussion, and therapeutic group processing. It was necessary to tailor psychoeducational material and discussion style to the unique needs of adolescents, which drove me to learn as much as I could about this stage of development. The intersection of my interest in development with cybersocializing occurred during my tenure as a private secondary school counselor in 2005, when the students themselves initiated me into the mysteries of social network sites. They took great pleasure in showing me their profile pages and the pictures of the people in their extensive friend networks. As I became more knowledgeable about this previously subterranean community, certain questions about the nature of identity when expressed in a non-verbal context began to arise. The fact that cyberspace required the conscious presentation of identity made me revisit the sociologist Erving Goffman’s (1959) notion of social interaction as performance not unlike those that occur on the stage. The symbolic interactionist interpretation seemed to be a good starting point for contemplating this new social phenomenon but left me with unanswered questions such as, how authentic is an identity that can be manufactured without safeguards for
accuracy? What happens to a sense of self when one must continually “type oneself into being?” (Sunden, 2003, p. 3). It was at this point that I began to consider how developmental processes may be influenced by, or are influencing, new technologies. The fact that the subsequent study was grounded in relevant literature, personal experience, and explanations from adolescents themselves of cyberculture allowed me to stay theoretically and contextually grounded during the analysis.

In order to begin the process of data analysis, it was necessary for me to bracket my assumptions born of my knowledge of both adolescent development and Internet culture as it is experienced by adolescents. I acknowledged that my initial line of questioning held a bias that behavior posted for others’ consumption is somehow less authentic than that which is not shared with others. I also expected that given the public nature of blogs, the content would show characteristics of public performance, such as full explanations of all events and descriptions of the details of daily life in order to give a complete picture of a blogger for the strangers in the audience. In keeping with my understanding of the definition of the term blog, I assumed that there would be frequent postings that were related to one another, and that taken together they would form a coherent chronicle. My understanding of adolescent development and behavior created some assumptions related to the social aspect of blogging. I expected to find continuations of conversations started at school or on the telephone/cell phone, and that the content would be for the most part about friends and love interests, with a preponderance of gossip. In keeping with the indirect aggression that is attributed to adolescent girls, I expected the blogs to be the perfect vehicle for bullying. I thought that I would find negative descriptions of girls and complaints about one another, with fights
occurring through the postings and comments of those who read the blogs. In keeping with the explosion of sending text messages via cell phones and the abbreviated language that it has spawned, I also expected the blog texts to be written with a mix of text message acronyms, abbreviations, and adolescent slang.

Since analysis occurred in groups of ten bloggers’ postings, I was able to review after each set the extent to which I had been able to keep my biases and assumptions separate from the coding process. I kept a journal to document the coding process, where I could record any instances where biases were noticed to ensure their separation from the text. The prolonged engagement I maintained with the material, characterized by frequent re-readings of the entries and the revisiting of codes after each set of ten, allowed me to cultivate consistent observation of the themes and categories as they emerged from the text.

Upon analysis, few of my expectations were found to exist in the data. The nature of the blog content and its interpretation will be discussed in the Data Overview section of this chapter. In order to provide a theoretically grounded interpretation of the data, it is first necessary to review computer use from within an eco-cultural perspective. Reviewed using this particular developmental framework, blog content can then be understood within the context of proximal and distal environmental influences on developmental processes.

Eco-Cultural Perspective

In order to describe computer use, and blogging in particular, within an eco-cultural framework it is necessary to place cybersocializing within Bronfenbrenner’s nested systems. Computer use takes place within microsystems, such as the age of the
user and the home environment in which the computer is located. The way in which family members view the computer and its role in their lives is influenced by macrosystem elements such as socioeconomic status, race, and gender. The macrosystem elements are themselves products of the larger culture, which resides within the exosystem. Applying an ecological perspective allows computer use to be seen in relation to environmental factors and shows the Internet as functioning as a mesosystem. A mesosystem is a web of microsystems that serves as a link between multiple social settings. The mesosystem is made up of two or more microsystems that share common factors, but can also be held in place by the fact that one person inhabits the microsystems simultaneously (Bronfenbrenner, 1979). The Internet, and social network sites in particular, function as a means of “intersetting communication,” allowing information to be sent from one microsystem to another, in much the same way as the telephone or letters have traditionally been used (Bronfenbrenner, 1979, p. 210). The Internet serves as a clearing house for “social network chains,” written communication, audio and visual communication, with new permutations and mediums, such as blogs, being created on a regular basis (Bronfenbrenner, 1979, p. 210). Adolescents can communicate with school friends, people they know through after-school employment, or with network members who are known only through their involvement in MySpace, thus creating a series of interconnected links to various microsystems.

Extending the ecological perspective further, one could apply Bronfenbrenner’s definitions to cyberspace itself. How would the various aspects of the World Wide Web discussed in this study be classified, and within which systems would they reside if cyberspace replaced the physical world as the basic environment? Applying
Bronfenbrenner’s systems creates an emerging context of interrelated environments that span outward in lessening amounts of direct influence. The microsystem, being the system within which one has the most direct interaction, could in this context be characterized by a specific chat room, game, or social network profile page. The macrosystem, as products of general cyberculture, encompasses the beliefs and norms of behavior that exist for each microsystem. For example, there is proper protocol to follow when communicating in a chatroom, a multi-user game, or e-mail. Those who use racial or sexual slurs in monitored chatrooms will be asked to leave; those who routinely forward Internet material to large numbers of people will be viewed as intrusive and socially inappropriate.

The mesosystem has already been identified as housing the Internet, as it serves to link other microsystems together. For example, asynchronous communication such as e-mail, multi-user Internet games, and instant messaging all can be thought of as specific microsystems that all can be linked together when one is online. Indeed, adolescents regularly inhabit multiple microsystems while using their computers, multitasking continuously.

Bronfenbrenner clearly differentiates between the mesosystem and the exosystem, despite the fact that they serve a connecting purpose:

The principle of interconnectedness is seen as applying not only within settings but with equal force and consequence to linkages between settings, both those in which the developing person actually participates and those that he may never enter but in which events occur that affect what happens in the person’s
immediate environment. The former constitute … *mesosystems*, and the latter *exosystems* (Bronfenbrenner, 1979, p. 7-8).

The exosystem links different settings which may not be inhabited to the same degree by an individual. The two essential elements of an exosystem are that there must be at least two settings, and the process by which characteristics of or activities in those settings influence an individual takes place in two stages. Bronfenbrenner (1979) uses the example of television to illustrate the exosystem because “program[s] enter the home from an outside source” (p. 241). The content viewed by the adolescent’s parent’s influences their behavior by limiting family interaction while shows are being watched, or by teaching the parents something that would lead to their attempts to place new limits on their adolescents’ freedom or activities, etc. In turn, the changes the parents have undergone will inevitably lead to alterations or influence in the adolescent’s home life, and through extension, their behavior and ultimately, their development. While Internet content (rather than social activity) can be substituted for television programs with the same effect, there are also other ways this concept could be applied to cyberspace. This is especially true since the onset of social media such as e-mail, blogging, and socializing via network sites, make it possible for an individual to post one piece of information that potentially could be viewed by large numbers of people. The emergence of these interactive technologies has changed the way people participate in community life. People have moved away from simply being members of an audience or consumers, both of which imply passive reception of what has already been created (Shirky, 2008).

Telecommunications researchers have described a new culture where people, dubbed “the former audience” and, by extension, the former consumer, “react to, participate in, and
even alter a story as it is unfolding” (p. 7) and who “talk back to businesses and speak out
to the general public…[at times] en masse and in coordinated ways” (Shirky, 2008, p.
179). This illustrates Bronfenbrenner’s (1979) description of an exosystem working in
two directions, one where the individual influences “distant quarters” and one where
distal settings can lead to direct influence in the microsystem (p. 237). A particularly
dramatic example of this concept began in 1999, at which time an 18 year old in his first
year of college, Shawn Fanning, created a centralized server that allowed people to share
and trade music files. The ability to download music without paying a fee was seen as a
threat to the music industry and to artists’ ability to earn money from CD sales
(Greenfeld, 2000). By 2002 it was estimated that 60 million people used the site
(“Napster Wars”, 2002). This adolescent, by writing specific code, changed the way
songs could be obtained, the way traditional CDs were conceptualized by artists, and how
musicians marketed their product (Greenfeld, 2000). By changing the music procurement
practices of millions of people, Mr. Fanning has indelibly influenced the music industry
and business models for how music can be created and sold (Greenfeld, 2000).

The fact that social media has not been accessible to large numbers of people
prior to 2003 highlights the historical nature of the Internet and the fact that time can
shape our environment in powerful ways. Therefore, the chronosystem is also relevant
within the context of cyberculture. This system is at the outermost point of proximity to
the individual, yet like the macrosystem can influence the structure of all the other
systems.

Bronfenbrenner’s conceptualization of the way in which the exosystem serves as
a distal influence on more proximal systems dovetails with the Vygotskian view that
knowledge construction is shaped by culturally informed social processes. For both theorists, developmental maturation is at once born from uniquely individual proclivities and from the collective society in which the individual lives (Karpov, 2005). Vygotsky described social processes as the driving force of such maturation, especially those that occurred as a result of participation in the educational system (Langford, 2005). In recent times, neo-Vygotskian theorists have extended the scope of socialization beyond what occurs during school to include all social interactions (Karpov, 2005). Social development, in this context, serves a larger goal of identity development, or the forming of an overall sense of self. Vygotsky, like Piaget, noted the necessity of formal thought and the ability to think logically as another essential ingredient in the achievement of identity development. The ability to self-reflect results in self-consciousness, which becomes the basis for one’s worldview over time.

Bronfenbrenner has acknowledged the influence of Vygotskian theories of culture and development on his own contextually driven development model which provides a theoretical underpinning of the ecocultural approach (Bronfenbrenner, 2005; 1979). Vygotsky conceptualized knowledge as co-constructed by the individual and the social context within which he or she lived. With more adolescents spending time in online pursuits, an interesting question arises: How is knowledge constructed in cyberspace? The unique aspects of computer-mediated communication— the anonymous and potentially international audience, the lack of adult regulation, the ability to both consume and create content—allow certain hypotheses to be made. For example, since there are a nearly unlimited number of special interest groups to join, games to play, and MySpace profiles to peruse, the potential for cybersocializing is enormous. This could
cause a splintering effect due to the fact that each social group tends to have its own value system, lexicon, and standards of behavior. Adolescents could potentially receive many mixed messages and conflicting pieces of information. There is already evidence that those born in 1985 or later are so used to multitasking (engaging in multiple online synchronous chats while surfing the Internet and doing their homework, for example) that they rarely focus their attention entirely on one person or activity (Rainie, 2006). The World Wide Web is a distinctly non-hierarchical environment, where it is often difficult to tell which information posted is authentic or valid. This can make knowledge construction dependent upon sifting through vast amounts of data from multiple online formats and subject to the proliferation of inaccurate or faulty information. At its worst, the cyberconstruction process can be seen as a fragmented, discursive, and potentially overwhelming experience.

The fact that much of adolescent cybercommunication is outside of adult oversight leads to the assumption that potentially harmful norms of behavior and communication may be established in electronic culture. Cyberbullying is an example of such negative activity. A 2006 study conducted by the Pew Internet and American Life Project found that 38% of all girls surveyed and 26% of boys reported being the victim of some kind of bullying behavior such as having private communication made public, being threatened through online communication, or having a rumor or embarrassing photograph spread through the Internet to others (Lenhart, 2007). Internet sites that allow people to rank their peers, bosses, professors, and others continue to enjoy popularity, with postings tending to be confessional, retaliatory, or sexually suggestive (Rainie, 2006). The construction of socially acceptable behavior is now taking place in two
distinct environments, in cyberspace and in physical community. The potential discrepancies between the two have been shown to create difficulties in the workplace and other traditional settings (Rainie, 2006).

According to Vygotsky, language is the single most important symbol through which knowledge is transmitted as it shapes the way the world is interpreted. Since Internet content is largely created through the written word, knowledge construction in cyberspace occurs through a qualitatively different experience than in other environments, where face-to-face verbal communication is the norm. All expression must be consciously articulated, since electronic communication requires the continuous “[writing of] oneself into being” (Sunden, 2003, p. 3). However, there is no control over how one’s audience will interpret what is communicated. Concomitant facial and tonal expression, body language, and other social cues that serve to inform the written word do not exist. In this way, computer-mediated communication can be seen as a rather truncated form of expression, which is open to multiple possible interpretations by the reader. This creates the possibility of fragmentation in much the same way that the sheer enormity of the social environment potentially generates.

Knowledge that is constructed as a result of both individual and social processes is necessarily fluid, shifting in response to cultural changes, interpersonal experiences, internal biological maturation, and education. This process is exponentially accelerated in cyberspace as content is constantly generated by people from a variety of cultures. This rapid transformation is potentially disjointed and incoherent. The fact that anyone with basic computer proficiency can not only consume content but also create it allows for the intersection of an array of diverse ideas and worldviews. Venues like YouTube, which
allow people to post video clips that are accessible to anyone with an Internet connection, have led to the rapid proliferation of material, which in turns sparks new trends, new slang terms, and other social practices. These phenomena illustrate the accelerated pace and de-centralized nature of the production of data and its consumption by others.

Knowledge construction in cyberspace can be described as cooperative and allowing for greater personal control in the way in which it is integrated. The Internet has the potential to facilitate large-scale social interaction, which can function as collective scaffolding experiences. The speed of delivery and the amount of data available present challenges to coherent, incremental learning despite the benefits of social connectivity. It is possible that these characteristics are influential in the shift towards a post-modern conceptualization of identity- one that is less cohesive and more mutable. This is illustrative of the Vygotskian idea of knowledge construction as a recursive process, where changes in culture lead to changes in language and symbolic representation, which in turn influence individual conceptions of self, leading to changes in the culture at large.

Data Overview

In keeping with one of my expectations, blog writing appeared to occur within the context of daily friendships. The way in which most blog entries were written implied an expectation that friends would be reading the content and have an understanding of what it referenced. In that way, the content did not seem to be created for the benefit of friends as well as for an unknown audience, contrary to my assumption that strangers would be an expected audience and accommodated with background information for the topics discussed. There were few explanations to help strangers comprehend why bloggers were feeling a certain way:
The 4 days that made up what was the band trip, were 4 of the worst days ever. I came to a few realizations (some that I would rather do without) about my life. I would just like to thank the few of you that helped me, and were my salvation. Even though you probably don’t know who you are, I am eternally grateful for your simple, no drama presence. Ah, spring break couldn’t be long enough to allow me to recover from the state of mind I’m in now. I just hope it’s long enough for me to gain the strength to endure the enterprises I have in mind for our return to school (ha, I doubt it). Anyway. I hope all of the rest of you that went had a better time than I did. (Blogger 4, female, aged 16)

The entries do not seem to be written in such a way as to invite comments from friends, but rather as simple descriptions or explanations. While blogs have the potential to be interactive, the style of writing in the study sample was unidirectional in nature, with no questions asked that would require replies, aside from one blogger’s survey which was posted for potential boyfriends to complete.

The personal nature of the blog content found in this study shows that bloggers are seemingly using their entries as a means of expressing themselves to existing social contacts. This is upheld in the literature, which points out that while meeting new people and expanding the size of one’s network are motivating factors for cybersocializing, adolescents are “primarily communicating with people who are already a part of their extended social network” (boyd & Ellison, ¶ 7). It is the fact that “they enable users to articulate and make visible their social networks” that makes sites such as MySpace so attractive (boyd & Ellison, 2007, ¶ 7). The way in which bloggers present more personal information in their blogs than in their profile pages implies that more privacy is expected
as one moves deeper into members’ sites. The fact that a contrast exists between the
descriptive presentation on profile pages and the more intimate sharing of thoughts and
feelings in blog content suggests that contrary to some assertions about contemporary
adolescents, they can be somewhat protective of their privacy when posting information
through a public medium. One blogger even declared that she would not share the details
of a situation since it was considered a private matter:

Ok, so I went to … fall regionals this weekend, went to homecoming dance,
parade, and game…and yet I still feel like shit. And I have an idea to the reason
why, but I wont [sic] state here the cause. It’s personal. And it’s also my burden
to carry. I blame myself, but a [sic] the same time, the cause continues to plague
my mind. I hate it when this happens. Damn my heart. It just never seems to want
to stop aching. (Blogger 3, female, aged 16)

Cyberspace is characterized by murky boundaries between public and private domains.
This was shown to be true to some degree in the study findings, since both profile pages
and blog entries are accessible to anyone surfing the Internet. In the same way that people
expect to maintain a modicum of private physical space while out in public, there is an
“internal focus” of much of the content that is posted for general consumption (Stern,
2008, p. 101). This contradiction of internally focused content being communicated
through a publicly accessible medium is part of the unique nature of computer-mediated
communication such as social network sites, blogs, and chat rooms. While it is easy to
assume that the material that is posted online is done so with the authors’ hopes of a large
audience, it is necessary to view social content on the Internet within its own context. Just
as it is possible to overhear conversations that occur in public places, it is normal to come
across posted material that has not necessarily been generated for anonymous readers.

“The bloggers and social network users operating in small groups are part of a community, and they are enjoying something analogous to the privacy of the mall” (Shirky, 2008, p. 85). The content generated from these social media are in many cases made up of the same content of everyday life but it is occurring in the same medium as material meant for an unknown audience and perhaps created professionally (Shirky, 2008).

Identity Development

Post modern psychological interpretations of identity maintain a tension between the fictional nature of social constructions such as gender and race and the individual and often deeply felt experience of living out these identifiers (Layton, 1998). Similarly, there may be a difference between the intellectual suppositions surrounding the influences of the Internet and the actual experience of developing during the age of technologically advanced social media. More research examining the process of development as well as the experience of identity as it relates to Internet use is needed to fully illuminate this phenomenon. Some suggestions can be offered as a result of this investigation’s findings, with the acknowledgement that it is difficult to draw conclusions based upon the data gathered since the adolescent bloggers examined are still in the process of developing their identities. However, there are specific characteristics of adolescent development that emerged through this inquiry, which have their counterparts in the literature.

Erikson described adolescence as a time to experiment, to test limits, and to try on different ways of being in order to find authenticity and a fixed sense of self. Thus, adolescence can result in, as Harter (1999) described, an “increase of identities that vary
as a function of the relational contexts in which the adolescent participates” (Valkenburg, et al., 2005, p. 384). The blog entries in this study were found to be illustrative of the process of discovering self in relation to others, as these theorists would suggest. If the purpose identity serves is to differentiate oneself from others (Charmaz, 1997), it follows that a relational process is needed to achieve it. This was illustrated in the blog content by those who wrote lists of feelings and thoughts they had about others, by those who wrote about their feelings of remorse or excitement in their romantic relationships, frustrations with friends, and feelings of powerlessness with their parents. This content reveals the process of coming to terms with their own and others’ behavior and emotional responses, exploring what feels helpful or harmful to them, what is outside of their value system, and what they would like to emulate.

In addition to development being a relational process facilitating differentiation, it is also a process of self-construction. Inevitably influenced by macrosystem or cultural elements, “the self and its identities participate in life through self-presentation” (Valkenburg, Schouten, & Peter, 2007, p. 384). Just as social network sites are designed to enable the articulation of groups of friends and make explicit those webs of relationships, the nature of online interaction requires the explicit construction of identity (Buckingham, 2008). This is being done in ways that differ from the traditional vehicles of physical appearance and social mannerisms. Instead, it is done through home page construction, blogs, and profile pages, where the self can be continuously revised and presented differently through changes in the music, wall paper, preferences, and pictures posted in these different mediums. Taste performances as identity descriptors (Goffman, 1959) were found throughout the blog content studied, with personality traits described,
gift wishes expressed, favorite movies, songs, and cell phones offered for others’ perusal. Identity claims were also frequent, and were often in the form of lists of characteristics a blogger had by virtue of his or her state of residence or in the form of political and religious views that were expressed in detail. General self-expression was also present, with original poems posted along with thoughts and feelings about the nature of daily life.

Along with being able to continuously change one’s way of performing or presenting one’s identity, adolescents are also able to save the many configurations they have created for future reference or review by others. Bloggers made references to changing their self-descriptions in order to stay up to date with their self-conceptions:

Out with the old, in with the new.

Alright, so I took some stuff out of my ‘about me’ section. I added some new stuff, too. Things change, people change, my ‘about me’ shall change. This is what was taken out. I’m putting it in here so if I get new friends people have the chance to read this, too…(Blogger 18, female, aged 17).

This blogger made a point of archiving her previously posted ‘about me’ material for others’ review. Blogging therefore allows not only the continual explicit evolution of the self, but reflection upon the developmental process itself. This gives one the chance to examine what new elements of self have emerged and perhaps grow or change as a result of what has come before. The archival and confessional nature of this medium offers adolescents the chance to be self-reflective and also self-reflexive, since they can continue to revisit their entries and gauge how relevant or characteristic the content continues to be. This is an added benefit in the process of identity formation.
The fact that identity constructions can be so explicitly created and changed with such frequency could provide evidence for the eventual fragmentation or mutability that postmodern theorists suggest is the end point for identity formation. Other researchers propose that the diversity of selves expressed online can facilitate the process of self-integration (Doring, 2002). The degree to which social media can be seen as detrimental or supportive of identity development is limited by the newness of the technology. Pre-Internet and post-Internet life are too different to be easily compared; the changes are so pervasive and widespread that direct comparison is difficult (Shirky, 2008). In terms of cultural change, time is needed before the effects of technology can be accurately tracked:

Communications tools don’t get socially interesting until they get technologically boring. The invention of a tool doesn’t create change; it has to have been around long enough that most of society is using it. It’s when a technology becomes normal, then ubiquitous, and finally so pervasive as to be invisible, that the really profound changes happen, and for young people today, our new social tools have passed normal and are hading to ubiquitous, and invisible is coming (Shirky, 2008, p. 105).

The data collected in this investigation has shown that three aspects of identity development—relational exploration, identity construction, and self-expression—are all happening using the medium of blogging. These processes are being conducted in a new context and in new ways, but are not necessarily new processes.
Social Development

Prior investigations of adolescent social network site users and creators of personal web sites have revealed straightforward reasons for involvement in cyber activities. The desire to connect with existing social networks (boyd, 2008), receive validation from peers, learn the mechanics of web site development, and “establish an online presence” are all motivating factors for time spent online (Stern, 2008, p. 101). Despite the contemplative and non-interactive stance shown by the majority of entries in this study, social interaction was a frequently occurring topic of discussion. Relationships of various kinds were a topic of interest as 40% of entries discussed those with family, friends, or objects of romantic attraction. This suggested that while activities that support identity formation were the most frequent type of blog content, adolescents were also spending a great deal of time trying to solve the delicate problems resulting from social interaction, such as managing intimate relationships and resolving conflicts.

While romantic relationships accounted for nearly a quarter of the blog content analyzed, the subject of friendship did not garner as much attention. No entries were categorized as Thoughts About Friendship. However, 11% of blog entries addressed friends in particular. The majority of those were positive:

OMG [oh my God] well im very happy that I have the ppl th@ i have in my life i just wanted to say thanks guys for everything I love you like u have no idea thanks for sticking with me through everything I LOVE YOU. (Blogger 27, female, aged 16)

The preceding blog entry proved to be one of the few that was written with text-message acronyms and abbreviations. Contrary to my assumption that text message writing style
has become ubiquitous in adolescent communication, most of the blog entries did not employ much slang.

Cybersocializing is paradoxical in nature. The lack of nonverbal cues gives adolescents more control over how they perform or present themselves, yet the lack of physical distance between different network sites and communities leads to a “context collision” where people from different social groups can all have access to one’s online presentation (boyd, 2006b, ¶ 35). This creates a situation where it can become difficult to “manage [one’s] own performance and interactions between disparate groups (boyd, 2007b, p. 3). Growing numbers of employers are perusing potential new hires’ social network sites or otherwise searching for them online in order to obtain additional information about them (“MySpace is Public Space,” 2006). This is causing adolescents to deal with the ways in which their many identities are presented and perceived in different contexts and by different people.

As social media continues to become fully integrated into the fabric of people’s lives, issues that stem from differences between “everyday” social practice and online practice become less important and ultimately irrelevant. New norms and rules of behavior arise from the specific features of each technology and become social tools through these unique dynamics (boyd, 2007b). This process is recursive in nature, with new concepts derived from cybersocial behavior leading to changes in the way ideas such as friendship and communication are perceived (Beer, 2008). This provides a context for understanding why there is evidence for the “rich get richer” hypothesis, or the notion that adolescents who are already socially successful use the Internet more frequently to continue their connections to social networks than those who do not possess such skills.
(Valkenburg & Schouten, 2005). In a sense, social network sites are an expansion of existing social practice. There is evidence that specific types of social media, such as chat rooms, may attract adolescents with less social status and fewer skills, which shows that cyberspace can help to provide social support to those adolescents who have difficulty obtaining it among their immediate peers (Heitner, 2003). In keeping with the rich get richer hypothesis, one recent study found that bloggers tend to score high on personality traits such as extroversion and practices such as self-disclosure (Stefanone & Jang, 2007). While the sample was made up of bloggers of various ages, the fact that personality traits are enduring implies that it is precisely those adolescents who would already be seeking out large social networks and who are already comfortable talking about themselves are more likely to create blogs as an extension of their everyday socializing.

Sexual Development

This investigation is in response to the possible social changes that have resulted from new technology. As social constructions have begun to shift in response to social media, so too might sexuality (Stern & Handel, 2001). Sexual development, as has previously been discussed, can be characterized by a time of experimentation in ways that are both identity related and social in nature. For example, sexual orientation is related to an overall sense of self, and physical intimacy can be a part of learning about oneself in relation to others. The Internet has provided a new method for exploration due to the plethora of graphic, textual, and community-oriented sites where sexual content is shown, written about, or discussed.

Cybersexual experimentation raises some interesting questions related to physicality, intimacy, and the power of symbols. As stated by Ross (2005), “this
electronic dimension appears to have led to a transfiguration of intimacy (p. 346).” The anonymous nature of online interaction can lead to a state of disconnection and isolation known as *deindividuation*, which is often a precursor to deviant behavior (Chiou, 2006, p. 548). The lack of inhibition may occur without the development of emotional intimacy as it usually does in everyday life (Chiou, 2006), which could impede the social skill development of adolescents whose primary vehicle for sexual experimentation is online. However, as others have pointed out, cybersexual experimentation can feel safer and require more overt communication without the pressure to respond physically (Turkle, 1995). Vygotskian notions of the primacy of language in constructing knowledge can be applied to cybersexuality as well, as sexual practices in that context are held in the realm of the imagination:

…the growth of the Internet for sexual purposes may be seen as a confirmation not only that desire is located in the symbolic, but also that the words and signs are a substitute, and sometimes a more satisfactory substitute, for the real (Ross, 2005, p. 346).

Blogs, as a specific medium, could therefore be seen as mechanisms for preserving deindividuation and self-objectification (Flora, 2007) or as a means of counteracting such influences by sharing personal information. While female adolescents are more likely to create and maintain blogs, males are more likely to search out sexually explicit material (Boies, 2002; Cameron, Salazar, Bernhardt, Burgess-Whitman, Wormwood, & DiClemente, 2004), respond to others’ intimate disclosures (Chiou, 2006), and engage in masturbation while viewing explicit material online (Boies, 2002). Interestingly, male and female adolescents both endorsed the belief that women are sexual objects after
viewing explicit online movies, as opposed to any other type of media (Peter & Valkenburg, 2007), which implies that while boys may view more content, it can have the same effect on both genders.

Unlike prior studies done on social network sites’ profile pages, which have been found to be laden with sexual references (Hinduja & Patchin, in press), the blog content analyzed in this study was not very sexually oriented. Rather, the content that did address romantic feelings tended to be negative reflections on the nature of love or related to a conflict between the blogger and the subject of interest:

I must admit to a certain degree I kind of blame myself, for holding onto you too long while you put me on the shelf. I don’t know if it would have lasted forever, but I sure was willing to try, I wonder if I tried too hard, cause you were ready to say goodbye…despite the tears and all the pain, I wanted to let you know, that even though it’s bittersweet, I’ve finally let you go. (Blogger 28, female, aged 16)

MySpace allows bloggers to list the subject category of their entries next to an emoticon that communicates the mood the blogger was in at the time the entry was posted. Few bloggers took the time to categorize their entries, but many chose a particular symbol to represent their mood. The blogger below specifically placed her entry in the “romance and relationships” category in order to clarify the somewhat vague text:

i got hurt by what i wanted
i lost what i had
But i no [sic] that what hurted [sic] me I shouldn’t be with
But i wanna no what is ganna happen with this…(Blogger 27, female, aged 16)
There were no sexually explicit descriptions, nor were sexual encounters recounted for others’ benefit. Thoughts and feelings expressed about either love or a specific romantic relationship accounted for 24% of all blog entries. None of the blogs analyzed for the study contained expressions of any sentiments that would suggest same sex romantic relationships. All of the blogs that were written about love or a specific romantic interest were of the opposite sex of the blogger. This implies that either gay or lesbian bloggers camouflage the sex of their romantic partners for safety and privacy, that blogs are not deemed a safe means of exploring sexual orientation, or there are other online contexts besides MySpace where homosexual content would be accepted.

The utter lack of sexual material in the blogs analyzed in this study suggest that there are other mediums for this kind of exploration and reflection that are more popular and have a larger role in the sexual socialization of adolescents. In addition, the results may have been due to the overwhelming majority of female bloggers in which the random sample resulted; a subsequent study focusing only on male bloggers may yield different results. Blogs as a medium seem to lend themselves to the exploration of the relational and value-influenced aspect of sexuality rather than actual sexual activity. The specific examination of values will be discussed below.

*Moral Development*

The social aspect of blog postings showed evidence of declarations of values and other signs of moral development. Entries extolling the importance of loyalty and civic pride are examples of self-expression being a vehicle for the maturation of identity. A frequently occurring moral dilemma was feeling stuck between a person the blogger had romantic feelings for and the person who was actually available:
…its killing me.
laying in my bed.
just wondering.
the phone rings.
put on a smile now.
he can’t know your hurting.
he won’t help.
he’ll just make it worse.
and then you.
reading this.
probably thinking its about you.
but its not.
you don’t call anymore.
you say you want that girl.
the one whose around the morning after.
well I always was.
if not physically emotionally.
but you dont see it.
you don’t see the love.
the longing.
so I go back to him.
the one who calls.
the one who thinks im amazing.
at least he says he does.
i dont know what to think anymore.
my heart is torn.
say yes. (Blogger 7, female, aged 17)

A second frequently occurring variation of this moral dilemma was dealing with
unrequited love, and how honest one should be to the object of desire:

I’ll admit it, I’m a liar.
I honestly fear that may be the only thing
That I’m truly honest about.
I told you that I loved you.
I swear that was sincere.
But where I crossed the line
With a colossal
Not so white lie
Was telling you that I was alright
With just this one sided life.
This output with no return.
I didn’t want to sound selfish,
I didn’t want to add another sin to my list.
But the truth is I’m greedy.
I don’t want to give and not receive.  
How can anyone love  
As though they loved a wall?  
So this time I will say it as I mean it  
I love you  
And I’d be a liar  
If I told you  
I was going to be alright  
Not having it returned.  
Call me selfish  
Call me a liar  
Call me what you will  
But I’m only human  
I can’t give a love  
That’s truly unconditional. (Blogger 25, male, aged 17)

Some blog entries were also made up of adolescents’ struggles to come to terms with what they perceived to be immoral behavior on the part of their friends or people in general. The following blogger wrote an entry after watching a friend become inebriated at a nearby bar:

[Another friend] called her boyfriend and her boyfriend said leave her there apparently. She has done it more than once and she has a problem with drugs and alcohol in the past. It just made me sick and she has not come home at all. I feel sorry for her baby and just how sad it is…I am not really sure if I want to be friends with her anymore…I have lost respect for her… (Blogger 30, female, aged 16)

There were only two positive descriptions of alcohol and drug use, while the remaining 2 bloggers who mentioned substances did so within the context of choosing not to use them and wishing more of their peers would follow suit. This is in marked contrast to the number of profile pages that show pictures of adolescents engaged in illegal drinking and drug use. It could be that the type of adolescent who uses blogging as an outlet for
expressing thoughts and feelings is more invested in exploring what is right and wrong for them, and less susceptible to peer influence or pressure to experiment with illegal behavior. There could possibly be contradictions found between what is presented to a larger audience and what is written for a smaller, better known set of friends. Comparing the study samples’ profile page content to corresponding blog entries was beyond the scope of this study, but would be a potentially illuminating expansion of this investigation.

The 138 blog entries used in the study are remarkably varied in specific content. However, taken together, they reflect the main aspects of adolescent development- self-reflection, peer relationships, sexuality, and morality. These different elements are all important as they allow adolescents to explore various behaviors, attitudes, personalities, and ways of relating. The exploration process is necessary in order for young people to become anchored in a reasonably fixed sense of self and corresponding worldview. The decrease in traditional role expectations and the increase in globalization have made the process of identity development challenging and less straightforward than in times past (Buckingham, 2008). However, the growing popularity of cyberspace has created new ways in which this process can unfold. Blogs offer another route for this exploration to occur, one that is simultaneously defined by adolescents themselves and influenced by the societal structures that led to the creation of this new medium.

Eco-cultural Interpretations

The majority of blog content analyzed for this study was made up of self-reflection, with social communication being secondary. While cyberspace and the social network sites that reside there have created new forms of social connection and
communication, blogs offer adolescents a realm where they can explore their emerging worldviews by looking within themselves and giving voice to their exploration. The way in which this realm allows others to read one another’s reflections, comment upon them, or share their own thoughts leads to the possibility of social validation, which has been reported as a motivator for adolescents who use this medium (Stern, 2008). Self-expression of this kind also provides the opportunity to release emotions in a safe, non-threatening way, which could be salient for adolescents who are experiencing the intensity of awakening sexuality, among other feelings. Negative emotions were expressed with more frequency than positive ones, and often were in response to conflict with a romantic interest, suggesting that blogs were perceived as a safe outlet for heterosexual adolescents when they were feeling vulnerable. Emotional and intellectual self-expression was more frequently the subject of blog writing than either relationships or the daily details of blogger’s lives. However, all of these topics reflect the eco-cultural acknowledgement of the way that societal norms influence the transmission of knowledge and the means with which adolescents go about the business of development. The reprinted material in particular communicates mores and standards, as it constitutes a general sharing of macro-level information in the form of commentaries, jokes, and stories. With its capacity to provide forums for intimate communication and community-level interaction, the Internet seems uniquely capable of serving a multitude of adolescent developmental needs.

Adolescent cyberculture is not only shaped by the developmental needs of this life stage, but is in turn an influence on such transformations. Middle class children’s lives are becoming more fragmented and harried as the number of expected extracurricular
activities and lessons increase along with adult-structured leisure time (Ehrensaft, 2001). The increase in structure coincides with a decrease in unrestricted access to public space. This lack of “offline” privacy makes the online community of adolescent cyberculture more attractive and liable to be used extensively by adolescents (boyd, 2008). The heavy use of computer games and social network sites in turn decreases the demand for offline public space, as more adolescents log high numbers of hours on their computers, often while alone in their bedrooms. The result of such a circular pattern of influence is a new form of social activity, cybersocializing.

Technological Inequality

If it is true that technology is not in itself a “driving force of social change” but rather part of “much broader social and historical developments” (Buckingham, 2008, p. 10; Turkle, 1995), what does it mean that there continues to be a gap between those adolescents with access to computers and high speed Internet connections and those without? Known as the digital divide, this gap reflects the continued inequality that exists between high and low-income school systems and families (Becker, 2000). Computer literacy is necessary for employment as well as inclusion in U.S. society, and there is evidence to suggest that minority children, who are overrepresented in low-income communities, are not receiving the education necessary to compete in technology-driven markets. While most schools at this point do have computers, low resource schools do not always have them located in classrooms, or possess Internet access (Shields & Behrman, 2000; Valadez & Duran, 2007). Empirical evidence also points to a difference between middle class and poor children in the way computers are used. High income schools use computers to support sophisticated exercises building higher ordered thinking skills,
while low-income schools use them for repetitive practice of basic skills (Becker, 2000). Therefore, while access to computers continues to grow for low-income families, the ways in which they can be used, and the negative consequences that stem from those limitations, continue to flourish (Valadez & Duran, 2007). This has led to the expansion of the definition of the digital divide from one of lack of access to one including the social ramifications of the differences in use (Valadez & Duran, 2007). What, if any, deficits exist for those adolescents who are not able to participate in social network site membership or able to spend significant time on the Internet? Would such deficits affect social or identity development in any significant way, or in a different way than their more privileged peers? Is there greater ethnic equality in the use of other social technologies, such as cell phones, that mediate any potentially negative social affects of the digital divide? At the time of the completion of this study, no such answers are available.

Ethnicity, Gender, Age

The majority of bloggers randomly selected out of the 383 available MySpace profiles identified their ethnicity as Caucasian, and there were no African American or Asian bloggers listed. Despite the fact that only half of all bloggers chose to list their ethnicities (17 out of 30), it would be expected, based upon recent surveys that suggest nearly ubiquitous Internet use (93%) among adolescents, that other ethnicities would be represented (Lenhart & Madden, 2007a). However, this study was not measuring Internet use but rather blogging activity through MySpace accounts; there may be cultural differences in who blogs and who does not, or who uses MySpace and who does not. There are versions of MySpace designated for specific ethnicities, such as MySpace
Latino, that may attract more adolescent users who identify as Latino or Latina. However, a study conducted in 2006 for the Pew Internet and American Life Project reported that 28% of all adolescents who were surveyed reported maintaining a blog, up from 19% reported in 2004 (Lenhart, Madden, Macgill, & Smith, 2007c). The study also reported that 42% of all adolescents who use social network sites also maintain a blog. This relatively high percentage of potential MySpace bloggers implies that more ethnicities would be represented in the sample.

Other demographic characteristics of the sample were within expectations set by recently conducted survey research. For example, the percentage of adolescents who are considered “content creators” due to their blogging activity or website creation has been found to increase with age, from 45% at ages 12 through 14 to 55% by age 15 to 17 (Lenhart et al., 2007c). The study’s potential blog pool that resulted from data mining yielded no bloggers aged 14 or 15, and the majority of bloggers in the study sample were 17 years old (90%). It is unclear if the homogenized nature of the sample is in fact representative of adolescent bloggers, since no demographic information could be found for that group, and there is the possibility that bloggers may lie about their age.

The bloggers in this sample were primarily female (87%), which corresponds with recent surveys conducted on adolescent blogging behavior (Lenhart et al., 2007c). The exponential increase in blogging is attributed almost entirely to the increase in females using this medium (Lenhart et al., 2007c). The lack of male involvement suggests that there are gendered differences in the developmental process, which would influence online behavior. However, studies examining differences in how females and males use the Internet have resulted in contradictory findings. Recent studies have failed to find
differences in rates or type of usage (Gross, 2004; Stefanone & Jang, 2007; Valkenburg & Peter, 2007b) but other studies have in fact found that gender does influence computer use (Hargittai, 2007). Younger boys are more likely to participate in social network sites than girls, but girls are more likely to do so once they enter middle adolescence (boyd, 2008). Adolescent males were found to be more likely to create video content and download it to sites such as YouTube, where it is available for public viewing (Lenhart et al., 2007c) and to decorate their personal home pages differently than females (Doring, 2002). Conceptions of privacy seem to differ by gender as well. Males who are social network site users tend to put more identifying information on their profiles such as phone number or address, but were also more likely to post false information (Lenhart et al., 2007c). Females, on the other hand, were less likely to post identifying information but more likely to post photographs of themselves and their friends (Lenhart et al., 2007c).

Differences in developmental processes may be useful in interpreting the gender demarcations found in some studies. Girls experience more sexual abuse and assault than boys (Harms, 2005); the experience of victimization or the knowledge of this occurring to others may account for the tendency to post less personal information on profile pages. However, the female image is used extensively in magazine and television advertisements. There is a focus in popular culture on women’s appearance, illustrated by fashion magazines which dictate changing ideals of feminine beauty. Looking at adolescent girls’ profile pages in this context creates an expectation of many posted photographs as they seek to explore their status as desirable, successful females.
Identified differences in coping strategies may also illuminate the lack of male involvement in blogging. Males have been found to respond to stress by using action-oriented strategies that are focused on carrying out specific tasks, or by avoiding the source of stress by distracting, or paying attention to other thoughts or activities (Harms, 2005). Females, on the other hand, have been found to look for social support to help them evaluate their stressors (Harms, 2005). Females are also more likely to engage in rumination, or “self-focused attention,” which can be cognitive or emotional in nature (Broderick & Blewitt, 2003, p. 318). Ruminating is a way of “responding to problems by directing attention internally toward negative feelings and thoughts” (Broderick & Blewitt, 2003, p. 318). Gender differences in friendship patterns reflect these coping differences, with males tending to focus more on doing activities together and females focusing on building relational intimacy (Harms, 2005). This results in the maintenance of more extensive social networks for women (Harms, 2005). Since the majority of blogging activity is comprised of writing down one’s thoughts and feelings, pondering personal issues and daily events, it could be described as reflecting female ways of being more than male. This would also explain why some studies have found more female adolescents use social network sites than males (boyd, 2008). Since females tend to maintain larger social networks, it stands to reason that they would find social networking sites a positive and socially useful technology.

Other online activities may be more reflective of male socialization and physiology. Video games could be seen as a vehicle for employing distraction, which could contribute to the preponderance of males who engage in this activity. There is also evidence that males and females experience game playing differently, with the reward
centers in the brain showing more stimulation for males (Hoeft, Watson, Kesler, Bettinger, & Reiss, 2008). This suggests that perhaps males and females feel stimulated by different online activities and partake in them accordingly.

Limitations of the Study

Usually, one of the benefits of content analysis is based upon the archival nature of the material under review. Since it was originally generated without the expectation of future scrutiny, there is little cause for attempting to appear in a more positive light than would be accurate. However, despite the archival nature of blog material, its public nature implies that content is, at least to some degree, for the consumption of an audience. For that reason, there is an inherent potential for inauthenticity at all times. The ways in which this may have had an impact on blog content is unclear and cannot be known. The kind of adolescent who is comfortable sharing thoughts and feelings with a potentially global audience may be qualitatively different from those who would not choose to do so. For that reason, the study sample may not be representative of adolescent social network site users. For the same reason, those who choose to blog through their potentially highly trafficked MySpace sites may be qualitatively different from those who create their own blogs which would require greater chance or specific knowledge to locate. Since this study represents an initial exploration into the phenomena of blogging, only general research questions were asked. It was important to capture the experience of the average adolescent, rather than examine a specialized population that possesses the computer skills necessary to create their own blogs. The fact that maintaining a blog on MySpace requires no knowledge of special software or web design
was thought to result in a more “average” sample of bloggers than those with more computer-based knowledge.

Another threat to the transferability of the findings is that only one social network site was examined. MySpace is the most popular of existing sites and as such has the most potential to provide a representative sample. However, if the scope of the study was such that a percentage of blogs from different sites could have been examined, it may have resulted in different findings. While the blog entries were very easily organized according to type of developmental task faced in adolescence (i.e., social or identity development), there was a great deal of variation in the sub coding of the material. As a result, it is difficult to illuminate trends because each category of subcode houses a small amount of data. Increasing the overall number of blog entries used for data analysis could serve to clarify patterns and potential new themes.

Future Research Recommendations

The study data’s triangulation with other empirical investigations and the researcher’s experience with adolescents and knowledge of development has safeguarded the trustworthiness of the results. However, questions have emerged that merit exploration in their own right. There were some indications that the blogging experience, or access to the technology that would allow such an activity, may not be the same for all adolescents. The lack of non-Caucasian bloggers could be a useful starting point for future research. There is a possibility that blog entries culled from specific ethnic groups might reveal different themes and patterns of communication. Comparing the possible differences among a variety of ethnic groups could shed light on the effects the digital divide is having on the social or identity development of low-income adolescents. Such a
comparison would also allow data to be analyzed within the context of cultural
differences.

Another conspicuous absence from the study sample was the presence of male
bloggers. As the examination of gender differences in social development revealed, there
might be some physiological explanations for why fewer adolescent males blog than
females. However, this does not automatically lead to the assumption that male-created
blog content would be different in any way from females’ entries. An investigation of
male blogs could yield some interesting differences in communication patterns or topics
of discussion. The blog content could be reviewed from within a social development
context, which could potentially provide more information about how different males and
females are, at least during adolescence.

For those people who were born prior to 1977 and who experienced different
kinds of communication and socializing tools while young, new social media technology
can seem alien and possibly leading to the dissolution of traditional social skills.
Cyberspace can seem like a foreign land with a different language and different norms
and assumptions. In many ways this is exactly what it is, and therefore it is important for
those who work with adolescents, such as counselors and educators, to become familiar
with the environment where their clients and students are most fluent. As is appropriate
when investigating a new phenomenon, qualitative techniques can be applied in future
research to help inform those who work with younger clients. Those studies that are
phenomenological in nature, which seek to illuminate the lived experience of others,
could provide a peek into the adolescent world of social network sites such as MySpace.
Forthcoming studies that allow adolescents to describe their own experience with social
media and blogging specifically would offer a unique opportunity to have
cybersocializing framed by those who engage in it the most. Allowing adolescents to
define for themselves the nature of their online lives would not only be potentially
empowering for them as co-researchers, but could provide information that cannot be
gleaned from other sources.

Considering the way other communication technology is used could also yield a
wealth of information regarding how developmental processes are enacted in different
contexts. To that end, conducting a similar study on the content of text message-based
conversations could provide interesting comparison data. Conducting a content analysis
on text conversations beyond the linguistic ones completed to date could show how social
interaction reflects specific social developmental tasks, and if those are changing to
accommodate the specific characteristics of text message based language.

Just as text message content could allow researchers to focus on one particular
aspect of adolescent development, so could conducting studies that narrow the focus to
particular manifestations of development. For example, this study found evidence
suggestive of explorations of intimacy and moral development within the sample blog
content. Increasing the number of entries examined and investigating each one of those
manifestations alone could perhaps reveal more subtle examples of how those activities
emerge during adolescence. Asking bloggers to reflect upon aspects of their development
could provide an additional dimension to research findings, as this is the arena where
such processes are increasingly being conducted. Finally, future research could be
directed at the ways in which counselors could use blogs as vehicles for clients’
therapeutic growth. The specific implications this study has for counselors and how that
contributes to future research recommendations will be discussed in the following section.

Implications of the Study

This investigation was carried out within the context of counselor education. The profession of counseling is bound by ethical codes of conduct which provide guidelines for working with clients. Among those is the expectation that counselors will maintain cultural sensitivity in all aspects of practice, including obtaining informed consent, building a relationship, and using diagnostic and assessment techniques (ACA, 2005). In order to be sensitive to the way culture may impact the counseling process, counselors must first be aware of the unique elements of a various cultures, particularly those most common in the area in which the counselor practices (McAuliffe, 2008). In some ways cyberspace is its own culture, with social network sites being a subculture, replete with its own norms and values. Creativity and popularity are valued, with expectations that larger friend lists communicate one’s status; language and conduct can be informal and disinhibited, sexually explicit and “retaliatory” (Rainie, 2006, p. 4). Being simultaneously engaged with multiple technologies is common, which blends the boundaries between homework and socializing (Rainie, 2006). If effective counseling starts with where the client is emotionally and conceptually, counselors must know how to start their work with cybertulture in mind. This study seeks to contribute to the general understanding of what adolescents do when they are blogging in hopes of showing points of intersection between the counselor, the therapeutic relationship, the Internet, and the adolescent client.
While there is some speculation that social media is changing the way we think about friendship, maintain relational connections, and socialize, there are still many traditional activities being conducted online, albeit in a new way. Adolescents’ peer groups become inordinately important and they can spend much of their time in communication with them. Traditionally, this has happened on their home telephones, through notes passed during class at school, and at social events. Now, it is more likely to happen online, through instant messaging, texting on cell phones during class, and posting “notes” on peoples’ profile pages, along with face-to-face encounters. Adolescents are still grappling with understanding who they are in relation to others and the world at large, and this is happening through their computer use as well as their relationships with their families, teachers, and community members. A growing number of them are also engaged in this process when they use blogs to reflect on their thoughts, feelings, and experiences.

In this new context of cyberspace, there is a tension between public and private life that is unique to the Internet. It can be confusing to consider personal communication or expression such as the blog content found in this study inhabiting the same “space” as more public media such as profile pages. This investigation suggests that adolescents understand the fact that some types of information are more worthy of protection, but also that they are making less of a distinction between types of media and their tiers of public access. Therefore, the notions of public versus private, intimate versus broadcasting, are less well-defined as they are taking place within the same environment. However, some differences in the mediums used to transmit information do remain, which means that some types of social media are more conducive to private
communication than others. Social network sites are more easily accessed by strangers and those randomly surfing sites than the blogs, which are housed within a person’s profile page. This distinction demarcates blogs as a particularly private medium.

The fact that strangers do have access to at least some personal information and can easily attempt to initiate contact with those online has created concern for the safety of its users. The most recently published research on adolescent Internet use has debunked some of the myths associated with the ways youth are vulnerable to harm while cybersocializing. Most importantly, it has clarified that those who frequent social network sites the most, adolescent females, are the most at risk (Wolak, Finkelhor, Mitchell, & Ybarra, 2008). Targeted by adult men, they are lured by promises of love and romance but are usually exploited for sex (Wolak et al., 2008). This research exposes the very real dangers of being on sites such as MySpace and make it all the more important that counselors be informed of what exactly adolescents are posting to the blogs they maintain on such sites.

The findings of this study suggest that adolescents are using blogs as a medium through which they can participate in the essential tasks needed to achieve a sense of self. For that reason, blogs are potentially a medium through which the benefits of counseling can be enhanced. For example, counselors can capitalize on blogs or a client’s interest in blogging, using them alongside other more traditional interventions. The use of such a salient medium will potentially enhance rapport and clients’ sense of being understood by the counselor. In ecological counseling terms, “contextualized help giving that is dependent upon the meaning clients derive from their environmental interactions” has the most potential to be beneficial (Conyne & Cook, p. viii).
Counselors working with adolescents can incorporate blogging into their clinical work, whether it takes place in a group or an individual setting. Clients could be given the assignment to begin keeping a blog, posting new entries on a regular basis. These could be accessed by other group members, and group discussion could continue past formal session time. Conversely, clients could begin to keep blogs in order to track their thoughts and feelings related to their therapeutic processes and bring in printed portions to share with their counselors. The blog content could serve as the starting point for discussion, or as a way for the client to continue to explore issues in the time ensuing between sessions. Maintaining a blog could also serve to increase adolescents’ ability to regulate their emotions. It has been reported that those who write about their thoughts and feelings become used to processing emotions before taking action (Stern, 2008). Introducing a way to insert a step in between feeling and action could be a highly effective tool in treating adolescents with substance abuse or conduct disorders. Creating content that someone else is interested in and paying attention to, whether it is the counselor or a reader from the audience in cyberspace, could also transmit feelings of worth that clients are not receiving elsewhere.

It is also possible for counselors to use blogging themselves as a beneficial therapeutic tool. Counselors could use their own blog as a model for how to process emotions or apply cognitive interventions to problems, such as thought stopping and substitution. Giving clients access to a therapeutically driven blog could help to educate them and support their ongoing process. It could also serve as an Internet marketing device, letting others know of your availability as a counselor and giving potential clients a preview of what kind of work to expect.
Counselors are increasingly seen as being advocates for their clients and are expected to be committed to working towards social justice (Constantine, Hage, Kindaichi, & Bryant, 2007). Teaching clients how to become proficient in using the Internet and creating blogs would give clients additional methods for enhancing their overall quality of life. Offering adolescent clients from low-income families time to use a computer would allow their use to be monitored and help them to maintain the social connections their middle class peers enjoy. As has been suggested, low-income adolescents’ need to attain fluency in new technology is directly related to their ability to secure high quality jobs in the future (Valadez & Duran, 2007) and keep them socializing within the same context as their higher income peers. Exposing clients to blogging as a potential medium of self-reflection and expression could prove to be beneficial to their therapeutic process and their social and identity development.

Adolescents are considered to be the “natives” of cyberculture, compared to the “immigrants” born before 1977 (Presky, as cited in Buckingham, 2008, p. 6). Having much of their social lives occur in cyberspace seems normal in ways it may not to those over the age of 30. As adolescent Internet use grows and becomes more sophisticated, so does the importance of “establish[ing] an online presence” (Stern, 2008, p. 101). This presence, which must be crafted and performed, is potentially visible to a large number of unrelated people, known as a “patchwork audience” (Doring, 2002), and therefore more difficult to manage. Is this “virtual identity” (Turkle, 1995, p. 210) authentic, as it can be re-defined and presented differently, through updated profile pages, at will? There is no easy answer to such questions related to self-presentation. Since adolescence is a time of experimentation, it is not necessarily imperative that all of their Internet content be
authentic. However, this mutability of identity could create confusion or a lack of a sense of a core self. Counselors who are sensitive to the nuances of a virtual identity could provide adolescent clients a means to reflect on such issues and help them to recognize what is truly genuine and lasting about themselves.

*Ethical Use of Technology*

If blogs are to be used as a therapeutic tool, it is important that ethical practices related to confidentiality be maintained. As stated in Chapter 3, the extent to which publicly archived material should be safeguarded is still under dispute. The study results suggest that adolescents are well aware of the potentially public nature of what they post and censure their entries accordingly. However, there was also evidence of an expectation that friends are the primary audience. Therefore, in the interest of maintaining rapport, I recommend always asking before accessing a client’s blog. Viewing a client’s social network site profile page is less private and not as subject to confidentiality safeguards. It has been my experience that adolescents are excited to share their online lives with those who are interested, whether they are adults or peers, unless they have posted pictures that suggest alcohol or drug use. If an adolescent client seems wary upon a request to see a profile page or blog, it could warrant an investigation of their use of controlled substances or other illegal behavior through discussion and confrontation.

*Conclusion*

The rapid rate of the integration of technology into all aspects of modern life has many consequences. For some, new forms of communication technology have led to the “spillover” of work into home life (Chesley, 2005, p. 1237). This lack of clear boundaries between work and personal life seems to have negative consequences, such as stress and
a decreased sense of satisfaction, particularly for women (Chesley, 2005; Jackson, 2002; Lopez-Pacheco, 2003). For others, technological advances have lessened the amount of time spent away from family (McGinn, 2006). Adolescents have been the most active adopters of new technology, which has led to some concern over the safety of such prolonged time spent in cyberspace or the vulnerability to victimization such use could imply. It has also spawned the development of a new role for adolescents, as translators of new mediums for their families. Adolescents, more than any other population, are changing their social practices, shopping habits, and recreational activities, through their use of new technology. These changes have captured the interest of researchers who recognize the relationship between adolescents and the Internet as being without precedent in contemporary U.S. society.

Adolescence, perhaps more than any other life stage, can be a dramatic transformation fraught with intensity and, at times, conflict (Broderick & Blewitt, 2003). The turmoil experienced by adolescents and their families as they progress through pre-occupation, self-consciousness, mood swings, and the struggle for greater autonomy can be a disruptive and divisive force (Karpov, 2005). However, this is certainly not true across all cultures and families, and for many this epigenetic process is a trouble-free blossoming of adulthood and a more fixed sense of self. Technology, as a socially shaped tool, has grown in popularity to the degree that sociologists have redefined development “as a process of coevolution of technology and society” (Steward & Williams, 1998, p. 270). This implies the integration of technology use across all life stages. The future may indeed solidify technology as a powerful context within which development occurs. To date, it appears that adolescents are using the mediums at their disposal to enhance the
behaviors that lead to maturity, with a sophisticated ability to navigate the permeable boundaries between public and private life. The expertise that comes with being native to a particular technology allows adolescents to change technology to fulfill their needs as much as it reflects their adaptability to new mediums. The nature of development will shift over time in response to changing cultural and environmental norms, but the essential needs of adolescents will remain unchanged: the ability to form intimate relationships with others, and the ability to know oneself in relation to others. Social and identity development occurs through interactions with family and friends, the forming of romantic relationships, the exploration of sexuality and morality, and self-reflection. Adolescents use technology-driven mediums such as social network sites and blogs to facilitate relationship building and self-exploration. The global nature of the Internet exposes youth to potential friends and audience members from around the world, all of whom will play a role in each other’s maturation and transformation into adults.
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APPENDIX

Code Explanations
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Content Codes

Intended Audience: IA

This content code signifies to whom the blogger is directing the specific blog entry.

IA Subcodes:

FA Directed to family in general, parents, or a family member in particular
FR Directed to all friends in general or a particular friend
RI Directed to a boyfriend/girlfriend or general romantic interest
UG: Directed to an unspecified or general audience (such as directed to “All”). This subcode is used when it is unclear to whom the blogger is directing communication.
UI: Directed to an unspecified, single individual, most often referred to as “you.”

Communication Method: COMM

This content code refers to the actual style in which the blog entry is written, such as a poem or a series of sentences.

COMM Subcodes:

L: This subcode refers to a list, usually a reprint from Internet circulation or numbered characteristics or descriptions such as “10 facts about myself” or “New Jersey friends versus California friends.”
P: Original poetry, to be distinguished from more ambiguous free verse.
S: Statements that do not form a narrative or tell a story, but stand alone or merely describe a situation or feelings.
N: The blog entry tells a story of an event or experience in a narrative fashion.
**FV**: This subcode refers to a common blog style. Rather than use complete sentences, the entry is comprised of statements that are written as short phrases, the result of which is not a formal poem, but rather a free form type of stream of consciousness writing style.

**PL**: This refers to a reprint of a personal communication, such as a letter or a note that someone has sent the blogger.

**R**: This subcode refers to content not created by the blogger. Frequently bloggers will re-post material they have found elsewhere online, either on another person’s blog or circulated by way of email. This is often the result of time spent “surfing” the Internet. Specific categories of this subcode include: jokes (j), stories (s), news items (n), poems (p), facts (f), song lyrics (l), quotes (q), lists (l), or personal communication (pl), such as the reprint of a letter received by the blogger.

**Subject: SUB**

This content code specifically refers to about whom the blogger is writing. Pronouns were used as a guide (“you” or I/me/min”).

**SUB Subcodes:**

**S**: The blogger is either writing about him or herself, or has posted a reprint of something and made a comment about enjoying it (expressing own feelings or thoughts about it rather than about the content of the piece)

**RI**: This subcode refers to the bloggers romantic interest. This could refer to either a boyfriend or girlfriend, or a person in whom the blogger is interested but with whom no formal romantic relationship has been established.

**FA**: The blogger is writing about his or her family in general, parents only, or a
particular family member

**FR:** The blogger is writing about his or her group of friends or a friend in particular.

**A:** If the subject about whom the blogger is writing is ambiguous or unclear this subcode is used, such as when an original poem’s main idea or subject is enigmatic.

**G:** The blogger is writing about those in his or her general social environment such as peers, but does not designate a particular group.

**GO:** The blogger is addressing members of their community or society as a whole.

**Situation: SIT**

This content code refers to what event, occurrence or feeling about which the blogger is writing.

**SIT Subcodes:**

**R:** This subcode is used when the blogger has reprinted non-original material but has not made any comments about it. The same codes are used here as for reprints in the communication method section.

**E-L (p & n):** When the blogger is expressing feelings about love, both positive and negative. This includes expressing romantic feelings towards another or oneself as a romantic partner.

**DR:** If the blogger is writing about drinking alcohol or using illicit drugs or explaining the rules of a drinking game this subcode is used.

**M-SO:** This is used when the blogger is musing about society in general or specific aspects of US culture.
S-R: When the blogger is providing a series of facts about himself or herself, usually, but not always, in list form. This is frequently done as a result of being “tagged.” Tagging refers to a friend or reader requesting ten facts about you. They are expected to be random and unusual in nature. This subcode also refers to lists or descriptions of personal preferences.

E-FO (p & n): When the blogger is expressing feelings about a non-romantic other, such as friends, a specific friend, family or a family member. This can be positive or negative. If no qualification is listed, it is considered to be neutral in tone.

EV: This subcode refers to a straightforward recounting of an event or experience. This usually occurs in a narrative format.

F: When the blogger is letting it be known that she or he is interested in having a romantic partner. This was used primarily by females and was listed as a questionnaire with queries such as “Do you like my hair/eyes/body?” and “Would you take me to the movies and walk in the rain with me?” This subcode refers to “fishing” for signs of romantic interest on the part of the blog readers.

C: This subcode occurs when the blog is concerned with the college application process, college evaluation, or high school events or semester schedules.

A: If the situation about which a blogger is writing is unclear, this subcode is used.

M: This is a miscellaneous subcode for situations that can not be covered by any other subcode.

D: If the blogger is writing about the death of a pet or loved one, or about death in general this subcode is used.
Thematic Codes

Quotidian: QO
Communication about everyday events, such as school, work, hobbies

QO Subcodes:
W: Work
S: School
H: Hobbies

Identity: ID
Communication that is essentially self-expression more than trying to communicate about an event or about/to a person or persons. Reprints fall here because the subject had to pick it and relate to it in some way to post it.

ID Subcodes:
FG (p&n): Feelings expressed in a general way. Can be positive (FG(p)), negative (FG(n)), or neutral (FG).
FN: Feelings expressed around a specific idea, event - negative
FP: Feelings expressed around a specific idea, event - positive
FS (p&n): Feelings expressed about the blogger him or herself, can be positive or negative or neutral.
FL (p&n): Feelings expressed about the nature of feeling of being in love, in a positive, negative, or neutral manner.
TL (p&n): Thoughts expressed about the nature of love, in a positive, negative, or neutral manner.
**T-WE:** Thoughts the blogger is expressing about world events or society in general.

**T-PM:** Thoughts the blogger is expressing that are philosophical in nature, or poetic in nature without being specifically related to love or the self or a specific other.

**SR:** Thoughts or feelings (or reprints) that are concerned with religion or spiritual themes. This can be an expression of personal feelings or general thoughts.

**DWW:** Desires/Wishes/Wants: This subcode refers to expressions of wanting a specific thing or wishing that something in the blogger’s life could be different.

**MKSO:** Make Self Known to Others: this is for reprints, lists, or preferences that are written to specific others or specified as sharing general info about self to audience; different from expressing general feelings or thoughts.

**A:** If the blogger’s self-expression is inexplicable or unclear the Ambiguous subcode is used. This occurs frequently with obscure original poetry, or song lyrics.

**D:** If the blogger is expressing either thoughts or feelings about death, either the death of a friend or loved one, or the concept of death.

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**Social: SOC**

Relational in nature, whether it is talking about an experience with someone or the loss of a relationship, feelings about others, description of conflict with another or others, or conflict within the blogger in regards to another/others.

Each category of person the blogger could be writing to or about in his or her blog is broken into several qualifiers. If none are listed, the writing is neutral

**SOC Subcodes:**

Social sub codes are divided into categories of relationships.
G (p&n): If the blog is concerned with relating to unspecified others, either in a neutral (G), positive (G-p) or negative (G-n) manner.

FA: Family or a specific family member

FR: Friends or a specific friend

RI: Romantic Interest

AO: Ambiguous Other. The subcode is used when nature of the blogger’s relationship with the individual is unclear.

For each relationship, the following codes referring to the nature of the expression could be applied: complimentary (CP), negative (N), positive (P), signifying a conflict between the blogger and the other person or people (C-B), signifying a conflict within the blogger related to the other person or people, such as unrequited love or confusion (C-W), lamenting a mistake or problem with a relationship (L), or related to grieving or the death of a person or people (D).