

**A REVIEW OF ONLINE SOCIAL NETWORKING
PROFILES BY ADOLESCENTS:
IMPLICATIONS FOR FUTURE RESEARCH AND
INTERVENTION**

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ABSTRACT

This study explored content posted and interactions taking place on adolescent online social networking profiles. Although "blogging" continues to soar in popularity, with over half of teenagers online participating in some form, little research has comprehensively explored blog communication within the context of adolescent development. Content was qualitatively coded from 100 randomly selected profiles authored by adolescents between the ages of 16 and 18. Rich thematic elements were identified including family and social issues, risk behaviors, disclosure of personally identifiable information, and frequent peer interaction. Results indicate adolescent blogs frequently contain appropriate images, positive comments about parents and peers, athletics, a variety of risk behaviors, and sexual and profane language. In addition, school type was examined (public versus private, religious) as a potential factor in understanding the differences in content posted by adolescents; however, no significant differences were found. Implications for parental monitoring and intervention are discussed as well as direction for future research. Adolescents' online profiles contain a wealth of intimate, candid, and publicly available information on a wide range of social issues pertinent to adolescence that contribute to the understanding of adolescent development and well-being.

The Internet has earned its own niche in social research (Greenfield & Yan, 2006) and the newest phenomena of online social networking is rapidly developing its own field of inquiry in the social sciences (Herring, Scheidt, Wright, & Bonus, 2005; Mee, 2006). In fact, researchers are scrambling to understand the phenomenon almost as quickly as the technology advances. Mazur (2005) defined blogs as updateable public records of private thoughts. As our knowledge of this new social forum advances, research is beginning to differentiate between social networking sites and blogs. However, for the purposes of this study, blogs, web journals, and social networking profiles are

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considered synonymous as they all involve individuals creating and maintaining personal Internet sites allowing authors and other users to post content, thus creating a personal network.

Lenhart and Madden (2007), senior researchers for the Pew Internet and American Life Project, said that in the past five years social networking has "rocketed from a niche activity into a phenomenon that engages tens of millions of Internet users" (¶ 3). Previous studies have examined surface content found in various web journal forums such as demographic information, communication styles, thematic content, purposes for blogging, and disclosure of personally identifiable information—also referred to by Huffaker (2006) as identity vulnerability (Lenhart & Fox, 2006; Fox & Madden, 2005; Subrahmanyam, Smahel, & Greenfield, 2006; Huffaker & Calvert, 2005; Mazur, 2005; Herring et al., 2005; Mee, 2006). However, to date there has been very little research on dynamic social and emotional content provided in blogs and how such content relates to adolescent development, peer relationships, and indicators of emotional well-being. The present study proposes that online social networking profiles posted by adolescents contain intimate, candid, and observable self-disclosure and peer interaction that can be analyzed creating an overall picture of adolescent behavior, highlighting specific areas needing additional research, and addressing implications for parental monitoring and intervention.

ADOLESCENT SOCIAL NETWORKING

Fifty-five percent of teenagers online use and create online social networking profiles (Lehnhart & Madden, 2007). With more than half of teenage Internet users interacting online, the concept of blogging is a salient research topic investigating what adolescents are blogging about, how they are socially interacting, and what potential effects this phenomena may have on other dimensions of their lives.

Social networking profiles present a unique research opportunity as the process of blogging involves individuals voluntarily posting information about themselves—personal thoughts, feelings, beliefs, activities—in a public arena with unlimited access for anyone with an Internet connection. The amount of personal information contained in a blog is completely dependent on the author's judgment. This situation is ideal for social scientists as it allows unobtrusive observations of authentic human behaviors and interactions with no "real" contact or interference. Adolescent blogs are full of information about their daily lives (Mazur, 2005) documenting whatever they choose to disclose

about themselves and any subsequent written interaction by individuals posting comments to the blog. A recent study involving adolescents and the Internet sums up the communication medium's impact and potential:

The Internet is more exciting and challenging as a research environment than earlier media because it is a complex, virtual, social, and physical world that children and adolescents participate in and co-construct, rather than something that is merely watched or used such as television or personal computers. It becomes a complex virtual universe behind a small screen on which developmental issues play out . . . offering new views into the thoughts, feelings, and behaviors of children and adolescents (Greenfield & Yan, 2006, p. 393).

Themes often permeating adolescent blogs include romantic relationships, friends, parents, substance use, sexuality, popular culture, eating disorders, school, depression, conflicts, self-expression, and self-harm (Mazur, 2005; Whitlock, Powers, & Eckenrode, 2006). Blogs have become a standard form of teenage communication comparable to cell phones, email, or instant messaging (Mee, 2006). The difference between blogging and other forms of communication is: (1) they are accessible at any time, from any location, (2) they leave a trail of observable dialogue that can be printed or stored, and (3) they incorporate advanced multimedia components. Adolescents have the ability to construct a personal profile or online environment, depicting how they view themselves or how they want others to view them.

It is unwise to write off Internet communication as superficial or unconnected to real life. Symbolic interactionists would argue that blogging is as meaningful to adolescents as they believe it to be and plays as large a role in their life as they allow. White and Klein (2002) proposed that "the more individuals put into something, the more they get out of it [*sic*]" (p. 68). The more an adolescent participates in blogging activities, the more importance they are likely to associate with it. The words on the screen have as much power as they are assigned by both the author and the reader—thus developing co-constructed meanings. An ecological perspective makes this method of communication even more complex by appreciating that while teens are unique individuals sitting at a computer typing their thoughts, they are also students, children, employees, and citizens, with various rules, regulations, codes of ethics, and standards of behavior attached to each identity. Online communication has the potential to interact with, affect, or be influenced by all other spheres of life.

According to Lenhart and Fox (2006), as reported in the Pew Internet and American Life Project, the top two reasons individuals create blogs are for creative self-expression and to document and share personal experiences. These reasons are even more significant for adolescents as they actively explore new forms of self-expression, identity development, and social interaction (Kidwell, Dunham, Bacho, & Pastorino, 1995). Some researchers attribute the popularity of reality television shows with adolescents' comfort in sharing intimate details of their lives with a global audience in real time (Mee, 2006). Perhaps online social networking tempers the Eriksonian concept of antagonism between adolescents and their environment. Nearly two decades ago, he acknowledged that new forums for growth and formation would arise, thus necessitating adaptable and progressive traditions to maintain a normative, expectable developmental environment. In 1968, he said, "Today, when rapid technological changes have taken the lead the world over, the matter of establishing and preserving . . . an 'average expectable' continuity for child rearing and education everywhere has, in fact, become a matter of human survival" (p. 222). In order to develop and maintain the ego, adolescents seek "conflict-free energy in a mutually supportive psychosocial equilibrium" (Erikson, 1968, p. 223)—a desire online social interaction has great potential to fulfill.

The Internet provides an unrestricted laboratory setting for adolescent identity experimentation as they seek to understand how they fit into the world around them. Concurrently, the Internet is a functioning community involving personal morals and regulatory processes. However, these processes are stunted if adolescents do not see their online activities as subject to any ethical code. In day-to-day "real-life" interactions, adolescents are in a constant state of checks and balances with parents, teachers and school administrators, peers, and societal norms. Their actions generate perceivable reactions that they use to gauge future decisions and behaviors. The Internet, specifically blogging, does not provide this type of "real" reinforcement or punishment. Internet standards for behavior are established via text communication normalizing or encouraging various activities or attitudes. These "invisible cyber-friendships" (Mee, 2006, p. 1) allow adolescents to co-construct the environments that will shape their psychosocial development (Greenfield & Yan, 2006).

Identity formation is a primary task in adolescence (Erikson, 1968) and young people who actively explore their identities are more likely to experience mood swings, self-doubt, confusion, disturbed thinking,

impulsivity, conflict with parents, reduced ego strength, and increased physical symptoms (Kidwell et al., 1995). These indicators of identity exploration are generally observable in adolescent self-disclosure and peer relationships. As adolescents explore their identity, they will go through behavioral patterns that on the surface may appear to be cause for concern, but are actually developmentally appropriate and healthy. This may explain why certain risky behaviors and discussions observed online look like "an adult's worst nightmare" (Mazur, 2005, p. 9), but may be a positive and safe outlet for self-expression and experimentation. Adolescents who feel they have lost their voice or are unheard by authority figures in their personal lives can channel their energy and need for attention into their online journal, versus feeling confused, worried, negative, misunderstood, or physically acting out (Kidwell et al., 1995).

Prior research has identified specific behaviors associated with adolescence and identity exploration, and researchers have observed such behaviors in various Internet forums. For example, adolescents use blogs to communicate information via web text that would be obvious in face-to-face interaction such as gender, ethnicity, and physical appearance. Adolescents also use Internet communication to explore their sexuality. Subrahmanyam, Smahel, and Greenfield (2006) observed teenagers' chat rooms and recorded one sexual comment per minute and one obscenity every two minutes, elevating sexual content and adult language high in the ranks of what teens talk about online. Through systematic review of adolescents' online profile content, researchers hope to achieve a comprehensive understanding of how adolescents use online social networking sites and what role such sites play in teenagers' ontogenetic and social development.

METHOD

Sample

Social network profiles were randomly collected from a major hosting site with more than one-fourth of users registered as teenagers (Anonymous, 2006). Utilizing random multistage cluster sampling, 100 adolescent blog authors were selected between the ages of 16 and 18 years who maintained active networks. "Active" status was determined by frequency of profile updates and/or comment posts which had to have occurred within the 60 days prior to date of analysis. Though the term "participants" is used to refer to profile authors, there was no contact, interaction, intervention, or interference between researcher and sub-

jects as all content studied was publicly available without any special knowledge, fee-based subscription or membership, or authorization. Per regulations outlined in the host site's terms of use and privacy agreement, all website participants were required to acknowledge and consent to unlimited public access of any information posted to their profile by themselves or by anyone else.

The participants were selected based on region, school affiliation, gender, and age. Five nationally representative locations were selected, equally distributed throughout the country representing each coast as well as central, north-, and south-central regions of the U.S. Two schools were randomly selected from each state—one public and one parochial. From each school five male- and five female-authored profiles were randomly selected for review. The age distribution within the sample was purposively organized as follows: two 16-year-olds, one 17-year-old, and two 18-year-olds. Participants were also equally distributed between public and parochial high schools to determine if any content or online behaviors differed based on type of school attended. As parochial schools are founded in religious doctrine, it is reasonable to speculate that behaviors and peer relationships would differ based on school environment.

Content posted by participants was systematically coded based on various demographic, behavioral, and thematic elements. Themes were assigned based on content alone, without applying any intent or inference to the text or imagery. For example, if a comment said, "I think I would really kill myself without you," it was coded as violent—regardless of the spirit in which it was intended by the author. Similarly, sexual comments were coded based on text alone and categorized by their reference to sexual activity versus sexual language. Pre-codes were created prior to data collection for anticipated content such as gender, last log-on date (to ensure recent activity), and presence of personally identifiable information. While reviewing each profile, open codes were created to record unexpected, exploratory data such as differentiation between types of risk behaviors discussed and other unanticipated behaviors requiring unique coding strategies. Scales were in the form of questions "asked" of the profile. For example, "is there an image of the author posted to the blog?" (0 = no; 1 = yes). The majority of categories were dichotomous based on presence of any specific variables (0 = not present, 1 = present); several categories implemented multiple nominal response options.

Measures

Demographic content. The demographic characteristics of participants were classified into five categories: gender, school affiliation,

relationship status, religious affiliation, and sexual orientation. Location was also coded but was omitted from results to preserve participant anonymity. Once demographic information was obtained, each profile was reviewed for additional pre-coded content pertaining to pre-selected categories and unexpected themes encompassing an array of attitudes and behaviors.

Social content. Each unique profile was reviewed for text-based and pictorial content and captions. The 50 most recent comments posted to the authors' profiles within the preceding 60 days were reviewed for the same qualifying variables. Social variables included image (did the author post an image and was it appropriate?), family issues (positive/negative comments about parents/siblings), school issues (skipping school, collegiate aspirations, and athletics), social issues (positive/negative comments about peers), discussion of special interests such as reading, music, movies, and sports, and discussions of "parties" which were indicated by comments about prior social gatherings or specifically referenced attended "parties."

Image appropriateness. This was assessed based on a number of factors. Images labeled "appropriate" would generally include photos of an individual (assumed to be the owner of the blog) fully clothed, and not participating in any risky or suggestive behaviors. Inappropriate images generally included photos in which an individual was not wearing a shirt, pants, or was wearing provocative swimwear, underwear, or other suggestive attire. Swimsuit photos were not deemed inappropriate unless they were accompanied by sexual body position, explicit captions, or swimwear that was generally inappropriate for the age of the sample. Inappropriate activities included sexual body language or positioning usually accompanied by suggestive captions or risk behaviors such as holding weapons, fighting, or using substances. Overtly conservative images were deemed inappropriate if they were accompanied by suggestive, profane, or otherwise inappropriate captions.

Family issues encompassed comments about parents and/or siblings. Positive parent/sibling comments make positive statements about one or both parents or any sibling. Negative comments make negative or derogatory statements about one or both parents or any sibling. Coded "issues" ranged from simple statements such as "I love my dad," to detailed stories retelling positive, negative, or neutral experiences with family. Again, no comments were coded based on assumed intent, perceptions, or feelings of the author. Positive, negative, or neutral attitudes were scaled based on descriptive content alone and any obvious relationship with family cohesion or conflict.

School issues dealt with attendance, school participation, and future academic goals. A comment was coded if it referenced skipping school

or a desire to skip school. College attendance was coded if a comment or survey was posted that specifically addressed wanting to attend college (generally with a "yes" or "no" response). If a comment was posted about wanting to be a lawyer, for example, it was assumed they also wanted to attend college. Discussion of athletics, including participation in sports, was also coded.

Social issues consisted of comments relating to peers' interactions, special interests, and socialization. Peer comments were evaluated based on text provided. Positive comments: made a friendly or positive statement about a peer. Negative comments were overtly negative, derogatory, or confrontational. Each category, positive and negative, was coded based on presence which often resulted in each blog having multiple responses because both types of comments were made. Special interests included references to hobbies or enjoyable activities such as reading books, listening to or playing music, and watching movies. Discussions of social gatherings, or "parties," were coded if a comment directly referenced a previously attended "party" or other social gathering such as homecoming dance, birthday event, and club or bar attendance. The type of gathering was not discerned in coding, only the presence of the discussion.

Risk behaviors were addressed in regard to substance use, criminal activity, sexual content, profanity, and physical violence. Substance use was recorded if the profile or comment section included discussion or images of alcohol and/or drugs. Most blogs contained a survey-type question asking if participants smoked and their response was coded as either "smokes" or "doesn't smoke." Profiles that did not contain a "do you smoke" survey question were listed as "no response." Criminal activity was merely assessed as present or not present and qualitative details pertaining to type of crime was attached to the coded data.

Sexual content is a rather abstract umbrella for adolescent behavior, so responses were split into two categories: explicit/graphic language and comments referencing sexual activity. Responses that were sexual in nature but did not fit into one of these categories were coded as general sexual content. Profanity includes standard curse words as well as slang and sexual profanity. Because of the tendency for profane language and sexual language to overlap, certain terms and phrases were coded under both headings. Physical harm was recorded regardless of victim/perpetrator status. Violence was noted as present or not present if physical harm was discussed toward self or others, by self or others.

Identity vulnerability (Huffaker, 2006) is the term developed to reference personally identifiable information posted on the Internet. Such

data includes adolescent's full name (first, last), phone number, business name, online contact information (email, instant message user name), or other type of identifiable data. An "other" category was necessary as some personally identifiable data were not easily categorized such as school schedule with room numbers, general directions to home, scanned image of driver's license, etc. As blogs frequently included at least one image of the author, any information providing location or contact information could make the teenager an easy target for Internet predators. "Many (students) don't grasp that not only their friends and classmates are reading their sites, but also complete strangers who may have the worst intentions" (Anonymous, 2006, p. 25).

Peer interaction included size of personal network, frequency of interaction among "friends" within the network, and prior/past or proposed/future "real-life" encounters. The networks consisted of anyone the participant registered as a "friend"—whether they knew that person in their day-to-day lives or exclusively online. Frequency of comments was determined based on the first 50 available comments which display in chronological order, summing the time distance between posts, and then dividing by number of entries. This information is important to determine how frequently adolescents use their online social network to communicate. Finally, prior or proposed meetings reference comments that specifically state whether the participant and "friend" had met in person, a.k.a. "real-life," or whether they had made specific plans to meet. This information can be positive indicating that online socialization includes and/or facilitates live interaction between adolescents who are physically involved in each other's lives. However, it can also be negative if data infers adolescents are meeting people they have known only online or people who are not appropriate to interact with (i.e., older adults, unknown adults from out of town, proponents of risk behaviors).

Procedure

Once a sample of 100 profiles had been accumulated, each profile was reviewed following the same "script" of variables and presence of specific content recorded in an Excel database. The original HTML profiles were saved on a separate electronic storage device and numerically coded so that any identifiable information was detached from the profile data. After reviewing all profiles and posting all variable responses to the database, information was transferred to SPSS statistical software for further evaluation and analysis.

Based on thematically coded categories of adolescent blog data, a systematic review was conducted to account for behaviors, identify any

patterns between observed behaviors, and infer any possible association with type of school attended. Such data were also explored for indicators of potential dysfunction or questionable emotional states. As no significant variations were found between adolescents attending public vs. parochial school, results were consolidated to present an overview of online social networking content based on the total sample size and organized by gender. Based on the overall picture of adolescent web content, implications for future research are discussed as well as potential intervention needs/strategies for parents and educators.

RESULTS

Available demographics contained in the sample blogs indicate that the majority of adolescent profile authors reported being single (61%) or in a serious relationship (32%). The majority of these authors did not reference their religious affiliation (39%); 26% stated a Catholic affiliation; 22% stated other Christian affiliations. A substantial 75% of blog authors reported being heterosexual, 3% declared homosexuality, another 3% claimed to be bisexual, and 2% said they were unsure about their sexual orientation. Of the entire sample 17% did not include any information pertaining to their sexual preferences (see Table 1).

All profiles contained images posted by the author ($n = 100$), 83% of which were deemed appropriate while 17% were inappropriate. Examples of inappropriate images included an individual urinating, shirtless females dancing on tables with shirtless males, photos of a homemade device captioned as a "working bomb," individuals drinking alcohol as well as pictures of alcohol bottles/cans. There were also photos taken from mirror reflections of nude males with the image stopping just above the genitals, often referred to by authors and friends as their "V" because of the V-shaped abdominal muscles just above male genitalia. These "V" images typically excluded part or all of the face of the individual photographed. Some pictures were conservative in content, but were accompanied by inappropriate captions containing references to alcohol or substance use and intoxication, profanity, obscene gestures, or suggestive/sexual body postures.

Of comments made about family, 37% were positive about parents and 22% were positive about siblings; 16% of participants made negative comments about parents with negative sibling comments accounting for 2% of responses. Regarding school issues, male profiles did not contain content related to skipping school while 4% of female profiles contained the topic. Fourteen percent of males' and 13% of females'

Table 1. *Profile demographic content posted by adolescents listed by gender*

	Males (N=50)	Females (N=50)	Total (N=100)
Relationship status			
Single	33%	28%	61%
Married	2%	2%	4%
Divorced	1%	1%	2%
In Relationship	14%	18%	32%
No Response	---	1%	1%
Religious affiliation			
Catholic	13%	13%	26%
Christian-other	11%	11%	22%
Other	8%	5%	13%
No Response	18%	21%	39%
Sexual orientation			
Heterosexual	41%	34%	75%
Homosexual	2%	1%	3%
Bisexual	1%	2%	3%
Unsure	1%	1%	2%
No Response	5%	12%	17%

profiles referenced a plan or desire to attend college. Of all blogs reviewed, 58% referenced athletics in some capacity—either making participatory comments or discussing a general interest (males 34%; females 24%).

Social issues included comments about peers with 97% of the entire sample making positive statements about or to their friends; 100% of female profiles contained positive peer comments compared to 94% of male profiles. Most blogs included special interest topics such as movies, music, books, and hobbies (71%), and 40% of all blogs reviewed referenced prior social gatherings or attended “parties”—some with revealing details of participants’ activities such as this comment posted about a new club in town: “Very loose 18 ID to enter; You know how the rest goes . . .” (see Table 2).

Risk behaviors made up a significant portion of content observed from the sample, with 84% of profiles and blog discussions containing some type of risk-taking behaviors; 83% percent of profiles included discussion or referencing of substances, 81% referenced alcohol, and 27% discussed illegal drugs. Fifty-six percent of authors stated that they did not smoke. Across-sample rates of criminal activity content were near-equal with 15% of blogs discussing some type of crime; 9% of blogs referenced shoplifting or stealing, while others referenced rape, selling drugs, gambling, vandalism, and automobile infractions.

Nearly half of all blogs contained some form of sexual content with 44% using explicit or graphic language and 16% referencing sexual activity. Some of the sexual content was extremely explicit in nature as represented in text and imagery. Certain references were also made about specific types of sexual activity including individuals’ virginity statuses. Naturally, profanity is intimately intermingled with sexual content and the overall frequency of any type of profane language among all profiles was 81%, almost evenly distributed within the sample. Twenty-seven percent of profiles include statements relating to physical harm of self or others such as gang references, suicidal ideation, discussion of fights, or images of weapons implying violence.

Regarding personally identifiable information disclosed by adolescents, 43% listed their full name; 10% listed their phone number; 11% disclosed their place of employment, and 20% revealed their online contact information (i.e., email address). Overall, nearly half the sites analyzed contained information that could potentially jeopardize the identity security of the adolescent participants (see Table 3).

In an effort to tie the virtual world of adolescent bloggers to their “real” day-to-day lives, their frequency of interaction with other users was collected. Comments about physical meetings and frequency of

Table 2. *Social content observed in adolescent profiles listed by gender*

	Males (N=50)	Females (N=50)	Total (N=100)
Image			
Appropriate	40%	43%	83%
Inappropriate	10%	7%	17%
Family Issues			
Positive parental comment	16%	21% ¹	37%
Negative parental comment	5%	11% ¹	16%
Positive sibling comment	11%	11%	22%
Negative sibling comment	1%	1%	2%
School Issues			
Skipping school	---	4%	4%
Aspires to attend college	14%	13%	27%
Athletics	34% ¹	24%	58%
Social Issues			
Positive peer comments	47%	50%	97%
Negative peer comments	19%	17%	36%
Special interests	33%	38%	71%
Discussion of "parties"	18%	22%	40%

¹ Indicates significant difference at .05 between males and females

Table 3. Risk behaviors observed in adolescent online social networking profiles listed by gender

	Males (N=50)	Females (N=50)	Total (N=50)
Risk Behaviors	44%	40%	84%
Substance Use	44% ¹	39%	83%
Alcohol discussion/comments	42%	39%	81%
Author smokes	9%	9%	18%
Author doesn't smoke	31%	25%	56%
Illegal drugs discussion/comments	15%	12%	27%
Criminal Activity	8%	7%	15%
Stealing/Shoplifting	5%	4%	9%
Sexual Content	29%	20%	49%
Explicit/graphic language	25%	19%	44%
Sexual activity comment	10%	6%	16%
Profanity	42%	39%	81%
Physical harm-self/others	18%	9%	27%
Included Full Name (First, Last)	23%	20%	43%
Included Phone Number	2%	8%	10%
Included Employer Name	2%	9%	11%
Provided Online Contact Information	10%	10%	20%

¹ Indicates significant difference at .05 between males and females

comment postings were indicative of "real" relationships; 83% of the sample referenced previous in-person contact as well as proposed future in-person encounters and such "real" contact was evenly distributed across the sample. Profiles had an average network size of 194 "friends" with a standard deviation of 162.28. This figure not only represents the number of contacts made and maintained online but also highlights the diversity in network sizes. The average frequency of interaction was 2.79 days, with a standard deviation of 3.10 days. Such a short time lapse between postings indicates that adolescents frequently use online social networks to communicate and maintain relationships on a regular basis. With a standard deviation of less than a week, it is safe to assume that adolescents use these networks as a major method of interpersonal communication (see Table 4).

DISCUSSION

Process

This study brought to light two aspects of online social networking research: process and content. The process function of the analysis was to determine if content from adolescent social networking profiles could be systematically and scientifically studied. Though broad and randomly filled with diverse content, social networking profiles successfully fit into a coding scheme that allowed for exploratory collection of qualitative themes relating to adolescent thought, behavior, and socialization. The proposition that such content could be successfully researched was strongly supported. The information adolescents post online does contain intimate and candid personal information as well as peer interaction that can be randomized, sorted, and systematically coded creating a comprehensive overview of online social behavior. The process of reviewing profiles was time-consuming and detail-oriented, thus requiring intense focus on accuracy and unbiased recording. With that said, and considering the variety and amount of data collected in this study, it is concluded that adolescent blogs are an ideal research opportunity with many diverse avenues for analysis.

Content

The second aspect of the study relating to blog content resulted in concurrent findings with prior literature as profiles included personal demographic details, comments relating to family well-being and functioning, peer interactions, substance use, sexual activity, body-image issues, identity vulnerability, and frequency of contact among bloggers.

Table 4. *Peer Interaction: Frequencies and means of adolescents by gender*

	Males (N=50)	Females (N=50)	Total (N=100)
In-Person Contact (not online)			
Prior	42%	41%	83%
Future/proposed	40%	43%	83%
Length of "friend" list (number of users)			
Mean	218.00	170.00	194.00
Standard Deviation	196.30	133.36	168.73
Frequency of comment posts (in days)			
Mean	2.97	2.61	2.79
Standard Deviation	4.17	2.23	3.33

Findings of sexual and profane content strongly supported prior research by Subrahmanyam, Smahel, and Greenfield (2006) in that adolescents use online forums to explore their sexuality. Because of the vastness and richness of content available, it is recommended and strongly encouraged that future studies focus on specific aspects of adolescence (e.g., body image), and collect only data pertinent to such focus. It is not feasible to address a broad array of variables with extreme depth or comprehension. However, unlike prior research, this study thoroughly assessed for thematic, overarching variables adolescents frequently include in their online discussions providing direction for future, more contemplative analyses. During the course of this investigation, many salient research topics presented themselves (adolescent alcohol use, parent-child relationships, gender differences in body image, adolescent sexual expression) as ideal future research themes related to adolescent development. This study was successful in demonstrating the diverse information that is literally at the research world's fingertips and freely available for analysis.

Future studies must address the concept of "freely available" information and clear lines must be drawn regarding how ethical it is to observe controversial and disturbing material posted by minors. Prior to embarking on a study of this kind, researchers must outline what information they will collect, and what they will report to site administrators or authorities as inappropriate or dangerous. Though social network participants must waive any rights to the content, one cannot assume users—specifically adolescents—thoroughly review hosting sites' terms of use, privacy policies, or register with sites using accurate demographic information.

Identity Exploration

Through observation of adolescents' online interactions and behaviors, it is evident that identity exploration is facilitated by online social networking. Topics that have been associated with adolescence and individuation were present in online profiles—especially in the areas of self-disclosure, peer relations, risk behaviors, and sexual exploration. The content posted to adolescent blogs followed expected paths of identity and role experimentation as originally understood by Erikson's developmental stages (1968). It is an advantage to understand that adolescents use social networking sites to quasi-publicly experiment with their identity, trying out different roles. However, it is much more beneficial for researchers, parents, and educators to have first-hand knowledge of the specific ways adolescents communicate with their peers and social networks and to view blogging as a relatively

safe method of role exploration. Understanding *how* teenagers communicate with one another potentially facilitates better communication between authority figures and adolescents and enables adults to be more aware of adolescent emotional health and well-being.

School Environment

Through the lens of school environment, results did not highlight any demonstrative trends associated with attendance at any type of school but provided enough interesting data to warrant additional research. Faith, or attendance at a faith-based school, was not observed either as a risk or protective factor. However, in light of the expectations that accompany parochial school attendance, it is possible that a lack of difference between public and private-religious school is, in itself, a significant finding—especially considering the provocative topics that were equally present among all students.

INTERVENTION

Findings from this review highlight several areas where adolescent social networking profiles could be useful in educating parents about adolescents' attitudes and behaviors, as well as indicate several areas where intervention may be needed, primarily in the areas of risk-taking behavior and personal identity disclosure. Based on results from this study, adolescents are blogging about a considerable amount of risk behaviors such as substance use, crime, and promiscuity. The infinite and unguarded nature of the Internet may require parents to revisit their philosophy on adolescent privacy expectations and parent-child communication about such behaviors. Not only can parents benefit from observing their child's uncensored disclosure and behavior by gaining a greater understanding of their attitudes and motivations, they can also learn more about the Internet world, their child's level of participation within it, and how their parental role as monitor fits into the scheme of virtual reality.

If parents are able to observe their adolescents' peer communications, they may be able to embrace a more realistic perspective of their attitudes, values, and motivations and be able to adapt their parenting styles appropriately. In other words, parents will be able to know their children better. Adolescents view their parents as more permissive or more authoritarian than parents often see themselves, which significantly affects emotional autonomy and parent-child conflict (Smetana, 1995). Instead of perceiving online content as a form of personal diary

that adolescents are entitled to keep private, parents should view the medium as an invaluable tool for helping them understand their teenagers better—their hopes, challenges, opinions, communication styles, activities, and social networks.

“The explosive growth in the popularity of (social networking sites) has generated concerns among some parents, school officials, and government leaders about the potential risks posed to young people when personal information is made available in such a public setting” (Lenhart & Madden, 2007, ¶ 3). Parents and educators could take an appreciation of online social networking, and its role in adolescent life, a step further by incorporating it into routine discussion and curriculum. By transforming computer-mediated communication (CMC) from a contemporary phenomenon, where parents have no presence and limited understanding, to common knowledge incorporated into everyday language, CMC loses its power and stigma as a technology that only adolescents use or comprehend. Alienating the Internet from the academic environment would only succeed in creating a greater divide between young people and authority figures. It is also essential that school administrators stay abreast of online networking within their institution to monitor the social climate of their school community. It is imperative that teachers, school administrators, and most certainly parents familiarize themselves with the Internet well enough to at least monitor who students are talking to and about what.

By addressing online activities with teens, in relation to ethics, propriety, safety, and language, all parties involved learn more about one another and create a safer environment in which this modern method of communication will continue to grow. As demonstrated in the current study, online social networks can be a positive form of communication within the school system. Several sites were created to maintain friendships after students had relocated to another state or, in one instance, when a foreign-exchange student returned to his home country. A series of comments were found on a male's profile welcoming him to his new school and initiating new friendships. Within parameters guided by parents, schools, and other invested authorities, online social networking could be a positive outlet for peer interaction and appropriate self-disclosure.

LIMITATIONS

The findings of this study should be understood solely as indicators of the need for more focused research. The most obvious limiting factor

of the analysis is the inability to verify any of the information collected or understand it from the participants' perspectives. Everything included in online social networking profiles, or on the Internet for that matter, is completely subjective and limited by what the authors choose to disclose or their subjective depiction of themselves. However, these limitations are not so different from the challenges encountered with any type of self-report data collection that is dependent on honest disclosure of participants.

A second limitation affecting generalizability is the small sample size. But each of the 100 profiles reviewed contained extensive detail that provides insight into adolescents' online social networking. The amount of detail in this analyses mandated a smaller, more manageable sample size with limited scope, but resulted in more complex and salient recordings. Social networking sites are, as Mazur (2005, p. 180) noted, "mines of adolescent data." The information is out there and is rich in substance and meaning; it just needs to be systematically collected and coded for generalizable analysis.

CONCLUSION

This study certainly begs more questions than it answers; however, that was the purpose. The intention of reviewing adolescent blogs was not to learn more about the Internet, but to learn how online social networking sites could benefit and give direction for future research on adolescent behavior and development. The question of what topics teenagers discuss online was answered and content ranged from families and friends, hobbies and athletics, to drug-use, profanity, and promiscuity. Observing adolescent behavior within an online network supported the notion that profiles are rich in behavioral data as related to development and individuation. Researchers continually strive to understand the teenage mind better, especially as society advances and new modes of communication and exploration develop. Blogging could be viewed as more authentic behavior compared to cross-sectional methods asking adolescents how often they participate in or feel about certain aspects of life. The inconsistencies found within the 100 blogs observed in this analysis demonstrate that what a teenager marks on a survey form may be very different from how they actually feel or behave with their peers.

In this sample, few patterns were evident, though some phenomena appeared promising such as communication style, self-image, sexual behavior, or violence. More research is needed that explores readily

available information to create a more comprehensive analysis from which stronger inferences and generalizations can be made. Even though no patterns were established based on school environment, that does not mean no associations are to be found. This review highlighted a dire need for more data collection addressing adolescent behaviors—both positive and risky—to see if and how they are affected by the school environment. The content analyzed from the profiles in this study indicate the importance of adolescent behavior and peer interaction as it relates to social relationships, risk behaviors, special interests, extracurricular activities, and family dynamics. The overall goal of this study was achieved—an overview has been developed outlining what adolescents are communicating online. Future studies should take this research further by investigating the specific behaviors observed in order to understand what they mean within the context of the adolescent's "real life."

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