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EMERGING RISKS OF VIOLENCE IN THE DIGITAL AGE: LESSONS FOR EDUCATORS FROM AN ONLINE STUDY OF ADOLESCENT GIRLS IN THE UNITED STATES

[Ilene R. Berson, Michael J. Berson, and John M. Ferron](#)

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Abstract

This research focuses on the evolving area of cyberviolence and draws on a pioneering study to discuss benefits and risks of online interaction among adolescent girls. This new area of inquiry introduces educators to the social and cultural communities of the Internet, a virtual venue with unique perspectives on power, identity, and gender for children and youth.



Introduction

The adolescents of today are the first generation to be raised in a wired world where computers are a common entity in classrooms and homes. In addition to the tremendous benefits that technology has afforded, including access to information and educational resources, the increased immersion of students into a digital age has also contributed to the evolution of new participants in and witnesses to the emergence of social problems in the cyberworld. Offenders of violent acts have discovered an alternative forum to intrude upon the lives of

potential victims, and some youth have been enticed to engage in the dark side of computer technology where the relative degree of online anonymity is exacerbated by the lack of system-imposed restraints. To date, regulation of the Internet is not regulated by a single government entity or other organization, and with the exception of child pornography and exploitation online, most forms of speech transmitted in cyberspace are protected by the First Amendment with the receiver of information often retaining responsibility for how they manage computer telecommunications.

The Internet is accessible and popular among youth, and evidence is suggesting that people often make online choices that are contrary to their offline behaviors (Miller, 1999). This phenomenon has broadened the opportunity to engage in violent and abusive behaviors and has dramatically increased the access of potential offenders to a more expansive pool of victims (Federal Bureau of Investigations; <http://www.fbi.gov>).

Additionally, access to technology resources in schools and public libraries has been an equalizer for children whose family income may not support Internet access at home (Rideout, Foehr, Roberts & Brody, 1999), increasing the number of children and youth who may be simultaneously targeted by skilled cyberoffenders. Although prevalence rates are not available on the number of cybervictims, Jenson (1996) estimated that there are approximately 200,000 cyberstalkers in the United States.

The Internet has provided a new medium for the victimization of children, and sexual exploitation in cyberspace is among the most dangerous threats to youth online. It encompasses a continuum of perils to children, including on-line solicitation, bullying and stalking. Traditional "stranger-danger" campaigns have been used to develop safety guidelines; however, the interplay between identity, trust and deception in cyberspace creates a complex blending of knowledge that is needed about online encounters and situations where children must exercise caution.

While the computer can be a critical tool for teaching and learning, it also has the potential to be misused as a weapon which harms children and youth. Exposure to hate, violence, misinformation, consumer exploitation and sexual predators can be to the detriment of a child. Additionally, the interactivity of the web can compromise children's safety when they reveal information about themselves to others. Chat rooms, bulletin boards, games, contests, and other online forums have facilitated the disclosure of personal information to strangers. Children are at risk of having their safety comprised when this information is available to others interested in online and offline contact.

Internet safety encompasses those initiatives which mediate the online experiences which are disadvantageous to a child's physical, cognitive, and socio-emotional functioning. Specific Internet safety measures include laws prohibiting illicit activity online and protecting children's privacy; Acceptable Use Policies that stipulate rules for children to access the Internet in schools; family guidelines and parental supervision; and implementation of browser access controls and software to filter, block, and monitor children's access to certain sites. The recognition of threats to children in cyberspace is an important first

step in developing constructive solutions and a plan of action which fosters protective and productive learning experiences.

Emerging Research on Youth in Cyberspace

Electronic communication has been used to bully, harass, threaten and exploit victims. As a new phenomenon there is a paucity of research or models to predict the likelihood to engage in at-risk activities online which may be associated with subsequent violence and/or exploitation. Among the recent reports that have been released on children's Internet use are the UCLA Internet Study (Cole, 2001) which noted that the Internet is increasingly a point of social contact for adolescents who may prefer the anonymity of cyber relationships; a study by the Annenberg Public Policy Center of the University of Pennsylvania (Turrow & Nir, 2000) comparing children's and parents' views of privacy and the release of personal information on the Internet; and the American Association of University Women (AAUW, 2000) report which focused on improving computer involvement of girls in schools. The National Center for Missing and Exploited Children (www.missingkids.org) has begun collecting information from its CyberTipline which was launched in March 1998. Nearly 12000 leads have been reported through September 1999 in the areas of child pornography (9015 incidents), child prostitution (277 incidents), child sex tourism (188 incidents), child sexual molestation (690 incidents), and online enticement of children for sexual acts (1533 incidents). Moreover, international meetings addressing pedophilia on the Internet have focused primarily on defining the problem and negotiating safeguards to ensure safety while maintaining access (Aftab, 1999; Bastelaer, 1999; Hecht, 1999; Kerr, 1999). Law enforcement and legal issues have prevailed at the forefront of focus (Hermoso & Cullen, 1999; Lanning, 1998; Maur, 1999; Rimm, 1995; Toth & McClure, 1998), but the identification of preventative mechanisms facilitated by caregivers and schools in conjunction with the concomitant socio-emotional impact of children's online activities have been silent topics as yet unexplored. Although no voice has yet been given to the experience of children enticed by the new opportunities for violent activity in cyberspace or lured into an exploitative online encounter, anecdotal evidence has suggested that virtual interactions have resulted in subsequent repercussions for young people's physical and social well being.

Objectives of the Research

As an educational tool the Internet offers access to extensive resources and information; however, the risks to young people online necessitate awareness and intervention to promote safety and well-being. International efforts are underway to better understand the potential consequences of Internet access for children who are vulnerable to the dark side of computer technology (Bullen & Harre, 2000; O'Connell, 2001); nonetheless, very little empirical data is available about risks to children online or preventative mechanisms which moderate their safety.

The Youth Internet Safety Survey (2001) which was commissioned by the National Center for Missing and Exploited Children reported that "many young people are being subjected to dangerous and inappropriate experiences on the

Internet. The offenses and offenders are diverse, and the primary vulnerable population is teenagers." They suggested a number of recommendations, including comprehensive training for mental health, family and school counselors on online hazards; increased understanding for families; and increased publicity to youth about cybervictimization.

In an effort to better understand the risks to adolescent girls online, this baseline study was conducted in the United States. Using online data collection procedures, 10,800 respondents identified behaviors that placed them at-risk. The objectives of this research include the identification of online activities of children and youth which may contribute to risk of exploitation and abuse, discussion of the differential role of mediating factors in protecting young people's well being in cyberspace, and a clarification of policies and practices that may contribute to safety for children online.

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Research Design

This study used an online survey design to obtain baseline information from a widely dispersed population of adolescent girls who are active users of the Internet. The results highlighted in this paper are intended to explore the relevant issues and lay the groundwork for future research on youth and cyberspace. This is considered an exploratory study which introduces the issues and will need to be supplemented with ongoing research on specific characteristics of risk and preventative intervention. Furthermore, the generalizability of the study results to the larger population of adolescent girls needs to be considered. Due to the anonymity of the respondents, one of the limitations of the research design is the possibility that the survey respondents did not represent the experience of all adolescent girls or that responses were exaggerated or misrepresented. However, it should be noted that there is established support for computer-based survey design which shows that responses in this forum are as accurate or more accurate than face-to-face interviews, and there is evidence that researchers yield similar results with standard and web samples. Also, although this was a sample of "convenience," many samples in studies are neither random nor representative. In an article in the American Psychological Association publication *Monitor on Psychology*, Beth Azar (2000) quotes Scott Plous regarding his review of web-based samples vs. lab studies. As for the diversity of study participants, "most studies on the representation of Web-study participants suggest that, if anything, those populations are more representative of the public than samples from more

traditional lab experiments." However, people on the Internet tend to represent higher socioeconomic groups with greater levels of education. Other issues of confidentiality and ethics for collecting data in cyberspace from children need to be confronted, and formal guidelines are evolving to assist in the future direction of online research (Boehlefeld, 1996; Frankel & Siang, 1999; Jones, 1999; King, 1996; Mann & Stewart, 2000; Reid, 1996; Thomas, 1996).

METHOD

Procedure

In a web-based study conducted in conjunction with *Seventeen Magazine Online*, CyberAngels, the College of Education at the University of South Florida, and the Department of Child and Family Studies at the Louis de la Parte Florida Mental Health Institute, an online survey was developed and placed on the Seventeen Magazine site from May through June 1999 to assess level of Internet use, involvement in varied at-risk behavior online, incidents involving negative interactions in Cyberspace, and perceived mechanisms to promote safety and well being.

Instrument

Participants completed a 19-item questionnaire that included multiple choice and open-ended questions. The questions had been piloted through surveys of middle school students in Baltimore County which were conducted by CyberAngels (Aftab, 2000). The online survey was developed using Cold Fusion software which allows online responses to be stored in a database. The data was then uploaded into a statistical software program for analysis.

Participants

The differences in girls' use of technology (AAUW, 2000) combined with data confirming adolescent girls as the group most likely to be targeted for assault (National Center for Missing and Exploited Children, www.missingkids.org), established the need to devote the study to investigation of girls' experiences in cyberspace. At the time when the survey was posted formal legal guidelines did not exist to specify requirements for age of consent online, so the legal opinion of Parry Aftab, a cyber-attorney and Executive Director of CyberAngels, was consulted and assisted in the selection of the age span for the research which best represented the legal age standard for obtaining voluntary agreement for participation in an online study. As a result of this discussion and feedback from the University of South Florida Institutional Review Board, adolescent girls aged 12 to 18 years of age were selected as qualified to participate in the informed consent process. Since these data collection procedures were completed, new federal statutes have been implemented which address consent of youth online. Subsequently, the designated age span would need to be modified or the consent procedure altered if the study were replicated due to the issuance of the Children's Online Privacy Protection Act of 1998 (COPPA) by the Federal Trade

Commission. As of April 21, 2000, COPPA required commercial web sites and online services to obtain verifiable parental consent before collecting, using, or disclosing personal information from children under 13 (Federal Trade Commission, <http://www.ftc.gov/opa/1999/9910/childfinal.htm>).

Since the survey was placed on an open web site, exclusionary criteria for participation were specified on the consent page (i.e., girls from 12-18 years of age); however, adherence to the criteria could not be verified due to the anonymous nature of the survey. In order to minimize superfluous replies to the survey and capture the responses of adolescent girls online, an Internet site was selected for hosting the survey which possessed demographics that matched the study's targeted population; the survey was hidden within the site; and the study was not advertised in any forum so that self selection of the site's typical users could be achieved. After removing incomplete surveys, surveys completed by individuals not targeted in the research, and multiple surveys submitted from the same source, the number of responses totaled 10,800.

Data Analysis

Using the results from the Seventeen online survey of adolescent girls, the data have been analyzed using descriptive statistics, and ongoing analyses are focusing on development of a victimology profile based on probability of online risk. This conceptualization of a victim profile for youths at risk for crime, exploitation and subsequent trauma associated with their online activities is still in its formative stages. We have used logistical analysis to isolate variables that predict at-risk activity. The participants reported online experiences which challenged them to confront choices conflicting with the development of attitudes, values, and social functioning. These dependent variables include giving out personal information online, agreeing to meet with someone, receiving or sending photos, receiving and sending suggestive or threatening email, and participating in chatrooms where the content resulted in discomfort. They also identified factors which may moderate risk (independent variables), and these variables have been used to develop odds ratios and subsequent log of the odds through a logistic regression model. These include preventative activities (supervision, education, discussion) by significant adults (parents and teachers). Initially the log odds are being modeled as a linear function of the predictors, and then more advanced measurement analysis will result in consideration of multiple predictors simultaneously.

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RESULTS

Demographics

The survey elicited demographic information on age and grade in school. The majority of respondents, nearly 50% of the sample, were 14-15 years of age and in the ninth or tenth grade. Among the study sample 22% were between 12 to 13 years of age, and almost 30% reported that they were age sixteen or older. Middle schoolers (sixth through eighth grade) comprised 26% of the respondents, and 20% of the survey sample were in the eleventh or twelfth grade.



Online Habits

Cyberactivity is discussed in terms of time spent online, most frequent location for accessing a computer, and most common activities. Most of the respondents (30%) indicated that they spend at least three to five hours online each week. Nearly one quarter are engaged in cyberactivities from six to nine hours, and

each week 12% spend 10-12 hours online. The least frequent users of the Internet (less than two hours per week) represented 20% of the sample, and approximately 15% reported heavy usage, averaging over 12 hours each week.

The vast majority of the participants used a computer at home as their primary access site (92%). The school and a friend's house also were common alternative sites. Least common sites were libraries and work settings. When online, 58% of the respondents spend their time sending instant messages or emails to friends, 20% surf for new things on the web, and 16% primarily spend time in chatrooms. Only a small percentage (one percent, respectively) indicated that the majority of time online is spent working on building a web site, reading discussion boards, interacting at game sites, or engaging in homework and research.

Supervision of Online Activities

The majority of the adolescents indicated that their parents had discussed online safety with them (70%), and 35% reported that teachers addressed cybersafety. Conversely ongoing discussions about cyberactivities was less common with only 30% indicating that a parent, caregiver or teacher engages them in at least periodic communication about their online experiences. While surfing online, half of the participants specified that their parents or teachers directly supervise them at least occasionally by sitting with them when they are surfing or checking their screen periodically. Less than nine percent reported that software is at least occasionally used which reports on their online surfing.

The results suggest that the dialogue with and monitoring by significant adults seems to make a difference for many young people. None of the teens who had a significant adult spend time with them while they surfed reported engaging in cybersex, while almost 60 percent of the adolescents in general reported experiences with sexually explicit exchanges online. Table 3 captures the significant inverse interaction between direct supervision, periodic monitoring, and ongoing discussions with adults which are associated with a decreased tendency to engage in cyberactivities (i.e., disclosing personal information, offline meetings, sharing photos, exposure to threatening messages) which may lead to potential harm. The protective function of these nontechnical safety measures, however, cannot prevent exposure to potentially disturbing content online, although it may create a safety net around the child which assists in mediating the deleterious effects of these experiences.

Patterns of Interaction Online

The respondents were asked to select activities from a continuum of online risks in which they have engaged. Sixty percent of the participants reported that they have filled out a questionnaire or form online, giving out personal information (i.e., name, address, date of birth, phone number, or school name). Additionally 45% have revealed similar information to an individual they met online. Sixty-one percent have received pictures from someone online, and 23%

disseminated pictures of themselves to another person that they met in cyberspace. The exchange of suggestive or threatening email messages is a less common phenomenon with 15% identifying themselves as the recipients of disturbing communication online and three percent acknowledging that they have initiated threatening or sexually explicit messages.

An association has been identified with time spent on line and the probability of engaging in risky activities. As adolescent girls spend an increasing amount of time on-line, they are more likely to participate in destructive or potentially dangerous acts. This correlation was persistent across all assessed areas, and suggests that cyber-misconduct may become increasingly prevalent as youth expand their use of the Internet (See Table 3).

Development of a Cyber Victimology Profile

A logistic regression model also has been developed based on the online data to assist in formulating a victimology profile for adolescent girls in cyberspace. Based on the premise that certain online activities (e.g., sharing personal information, engaging in threatening or sexually suggestive communication, meeting offline with online acquaintances) contribute to greater potential for harm, the victimology profile begins with a focus on the most insidious danger to youth in cyberspace-Internet related exploitation as a result of real life meetings with an online acquaintance.

The outcome that is being modeled in logistic regression is the log of the odds of agreeing to meet with someone as a result of an online encounter. In the sample, 1360 girls endorsed the statement "I have agreed to meet with someone in person I have met online", while 9481 girls did not. Although the odds of endorsing this behavior are 1360/9481 or .143, the odds are not equal for all subgroups within the sample. Based on the conjecture that the odds may depend on whether or not a teacher has discussed Internet safety, for girls that have not discussed Internet safety with a teacher the odds of agreeing to meet someone in person after online interaction are .1585 (948/5982). For girls who have discussed Internet safety with a teacher the odds of agreeing to meet someone in person they have met online is less, .1177 (412/3499). It is common to take the ratio of the odds, $.1177/.1585 = .743$. The odds ratio is interpreted to say girls who have discussed internet safety with a teacher have odds of agreeing to meet with a stranger which are only .743 times the odds of girls who have not discussed internet safety with a teacher. Thus, teacher training on Internet safety has a positive effect on diminishing the potential risk for exposure to cyberviolence.



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The log transformation brings symmetry to the odds. Consider again the odds of agreeing to meet someone in person following an online interaction, $1360/9481=.143$. Now consider the odds of not agreeing to meet someone in person following an online encounter, $9481/1360=6.971$. If we take the log of these two odds we obtain $-.843$ and $.843$, respectively. The log odds (or logits) are modeled as a linear function of the predictors. In this case, one could use whether or not a teacher has discussed Internet safety as a predictor of the log odds of agreeing to meet with someone in person who has been met online. When the logistic regression is run, a parameter estimate for the predictor of $-.297$ is obtained, which is statistically significant ($c2(1)=22.42, p=.0001$). The interpretation of this parameter is that having a teacher discuss Internet safety decreases the predicted log odds of agreeing to meet with a stranger by $.297$ points. Since it is fairly difficult for most of us to think in terms of logs, the parameter is typically exponentiated ($e^{-.297}$) which yields the odds ratio of $.743$. This ratio implies the odds of agreeing to meet with a stranger when a teacher has discussed Internet safety is only $.743$ times the odds of agreeing to meet with a stranger when no teacher has discussed Internet safety. Note that if the parameter in the logistic regression differs from 0, the odds ratio differs from 1, indicating the predictor is related to the odds of the outcome.

It is also possible to consider multiple predictors simultaneously. When multiple predictors are considered in a logistic regression model, the parameter estimate for a particular predictor is interpreted as a change in the predicted log odds of the outcome for a one unit change in the predictor, holding constant the other

predictors in the model (Pedhazur, 1997). Again we can convert the parameter estimates into odds ratios, but these are referred to as adjusted odds ratios since they control for the other predictors in the model. To illustrate consider using logistic regression to examine the log odds of agreeing to meet with a stranger as a function of both having a teacher discuss internet safety and having a parent discuss internet safety. The results are presented in Table 1.

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Table 1.

Logistic regression predicting log odds of agreeing to meet with a stranger based on whether or not there was discussion with a teacher and whether or not there was a discussion with a parent

	<u>Parameter</u>	<u>SE</u>	<u>χ^2</u>	<u>p-value</u>	<u>adjusted odds ratio</u>
Intercept	-1.785	.0503	1258.44	.0001	
Teacher*	-.2746	.0644	18.16	.0001	.760
Parent*	-.0965	.0626	2.37	.1232	.908

* having a discussion is coded 1, not having a discussion is coded 0

The adjusted odds ratio for the teacher discussion predictor is .76. This indicates that after controlling for whether or not there has been a discussion of internet safety with the parent, those who have discussed internet safety with a teacher have odds of meeting with a stranger that are only .76 times the odds of those who have not discussed internet safety with the teacher.

It is also possible to consider the interaction between predictors. Consider a logistic regression where the log odds of agreeing to meet with a stranger are modeled as a function of discussing Internet safety with a teacher, discussing Internet safety with a parent, and the interaction of these two predictors. The results are presented in Table 2.

Table 2.

Logistic regression predicting log odds of agreeing to meet with a stranger based on whether or not there was discussion with a teacher, whether or not there was a discussion with a parent, and the interaction of the two predictors.

	<u>Parameter</u>	<u>SE</u>	<u>x²</u>	<u>p-value</u>	<u>adjusted odds ratio</u>
Intercept	-1.744	.0531	1079.99	.0001	
Teacher*	-.5455	.1425	14.66	.0001	.580
Parent*	-.1685	.0706	5.70	.0169	.845
T*P	.3489	.1602	4.74	.0294	1.418

* having a discussion is coded 1, not having a discussion is coded 0

The interaction is statistically significant, leading us to conclude that the effect of teacher discussion on the predicted log odds depends on whether or not there was a parent discussion. If there was no parent discussion, the odds ratio for the teacher discussion variable is .580. If there was parent discussion, the odds ratio for the teacher discussion variable is .822 (.580*1.418). In both cases having discussed Internet safety with a teacher reduces the predicted odds of agreeing to meet with a stranger. The effect of teacher discussion, however, is greater when there has been no discussion with a parent.





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Table 3.

Table 3 presents the odds ratios obtained when the log odds of each activity was predicted using a single predictor.

Activities (% indicating the have engaged in the activity)

Predictor	Filled out form with info (59%)	Agreed to meet in person (13%)	Told personal info (42%)	Received Pictures (59%)	Sent Pictures (23%)	Received suggestive e-mail (17%)
Parent safety	.901*	.852*	.910*	1.045	.991	1.076
Sibling safety	1.001	1.248*	1.053	1.243*	1.138	1.431*
Teacher safety	1.084*	.743*	.877*	.912*	.853*	1.106*

Friend safety	.986	1.272*	1.089	1.284*	1.275*	1.334*
Other safety	.990	.991	.948	1.047	1.025	1.225*
No one safety	1.382*	1.518*	1.377*	1.162*	1.245*	1.046
How often sits with	1.150*	1.283*	1.266*	1.302*	1.251*	1.093*
How often checks with	1.050*	1.222*	1.111*	1.177*	1.135*	1.035
How often discusses	1.068*	1.174*	1.094*	1.120*	1.104	.922*
Time online	1.177*	1.430*	1.364*	1.494*	1.478*	1.156*

Table 3 (cont.).

Activities (% indicating the have engaged in the activity)

Predictor	Sent suggestive e-mail (4%)	Been in uncomfourt ChatRoom (29%)	Explored a bomb site (2%)	Read hateful messages (28%)	Read violent messages (16%)
Parent safety	.746*	1.251*	.538*	1.000	.934
Sibling safety	1.495*	1.401*	.794	1.158*	1.284
Teacher safety	.896	1.289*	.727*	1.199*	1.286*
Friend safety	1.197	1.439*	.657*	1.204*	1.397*
Other safety	1.106	1.027*	.719	1.155*	1.163*
No one safety	1.852*	.856*	2.393*	1.217*	1.279*
How often sits with	1.466*	.983	1.455*	1.153*	1.161*
How often checks with	1.133*	.930*	1.416*	1.059*	1.110*
How often discusses	1.037	.902*	1.331*	1.072*	1.066*
Time online	1.219*	1.041*	1.316*	1.159*	1.165*

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There are often multiple explanations for the observed odds ratios. As example consider the activity, agreeing to meet offline with an online acquaintance, and the predictor, has the respondent discussed Internet safety with a sibling. The odds ratio is 1.248, indicating the odds of agreeing to meet with someone who was met online are 1.248 times higher for respondents who have discussed Internet safety with a sibling. Is this because the siblings are encouraging respondents to meet with someone who was met online? Or are the discussions stimulating curiosity and exploration. Or is it that the respondent's meeting with someone is triggering a safety discussion with a sibling? Or is there some personality factor (or some environmental influence) that makes some respondents both more likely to meet with someone who was met online and more likely to discuss Internet safety with a sibling. These issues are also observed when there has been a discussion of Internet safety with peers, and the implications are currently being explored in more detail.

The resulting model of risk and intervention (See Table 3) will be used to inform knowledge of the experience of this large sample of adolescents and will contribute to more intensive projects to understand mental health issues associated with online victimization of youth. Additionally, identification of protective factors will be critical to fostering a safe and productive online experience for young people.

DISCUSSION

The results of the survey were intended to assess online risks to adolescents that may be associated with engagement in threatening behavior or exploitation. This data provides the framework for the initial design of prevention and safety programs for adolescents engaged in online activity. Survey results confirm that a significant number of adolescent girls are engaging in very risky activities when online and continue potentially problematic offline practices as a result of these online interactions. The data also confirm that there is a lapse in preventative intervention to create and maintain awareness and safety for young people. Moreover, our research uncovered a preponderance of reported online experiences which challenged students to confront choices conflicting with the development of attitudes, values, and social functioning. In a medium devoid of standards for conduct and codes of ethics, many young people falter in the quality of their online interactions with others, demonstrating instead a paucity of respect, responsibility, honesty, kindness, justice, or tolerance (Willard, 2000).

The Socialization of Youth in Cyberspace

As teens increase the time they spend online they also are increasingly immersed in an environment that has been shielded from the oversight and supervision of parents and other significant adults (Cole et al., 2001). Additionally, teens have a tendency to maintain secrecy about cyberactivity, contributing to a void of information about the prevalence of Internet abuse directed toward children. Ethical, safe and socially conscious online behavior may positively transform the nature of social interactions among youth and counter the betrayal, coercion and deception that accompany destructive behavior.

The survey results highlight the influence of parents and teachers, whose guidance may assist students in making informed decisions and allow them to demonstrate an ability to apply online critical thinking skills and productive social participation. Although many young people have some awareness of cybersafety as a result of initial discussions with adults, there appears to be a paucity of ongoing communication, leaving parents generally unaware of the online behaviors of their children. This is described by Young (1998) as a benign neglect of children's Internet activity.

The distancing of parents from youth as a result of a communication gap and technological divide highlights the shared responsibility of significant adults in making sure that children have access to and are safely guided through the Internet. The role of educators in promoting awareness of potential harm and the importance of safe and ethical conduct online is an essential preventative mechanism to counter cyber misconduct. The Internet presents new teaching challenges which necessitate educators' involvement in ensuring that children have safe, rewarding and educational web experiences. Teachers can help their students assess the value and importance of information that they find. Since inexperienced Internet users comprise the majority of victims of cyberstalking (Maxwell, 2001), educators need to emphasize to students why their privacy is important and instruct them on how to avoid the traps of disclosing personal

information which could be available to potential offenders. Educators can also model for students how to check the policies of web sites to be an informed surfer online and what actions to take when they become aware of a threatening incident.

The Internet is a powerful environment for enhancing the transfer of social and emotional skill development. It is replete with teachable moments when young people are challenged to exhibit self-control, engage in critical decision-making, and express feelings while demonstrating respect and tolerance for others. In fact, as schools increase the amount of access students have to cyberspace, the application of social skill training to this setting will become increasingly apparent (Berson, 2000a, p. 159).

Offenders and Victims in Cyberspace: Artifacts of a Culture of Deception

In the study, many adolescents reported online interactions which are characteristic of a culture of deception in which students' primary activities involve the exchange of verbally harassing or sexually suggestive chat. Young people often perceive that there is little chance of detection for misconduct online, minimize the potential harm to others that may result from their actions, and equate the legality of behavior with the ethics of behavior (Willard, 2000). For example, there is nothing illegal about lying about one's age or identity in cyberspace, disseminating sexually provocative messages regardless of age (i.e., Cybersex), using profanity online or exploring sexual fantasies (Lanning, 1998). Due to a perceived lack of consequences, stalking, death threats and other violent fantasies and behaviors have become more prevalent among young people online. Computer crimes, such as computer hacking, also are increasing in frequency, despite their serious offline legal consequences (Aftab, 2000). Since computer activities appear to be victimless and faceless crimes the true repercussions may not be discernible in comparison to the potential benefits gained by a young person. Students need to be aware of the advent of more sophisticated technology for tracking down perpetrators of online offenses in conjunction with legislated legal ramifications for those who engage in the most potentially harmful behaviors (Aftab, 2000; Willard, 2000). A recent law enacted prohibits the transmission of identifying information (names, address, phone number, Email address) of anyone under age 16 if it is for the purpose of enticing or soliciting sexual activity with a minor. Increased vigilance also is noted in the policing of other high tech computer crimes, such as the distribution of child porn, even when the possessor of the material is still a youth (Niemiec, 2001).

Our results on girls' preferred online activity were mirrored in a subsequent survey which reported that girls spend the majority of their time engaged in email communication, instant messaging, and chat (AAUW, 2000). Generally, girls are using the Internet to engage in more relationship oriented activities. Some respondents noted that online dialogue is used as a mechanism to empower themselves and find a voice. In face to face interactions young women may perceive that body size, facial features, and other superficial characteristics are judged as more important than personality. Conversely, online exchanges

take place in a context that often is devoid of these visual cues. In AAUW's study of teenage girls (1999) many girls admitted repressing their authentic self in order to fit in with peers. However, in cyberspace, the pressures to fit in and act a certain way are moderated by the perceived anonymity and false security of being protected behind the computer screen, often in the comfort and safety of one's home. Cyberspace provides girls a context where they can shed their traditional expectations and explore alternative aspects of themselves.

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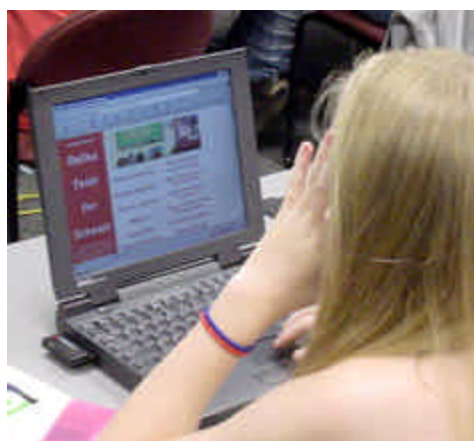


EMERGING RISKS OF VIOLENCE IN THE DIGITAL AGE: LESSONS FOR EDUCATORS FROM AN ONLINE STUDY OF ADOLESCENT GIRLS IN THE UNITED STATES

[Ilene R. Berson, Michael J. Berson, and John M. Ferron](#)

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Nonetheless, the positive potential of empowered interaction can be lost when constructive behaviors are replaced with offensive and harmful acts. In emails and chatrooms where respondents to our study described spending the majority of their online time, adolescent girls report insulting each other, exchanging sexual quips, attacking the opinions of others, and engaging in generally outrageous behavior. They sometimes don't care if the person that they flirt with is an adult or a young person.

They often view it as pretend, and they play the game of make-believe by stating that they are older, more popular, smarter, tougher, and/or more experienced than in the real world. Girls may pretend to be boys, and boys may pretend to be girls. After all, "the computer can't see you blush" when you enter this fantasyland where the innocent can be sexy, the obedient can be naughty, and even the meek can swear with the best of them (Berson, 2000a). Although

anecdotal data and narrative accounts on this activity are assisting in the creation of preventative messages and interventions, we need to further refine and evolve our understanding of the effect of these online experiences, including incidents described by our respondents as "Cyberrape," "Cybersex," and cyberstalking.

This research focuses on the prevalence of behaviors which contribute to risk for children and youth online and examines the potential impact of current and emerging strategies for promoting safe web-based experiences. The online behaviors of these young people can influence their emotional well-being and safety. The greatest potential danger is when online exchanges lead to offline encounters. Another very serious danger results from the sharing of too much personal information online, where the teenager can become the victim of cyberstalking and torment. The anonymity of cyberspace makes it difficult to track the emerging violent activity online, yet it is critical to develop new systems of protection for children who are potentially vulnerable to be preyed on. Parents and teachers are an essential line of defense in providing education and supervision so that cyberspace remains a secure environment for children and youth.

CONCLUSIONS

It is common for the technology skills of youth to surpass their critical thinking and judgment skills. While laws and attitudes struggle to keep pace with the activity online, educators, mental health professionals, and parents have the opportunity to systematically investigate and attend to the social and emotional skills of young people in cyberspace, including issues of accountability, responsibility, tolerance, and respect. The negative effects of Internet use are not inevitable, but the potential disengagement of young people from positive social interactions must be addressed if we hope to counter the allure of online personas. We are only beginning to recognize that online behaviors may have positive and negative effects on young people's socio-emotional development and functioning, and this reality requires professionals to be attentive and responsive to behaviors in cyberspace as well as in the classroom, home, and local community.

Part of the process of safeguarding children's experience online is the active instruction to educate children to navigate safely in cyberspace. Some will abdicate their responsibility for action to technological solutions which filter, monitor, and guide our youth through the complex world of cyberspace. However, a human touch is needed to counter the dark side of the Internet where sexual and racial harassment, obscenity, hate, and violence converge with caring and respect (Willard, 2000). This involves more than disseminating practical lists of online safety tips and requires a comprehensive educational program, which is part of a dynamic and interactive experience involving teachers, parents and youth in the development and training process. Initiatives which mediate online experiences that are disadvantageous to a child's physical, cognitive, and socio-emotional functioning should be developed in conjunction with early preparatory experiences which engage youth in assessing risky situations, developing appropriate coping techniques, and practicing

responses to problematic situations. Young people can be adequately prepared for potential risks on the Internet by learning how to identify ambiguous situations, take appropriate steps to minimize their vulnerability and augment their abilities to make informed decisions for safe navigation online. Avoidance techniques, de-escalation skills, netiquette/ethics training, and protection strategies are among the critical safety mechanisms which should be infused into instruction.

Researchers need to reflect upon technology to determine what skills it can foster while concomitantly critiquing the social and economic influences it has on children, youth and society (Berson, 2000b). William Gibson, who coined the term cyberspace in 1984, referred to it as a consensual hallucination. As young people increase their time online, this digital hallucination may entice young people into virtual relationships where violent fantasies and sexual encounters contribute to a destructive youth culture online, but can awareness of ethical responsibilities and safety guidelines protect their socio-emotional functioning? Moreover, how will this virtual world affect our understanding of childhood violence, exploitation and its concomitant trauma? Interactions between cyberoffenders and their victims may create a new dynamic which needs consideration in order to assess the emotional response of the child after witnessing or participating in cyber misconduct.

Successful solutions for safety will be based on a fluid knowledge base. In the new age of communication technologies, flexibility and adaptation will be the skills necessary to guide research in auspiciously negotiating advancements and fostering meaningful investigations which do not trivialize the socio-emotional functioning of our youth, the sanctity of human interaction, or the potential for collaboration in the context of global connectivity.

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