

# **A New Role for Libraries: Promoting Teens' Safety and Security in the Digital Age**

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## **Final Report**

## **2014 OCLC/ALISE Library and Information Science Research Grant Project**

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## Project Abstract

There has been considerable writing in the popular media about teenagers as irresponsible and sometimes even reckless users of social media, possessing little concern with protecting their personal information online. However, these portrayals are often exaggerated, and researchers are only beginning to understand how teens truly conceive of online privacy and security issues. This youth-centered research gathered data from 98 students at two U.S. high schools to develop a rich understanding their online privacy and security attitudes, beliefs, and practices. It also led to the development of guidelines that public and school librarians can use to teach teens to become better-educated and safer users of social media.

## Study Scope and Methods

### Scope

It has often been suggested in both the popular and scholarly narrative that the majority of the teenagers in the United States today were “born digital”—born into a world in which constant digital connectivity represents the prevailing state of everyday life (e.g. Palfrey & Gasser, 2008). However, the research literature is converging to debunk the popular conception that all teens exhibit high technology interest and skills (Author, 2010; Helsper & Eynon, 2010; Margaryan, Littlejohn, & Vojt, 2011), but what cannot be denied, and what we need a better understanding of, is that a significant portion of modern youth culture takes place in networked-



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### OCLC/ALISE Study report

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## Study Scope and Methods cont.

environments such as social media sites.

To develop policies and practices that enable teens to participate in this crucial part of modern youth culture without compromising their personal privacy and security, we must first understand teens' views about online privacy and security. However, much of the writing about youths' online privacy and safety is based on adults' prescriptive views of youths' online attitudes and behaviors—our adult view of what *we think youth should be doing online*, as opposed to an informed view of what *youth are actually doing online*.

With the goal of creating just such an informed perspective, this research investigated teens' views of their online privacy and security, both their opinions on the issues and their preventative and risk-taking behaviors. We proposed the following three outcomes of

the project:

1. a deeper understanding of teens' online privacy and security beliefs
2. an increased awareness of practices teens use to protect themselves in online environments.
3. a set of publically-available youth-centered guidelines for libraries, schools, and other formal and informal educational organizations to use to develop programming for educating youth to become more informed, safer digital citizens.

Each of these project outcomes was met, as explained in the following sections of this report.

### Methods

The project was guided by three research questions:

1. What are teens' attitudes toward online privacy?
2. What are their attitudes toward online safety?
3. What are the implications of these attitudes for teaching teens to be safer social media users?

We selected both qualitative and quantitative methods to investigate these questions with the goal of gathering in-depth data from a select group of teens. Data collection methods included background questionnaires and focus groups, conducted over the period of one week in April of 2014.

### *Setting and Participants*

We chose two suburban U.S. public high schools for the study. Both are located in a medium-sized U.S. city. It has a population of about 120,000 and has a fairly typical racial/ethnic composition, as compared to the country as a whole, with somewhat higher levels of education. Table 1 compares the racial/ethnic composition of the participants with US national figures.

The two high schools are of similar size and demographic makeup. School #1 enrolled 1,945 high school students in 2014, while School #2 enrolled a slightly higher figure of 2,132 students during that same year. The schools' populations include all economic strata and reflect the general demographic distribution of the city. Both include a library, a computer lab, and a video production lab students can use during school hours.

Senior year students at both schools were invited to take part in the study on a first come, first serve basis. A total of 98 students participated. Due to Institutional Review Board

**Table 1: Demographic Snapshot of Study Site (City)**

US Census Bureau Racial/ Ethnic Category	Study Site	U.S.
White	76.1%	72.4%
Black/African American	4.3%	12.6%
American Indian/Alaska Na- tive/Native Hawaiian/Pacific Islander	4.8%	1.1%
Asian	3.8%	4.8%
Hispanic/Latino	6.4%	16.3%
Two or more races	5.5%	2.9%
Median household income	\$49,038	\$53,046
High school graduate or high- er (adults 25 and over)	92.9%	86.0%
Bachelor's degree or higher (adults 25 and over)	43.5%	28.8%

(data from US Census Bureau, 2014)

(IRB) restrictions, only students aged 18 and older were allowed to participate.

The participant pool included 46 (46.9%) females and 52 (53.1%) males. Eighty-five (86.7%) of the students were age 18; the remaining 13 (13.3%) were age 19. Table 2 provides self-reported racial/ethnic information. As a group, their racial/ethnic representation roughly approximated the city averages.

### Focus Groups

Students took part in hour-long focus groups over a period of four days in

April 2014. We chose focus groups for several reasons. First, focus groups have “been shown to be very effective in drawing upon respondents’ attitudes, feelings, beliefs, experiences” (Kurniawan, Mahmud, & Nugroho, 2006, p. 991).

Second, the focus group format can encourage participants to reflect more deeply about a topic than they would in individual interviews (Morgan, 1997). As participants listen to others’ ideas, they tend to reflect on their opinions and beliefs and engage in further exploration of study topics.

Third, and most although

significantly for this study, although many researchers find individual interviews to lead to deeper, richer data collection with adult participants, the opposite is often true when working with youth (Eder & Fingerson, 2002; Heath et al., 2009). Our past research investigating teens’ use of social media has shown this is to be true: teens tend to talk more openly and in more depth in focus groups than in individual interviews due to the group setting and the resulting social interactions. Having more young people in the room than adults also tends to shift the balance of power to the interviewees, increasing their comfort and resulting in deeper, more thoughtful data. See Tables 3 and Table 4 for the number and sex of participants in each group.

**Table 2: Participant Demographics**

Self-Reported Race/ Ethnicity	Num- ber	Percent
White	65	66.3%
Black	7	7.1%
Hispanic/Latino	7	7.1%
White/Black	4	4.1%
Asian	3	3.1%
White/Asian	3	3.1%
Native American	2	2.0%
Other	2	2.0%
Black/Other	1	1.0%
White/Hispanic/Latino	1	1.0%
White/Native Ameri- can	1	1.0%
White/Other	1	1.0%
No response	1	1.0%
Total	98	100%*

(\*The total is actually 99.8% due to rounding. It is shown as 100.0% to indicate that the combined responses represented the full participant pool.)

## Update on Proposed Activities

All proposed activities for the project were completed as proposed:

- Participants were recruited in March 2014.
- Data gathering activities, including both administering the questionnaire and conducting focus groups were completed during a one-week period in April 2014.
- Data analysis was completed from June 2014-September 2014.
- The findings were disseminated through two presentations (one in November 2014 at the ASIS&T annual meeting) and one in January 2015 (at the ALISE annual meetings) and one paper submitted to for review at a peer-reviewed research journal (December 2014). We are also working on two additional journal articles, which we plan to submit for publication within the next couple of months.

**Table 3:** Study Participants, School 1

GROUP	MALES	FEMALES	TOTAL
Group #1	8	3	11
Group #2	5	2	7
Group #3	5	3	8
Group #4	6	2	8
Group #5	3	5	8
Group #6	5	3	8
Group #7	0	3	3
Group #8	2	2	4
Group #9	1	3	4
<b>TOTAL</b>	<b>35</b>	<b>26</b>	<b>61</b>

**Table 4:** Study Participants, School 2

GROUP	MALES	FEMALES	TOTAL
Group #1	1	6	7
Group #2	3	4	7
Group #3	0	4	4
Group #4	4	1	5
Group #5	3	4	7
Group #6	6	1	7
<b>TOTAL</b>	<b>17</b>	<b>20</b>	<b>37</b>



## Innovation

This project adds to the growing body of research into youth's privacy and safety in social media. Unlike most of the research in this area, we took a youth-centered approach, using data drawn directly from teens to understand *their* perspectives on these issues. We also went beyond merely researching the issues to offering realistic solutions in the form of innovative educational and practice guidelines that librarians, teachers, and parents can use to make teens safer, more educated digital citizens. We have made these guidelines freely available as a set of open-access webpages, and we encourage librarians, teachers, and others to use them in their work with children and teens.

## Data Analysis

We used a combination of two methods to analyze the data. We used standard descriptive statistics to analyze the survey data and qualitative content analysis to analyze the data from the focus group transcripts. In our past research with teens we have found video recording to increase participant reactivity more than audio recording. Consequently, we audio recorded the focus groups and analyzed the written transcriptions using thematic analysis, “a method for identifying, analyzing and reporting patterns (themes) within (qualitative) data” (Braun & Clarke, 2006, p. 79). Also called “qualitative content analysis” (Wildemuth, 2009), the process involves repeated readings of a body of qualitative data to develop and refine thematic categories. We used inductive category development (Mayring 2000), a specific form of thematic analysis, to analyze the transcripts. In inductive category development, the researchers first divide the research questions into abstract conceptual categories and then conduct repeated rounds of coding, refining the categories with each round of coding. This method provides direction for the analysis and increases the likely conceptual relevance of the resulting coding scheme to the research questions.

### Limitations

As is the case with any study, there are several limitations to this work. First, attitudes and behaviors may vary across time, but the data reflect just one point in time.

Second, although we employed measures to reduce group think (asking participants to complete questionnaires before the focus groups began to concretize their thoughts, and beginning the focus groups with each student giving general statements on their social media thoughts and behaviors), there were still probably some group think effects resulting from social influence of the focus group setting.

Third, it can be difficult to keep participants on task due to the social context of the focus group, and indeed, at times we had to steer discussions back to the research topics. Most of the teens were eager to participate and to tell stories based on their personal experiences with social media.

Lastly, access negotiated with the participating schools, and the PI’s travel limitations, meant that all data needed to be collected within the period of one week. We were unable to return to the participants with follow-up questionnaires to enable quantification of findings from the focus groups. This meant that, for example, while it was clear based on data analysis that the overwhelming majority of study participants agreed that there is no true privacy online, we are unable to report the number of participants who held this viewpoint and the number of participants who disagreed. For this reason, one next step in the research process is additional data collection with the goal of creating quantitative descriptions of the initial qualitative results reported here.



### PNG SOCIAL MEDIA ICON SET

28 ICONS IN 5 SIZES 16x16, 24x24, 32x32, 48x48 AND 64x64





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## Findings

### Survey Results

The results of the background survey showed that 91 (92.9%) of participants owned a laptop or desktop computer; 91 (92.9%) had home Internet access; 96 (98.0%) owned a cell phone; and 85 (86.7%) used social media at least once a week. Their computer and cell phone ownership were higher than the national teen average of 80% computer ownership and 78% cell phone ownership, and their social media use was slightly higher than the

national average of 81% (Pew Research, 2014). These results indicate that this group of high school students had higher-than-average digital device ownership and were overwhelmingly active users of a range of social media. Still, there were non-users within the group, and on the whole, there was wide variance in types of device ownership, preferred social media tools and platforms, and frequency of social media use, enabling us to gather input from a wide range of user types.

### Teens' Privacy and Safety Attitudes and Behaviors

In contradiction to the stereotype of teenagers posting personal information online without regard to their personal privacy or safety, the overwhelming majority of the study participants had given thought to the issues of online privacy and safety and expressed concern about maintaining their privacy online. Levels of concern ranged from participants who were very concerned about sharing personal information and who were consequently infrequent contributors to social network sites and other social media, to those who were minimally concerned and who frequently posted large amounts of personal information online with little concern for possible negative consequences.

In regard to privacy perspectives, the study participants expressed four main beliefs across all of the focus groups. First, the majority of the students felt that there is no such thing as true privacy online. This means, they explained, that communication and interaction in social media environments should always be

viewed as taking place in public or semi-public arenas. As a result, most were only willing to post information that they would be willing to share widely in the offline world as well.

Second, the participants expressed nearly universal discomfort with the idea of unintended audiences accessing or capturing their personal information. In many cases this discomfort led them to consider who might see personal information they shared in social media and to worry that information shared for fleeting uses would be accessible in perpetuity. There was widespread concern about potential future employers and college administrators, in particular, viewing evidence of their past risky or taboo behaviors, thereby jeopardizing their future successes, perhaps echoing a common warning voiced by teachers and other school personnel.

Third, for these students the desire to share personal information online coupled with worries about unintended audiences accessing it resulted in ongoing tension between the desire to share and the desire to withhold personal information. Different members of the participant group responded differently to this ten-

sion, leading to a range of sharing patterns, from nearly unrestricted sharing to guarded, infrequent sharing. The participants described participation in social media as a balancing act and a frequent source of tension.

Finally, the data showed that all of these privacy attitudes worked together to influence these teens' technology choices. They chose different social media to reach (and to avoid) specific audiences, and they tailored their messages so that specific audiences would understand (and misunderstand) them. They were very aware which social networks their family members were likely to use, versus those mainly used by their peers, and they made careful decisions about what types of personal information to post according to their understandings of these "imagined audiences" (Marwick & boyd, 2011).

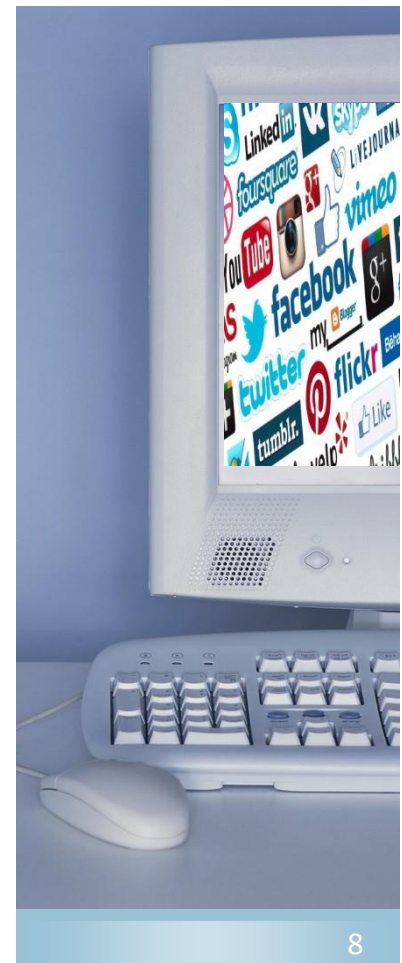
## Safety

As for findings relating to safety perceptions and practices, the study participants were generally aware of some of the safety risks associated with social media use, but as a group they were less concerned with online safety than with online privacy, judging their online activities to be generally safe. Most felt that their physical safety had never been compromised online and that they were safe, experienced users.

Two additional widely held beliefs about online safety can further explain these prevailing attitudes. The first belief was the widespread agreement that online safety is a learned skill that takes time to develop and that develops with increased age, experience, and maturity. The study participants told stories of having learned about the existence of privacy settings from online friends and of having learned about smart social media practices via trial and error. In some cases, negative experiences, such as having had accounts hacked or passwords misused by friends, had led them to think more carefully about their online interactions and to learn to consider the risks and benefits of social media participation before engaging in potentially

risky behaviors.

The second commonly-held safety belief was the idea that teens are more knowledgeable about online safety than younger or older generations. Much as the popular media often portray teens as unsafe social media users, these teens portrayed middle and elementary school students and adults of their parents' and grandparents' generations as unsafe and often reckless users who had little knowledge of or concern with online privacy and safety. These teens also tended to accept the stereotype of teens as "digital natives" (even though this stereotype has been largely disproved in the research and scholarly literatures; see, for example, Kirschner & van Merriënboer, 2013, and Selwyn, 2009.), viewing their own generation as possessing advanced technology knowledge and skills and feeling that due to their greater technological expertise, it was their responsibility to teach younger and older generations safe online practices.



## Suggestions for Future Research

This study built on our own previous research about teens and social media use. It forms a part of a long-term research path that we began in 2008. We intend to continue this work for the foreseeable future, continuing to build rich, user-centered understandings of teens' online behaviors and studying how best to educate teens to become smarter, more productive digital citizens.

For the next phase of the research, we intend to turn to libraries and schools to gather information about programs and services relating

to teens and social media, including a review of libraries' and schools' social media Acceptable Use Policies. We will compare the resulting data to our youth-centered data collected for this project to examine the extent to which library and school social media programs and services match or contradict teens' preferred approaches to the study and use of these technologies. These results will enable us to work closely with libraries and schools to develop further guidelines for best practices in social media programs and services.

## Project Outcomes

We have presented the results of this work as three academic conference presentations. We also have one journal paper currently under review, with two more in progress, as follows:

“Don't be dumb: That's the rule I try to live by”: A closer look at teens' privacy and safety attitudes. Presentation at the Annual Meeting of the Association for Information Science & Technology (ASIS&T), Seattle, WA, November 4, 2014.

“Understanding networked youth and online privacy: Questions, methods and implications.” Refereed panel presentation at the 2014 Annual Meeting of the Association for Information Science & Technology (ASIS&T), Seattle, WA, November 4, 2014.

“A New Role for Libraries: Promoting Teens' Privacy and Safety in the Digital Age.” Presentation at the 2015 Annual

Conference of the Association for Library and Information Science Education (ALISE) in Chicago, IL, January 30, 2015.

Helping Teens Become Safer, Smarter Social Media Users (webpages): <https://onlineprivacysafety-teens.wordpress.com/>.

“Don't be dumb— That's the rule I try to live by”: A closer look at teens' online privacy and safety attitudes. (research journal paper under review)

“I use social media because my friends are all there”: Teens' views on why teens use social media. (research journal paper under development)

“Librarians as social media educators: Recommendations for teaching teens about online privacy and safety. (paper in progress for the professional librarian audience)

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### Pre-Prints or Links to Published Papers

Webpages: <https://onlineprivacysafetyteens.wordpress.com/>.

Pre-prints of papers are not yet available. We will submit them to OCLC as soon as they become available.

## Recommendations for Teaching Teens Best Social Media Practices

In addition to teens' privacy and safety attitudes, as described above, data analysis led to the development of recommendations for teaching teens best social media practices. These recommendations are freely-available as a set of webpages at:

<https://onlineprivacysafetyteens.wordpress.com/>. In brief, they include:

### 10 Tips for Safer Social Media Use:

1. Limit Information Sharing via Privacy Settings
2. Withhold Optional Personal Information
3. Use Pseudonyms or Alternate Required Personal Information
4. Limit Online Friends/Fans
5. Think of the General Public as Your Audience
6. Consider the Possible Consequences before Posting Information Online
7. Remember that Anything You Post will Stay Online Indefinitely
8. Monitor Your Online Content
9. Change Passwords Frequently
10. Use Common Sense Online

### Best Practices for Teaching Teens to Become Safer, Smarter Social Media Users:

1. Teach Teens about Risk-Benefit Analysis
2. Build on Strong Adult-Teen Relationships
3. Offer Hand-Ons Lab Sessions and Live Demonstrations
4. Avoid Scare Tactics; Frame Lessons in Positive Terms
5. Use Personal Stories/Testimonials
6. Take Advantage of Teachable Moments/Incidents
7. Be a Social Media Role Model
8. Favor Education over Restriction

