

# Teens and Communication Technology: The Co-Construction of Privacy and Friendship in Mediated Communication

<<Author's names and contact information omitted for blind review>>

***Abstract:** Teenagers are increasingly using communication technologies to make and maintain friendships. Despite considerable attention from the research community, there are two notable gaps in the literature on privacy and friendship in mediated communication that this paper seeks to fill. First, most studies consider the twin goals of online privacy and friendship in opposition to each other. Second, most studies focus on just one communication technology or application in isolation. In this paper, we take a more comprehensive approach, considering mediated privacy and friendship in conjunction, and considering the ecosystems of technologies that teens use to support their relationships. Our results from a series of semi-structured interviews with teenagers, aged 13-17, suggest that teens' understandings of privacy and friendship in mediated communication are negotiated with respect to one another, rather than in opposition. In addition, teens apply conceptions of privacy not to individual technologies, but rather to ecosystems of technologies that they use to support different types of friendships.*

## Introduction

Recent reports suggest that nearly 93% of American teenagers between the ages of 12 and 17 are online, and most think of the Internet as a place for social interaction (Lenhart, Madden, Macgill, & Smith, 2007). Likewise, teens are increasingly using technology, including computers and mobile phones, to exchange personal messages, images, and videos with friends and acquaintances (Lenart, Arafeh, Smith, & Macgill, 2008; Lenhart et al., 2007). Not surprisingly, this rise in electronic communication has caused some to worry about teens' privacy and personal security online. Although recent evidence suggests that these types of interactions rarely result in the worst forms of exploitation such as kidnapping and sexual assault, the media are nevertheless rife with cautionary tales about what can go wrong when young people delve too deeply and too

freely into the world of electronic communication (Wolak, Finkelhor, Mitchell, & Ybarra, 2008).

Despite general public concern, few have studies have explored how young people balance their desire to connect with others online against concerns about privacy and personal security. We know that young people are increasingly using the Web to make and manage friendships (Lenhart et al., 2007), and that they are also employing a variety of strategies to keep themselves safe online, including using pseudonyms and blocking unknown contacts (Wolak et al., 2008). However, there is a surprising dearth of research that investigates how these desires for friends and privacy, goals which are seemingly at odds with one another, are negotiated in tandem.

On the one hand, making and managing friends on the Internet requires teens to have fairly public online identities. But, on the other hand, their desire to maintain privacy and personal security requires them to take measures to make their online identities inaccessible to others. Our in-depth interviews with 13-17 year olds suggest that teens do not negotiate online friendships and online privacy concerns separately. Instead, their conceptions of electronic privacy are situated within their conceptions of online friendship. As a result, ideas about privacy and personal security on the Internet are not derived from the characteristics of a particular technology or application as we might expect, but rather from the type of relationship that the technology or application is used to support. Further, our research indicates that teens' understandings of privacy and security are not applied to individual technologies, but rather to ecosystems of technologies as they are used more-or-less interchangeably to support one of two primary types of mediated friendships: affective friendships and instrumental friendships. Within

any one type of friendship, a whole set of technologies may be deemed safe or unsafe, but between friendship types, the very same technology can receive wildly different designations.

In the remainder of this paper, we review the literature on teenagers' use of communication technology, paying particular attention to previous work on friendship and privacy in mediated communication. Then, we present a framework for understanding teens' friendships and apply that framework to interpret the results of a series of semi-structured interviews with young people, ages 13-17. Next, we discuss how teens use different ecosystems of communication technologies to support different types of friendship, and how conceptions of friendship influence teens' behaviors with regard to privacy and personal security in mediated communication. Finally, we conclude with a discussion of the implications of our findings, and areas for future research.

## **Related Work**

In her 2002 book, *Young People and New Media*, Sonia Livingstone calls for an increased focus on youth and their use of new media technology. She notes that “there is a notable discrepancy between the high levels of public concern over children and young people’s use of new media and the paucity of empirical research conducted thus far” (p. 3). She goes on to urge researchers to work with youth themselves, rather than polling and interviewing adults about young people’s attitudes and behaviors towards new media, as what children and teens do, and what their parents and teachers think they do, are often markedly different.

Since then, several researchers have responded to Livingstone's call to action, and investigated how young people use new media, particularly their use of the Internet and other social media such as mobile phones. Broadly, much of their work can be grouped into two main focus areas: studies of friendship, and studies of privacy and personal security.

Recent studies from the Pew Internet and American Life Project show that 93% of American youth, ages 12-17, are online and, of these, 55% have profiles on one or more social networking sites where they keep in touch with current friends and make new friends online (Lehnhart & Madden, 2007; Macgill, 2007). Teens also use a variety of other communication technologies and applications, including e-mail, instant messaging (IM), cellular phones, and land-line phones to manage friendships (Schiano et al., 2002).

Most of this mediated communication appears to be dedicated to friends who are also part of a teen's daily, real-world life (Gross, 2004). Rather than using communication technology to make new friends, or communicate with other important people in their lives such as parents and teachers, teens use applications such as instant messaging and social networking sites to cultivate their existing friendships during times when face-to-face communication is not possible (boyd, 2007). As a result, the content of their mediated communications is not generally deeply personal, but rather it is dedicated to fairly mundane topics, such as daily activities and gossip about people at school (Gross, 2004).

For talking with friends, phones, especially cellular phones, which are generally the personal property of the teen and not shared with parents or siblings, tend to be preferred over other communication technologies because they are viewed as direct,

private connections to friends, without the potential for parental interception (Schiano et al., 2002). Many teens describe using the phone to talk or text for extended periods of time with friends they have just seen hours before (March & Fleuriot, 2006; Schiano et al., 2002).

Of all other modes of communication, e-mail was once most preferred by teens for communication with friends. However, more recently, young people have turned towards profile-based applications such as instant messaging (IM) and social networking sites (Lenart, Madden, & Hitlin, 2005). In their review article, boyd and Ellison (2007) describe the rapid global proliferation of these sites among teenagers, beginning with MySpace's launch in 2004. Since then, social networking sites have become deeply integrated into many teens' everyday lives, allowing them to express themselves and socialize with friends outside of the purview of their parents and other adults in their lives (boyd, 2007).

Naturally, any activity that allows children freedom from their parents' oversight and control is a cause for concern for some. Early reports on mediated communication among youth suggested that any amount of online socialization came at the expense of face-to-face interaction, and resulted in social isolation and depression among adolescents (Kraut et al., 1998). However, subsequent studies showed that an initial decline in psychological well-being dissipated over time, and some teens actually experience improved psycho-social outcomes with increased Internet use (Gross, 2004; Kraut et al., 2001).

So, concerns shifted to focus on teens' privacy and security online. Popular press coverage has emphasized the risks that youth face online, particularly from Internet

predators seeking personal information to connect teens' online profiles to real-life identifying information (Gross & Acquisti, 2005). Several articles have noted that there is a contradiction between teens' desires to protect their privacy and their behaviors online, particularly with regard to disclosing personally identifying information such as name and hometown on websites, blogs, and in social networking profiles (Stutzman, 2006). Barnes (2006) called teens' behavior a "privacy paradox," suggesting that they are largely unaware of the public nature of the Internet, and do not realize that the information they share is public, freely available, and potentially putting them at risk. Although some studies have since found that young people use a variety of measures to protect their privacy online (Wolak et al., 2008), the prevailing assumption is still that teens often make risky and uninformed decisions about mediated communications that put their privacy and personal safety at risk.

Our research suggests otherwise. Teens in our study were keenly aware of the risks of electronic communication, and expressed a strong desire to keep their mediated communications private and safe. They described thoughtful decisions about when, how, and where to share personal information, and those decisions were largely based on the relationship they were trying to support. Therefore, we posit that many previous studies overlooked an important component of a teen's decisions to share personal information via communication technology – namely, the type of relationship that the technology was supporting.

Most previous work on teens and communication technology has focused either on friendship *or* on privacy and personal security. As a result, the literature has difficulty reconciling what seem to be inconsistencies in teens' behavior with regard to online

privacy. On the one hand, teens reveal personal information in order to participate in popular forms of mediated communication, such as social networking sites. On the other hand, this behavior seems to jeopardize their privacy and personal safety. Rather than concluding that teens are prioritizing socialization over privacy, here we attempt to resolve this apparent contradiction in behavior by considering friendship and privacy reflexively. We believe that teens do not treat the two separately, prioritizing one over the other, but rather most often consider one in light of the other.

Moreover, most previous work has focused on a single communication technology or application, rather than on the ecosystems of technologies that teens use to support different types of relationships. We believe that this is also an oversight. Although these studies offer great insight into how young people use these devices and applications to facilitate social relationships, they do not consider how technologies are used in conjunction with each other to achieve desired social outcomes. Young people do not use individual communication technologies in a vacuum; instead, they coordinate their communications across several different devices and applications. By focusing on sets of technologies, we hope to offer new insight into how both friendship and privacy are negotiated, not for individual technologies, but rather for ecosystems of technologies that are used relatively interchangeably to support different types of relationships.

In sum, in this paper we aim to make two key contributions. First, by situating our study in terms of friendship and privacy reconciled in conjunction with one another, rather than in opposition, we aim to resolve previous contradictions in the literature and explain how teens can simultaneously be social and protect their privacy and personal safety while engaging in mediated communication. Second, rather than considering

friendship as it is supported by a single communication technology or application, such as mobile phones or social networking sites, we explore how teens use (different) ecosystems of technologies to support different types of friendships.

### **Framework: Affective and Instrumental Friendships**

When we began this work, we originally focused broadly on all types of relationships in the lives of teens. However, after our first round of interviews, we narrowed our focus to friendships – the relationships that teens seemed most passionate and articulate about. The literature shows that friendships are among the most important relationships in a teenager’s life. Perhaps second only to parents in influence, peers occupy a large portion of every adolescent’s waking hours, and they are often the source of a young person’s greatest pleasures and deepest frustrations (Rubin, 1980). During adolescence, or between 10 and 20 years old, children’s reliance on parents decreases, and peers begin to occupy an increasing amount of their time and attention (Brown, 2004). Moreover, as adolescence progresses, peers take on ever-increasing importance, and become the locus of significant social, emotional, and functional support (Savin-Williams & Berndt, 1990).

In their most general sense, “friends” are non-familial relations that serve important functions in the lives of children and adults. Typically, friendships are characterized by loyalty, trust, and a general sense of concern for one another’s welfare, and they serve a variety of functions for young people. As Rubin (1980) elaborates, friends are “security givers, standards against whom one can measure oneself, partners in activities that cannot be engaged in alone, guides to unfamiliar places, and apprentices

who confirm one's own developing sense of competence and expertise" (Rubin, 1980, p. 69).

Broadly, friendships fall into two categories that we will call "instrumental friendships" and "affective friendships." Instrumental friendships are based largely around common interests. Although instrumental friends share mutual trust and affection, these friendships tend to be somewhat limited in scope and depth. In some sense, an instrumental friendship is somewhat accidental, resulting not from a deep affiliation, but rather from the coincidence of two sets of individual goals (Badhwar, 1993). Sometimes, these goals are task-oriented (for instance, wanting to become an expert *Guitar Hero* player), and other times they are more social (for example, wanting someone to gossip with after school). The distinguishing feature of instrumental friendships is not the nature of the shared interest, but rather the fact that if either friend ceases to be useful or interested in the common goal, the friendship will cease to exist (Badhwar, 1993).

By contrast, affective friendships are characterized by a deep appreciation for the other as s/he is, and not for some peripheral interest or goal. Here, a friend is valued as a unique and irreplaceable individual, and friendship is based around central characteristics of the other, such as his/her intellectual, moral, and aesthetic qualities (Badhwar, 1987). Unlike instrumental friendships, which may be relatively temporary as interests develop and change with time, the only reason for an affective friendship to end would be if one or both of the friends fundamentally changes who they are (Badhwar, 1993).

This distinction between affective and instrumental friendships proved to be particularly relevant for our study. As is detailed in the "Results and Discussion" section below, the teenagers we interviewed used communication technology to maintain both

instrumental and affective friendships. However, the ecosystems of devices and applications they used for each varied considerably, as did the notion of privacy attached to the technologies used to support the different types of friendship.

## **Methods & Data**

*Procedure.* Data for this paper were collected in a series of semi-structured interviews with teenagers and their families living in Chicago and the surrounding suburbs. Members of six families, recruited from a convenience sample of the researchers' friends and co-workers, served as key informants. To be eligible to participate in the interviews, each family had to have at least one teenager between the ages of 13-17 living at home at least half the time, one parent or guardian willing to participate in the first interview, and there had to be at least one computer in the home. No other inclusion criteria were applied.

Each key informant family participated in a preliminary semi-structured interview lasting about 2 hours that was designed to build rapport and explore the general technology landscape of the home. Families were told that we were interested in learning more about how teenagers use technology in their daily lives. Teens and parents were interviewed together about several topics including general family life, technology owned by the family and family members, rules about technology (including who pays the bills and how many hours the teenagers were permitted to use various devices), and conflicts that arise over technology use.

At the conclusion of the first interview, each teenager was asked to identify one friend who could participate in a second interview about communication technology and

friendship that also lasted about 2 hours. In general, these interviews were conducted with pairs of teens (one key informant and his/her friend), but occasionally siblings asked to be interviewed in groups, so 4 teenagers (2 key informants and 2 friends) were interviewed together. The second interview focused primarily on friendship, and teens were asked a variety of questions about friendship and technology use, including what communication devices and applications they used to keep in touch with friends, who they communicated with online, and what measures (if any) they took to protect their privacy and personal security online. In addition, teens completed two design exercises that served as discussion prompts within the interview. In the first, they were asked to design a device that would help them keep in touch with their best friend, and in the second they were asked to compare lists of the friends they communicated with most often in the real world and online.

All interviews were conducted in the homes of the key informant families between February and July of 2008. Interviews were audio and videotaped, and all participants were given gift cards to local stores of their choosing as compensation for their participation.

***Participants.*** A total of 27 people participated in our interviews. Of these, 20 (11 boys, 9 girls) were teenagers between the ages of 12 and 18 (all teens were between 13 and 17 years old at some point in the interview process; however, some had birthdays between the first and second interviews, accounting for the slightly wider age range). All of the participants were middle or upper-middle class, living in single-family homes or condominiums that they owned. All but four of the teenagers lived in fairly urban areas,

with easy access to public transportation in and out of downtown Chicago. The remaining four teens lived approximately 15 miles from downtown Chicago in a suburban area.

The participants represented a somewhat diverse range of racial and family backgrounds. 18 of 27 participants were Caucasian, one was Hispanic, two were African-American, one was Asian, and four were mixed-race (2 Hispanic/Caucasian, 2 Asian/Caucasian). Four of the six key informant families were two-parent households, one was single-parent, and one was led by a grandparent who was appointed legal guardian of the teens.

***Analysis.*** Audiotapes from each interview were fully transcribed and subjected to a thematic analysis. Initially, the researchers used the following six themes drawn from the interview protocol: Communication with Family, Communication with Friends, Technology Device or Application Use, Privacy and Security, Rules, and Conflicts. After reviewing the transcripts once, we dropped the Communication with Family theme, added a Communication with Strangers theme, and divided the Communication with Friends theme into Face-to-Face Communication, Mediated Communication, Affective Friendships, and Instrumental Friendships. Transcript portions were then organized by theme and quotations were selected for inclusion in the “Results and Discussion” section that follows. Although the quotations that appear below were drawn from individual transcripts, they are illustrative of the types of responses that were repeated across several, if not all, of the interviews.

## **Results and Discussion**

### **Affective Friendships**

*Technology Ecosystems.* Prior research has already revealed teenagers to be savvy users of technology, capable of managing online and offline contacts while sustaining an appropriate level of privacy. However, less is known about the ecosystem of technological mechanisms by which teenagers manage and support friendships. Given the ubiquity of technology in virtually every facet of teenage life, from school to home to hanging out, this deficit is puzzling. The teens we interviewed utilize a diversity of platforms to keep in touch with friends from school, as well as establish new relationships online (with the former activity being by far the most prevalent). In the case of maintaining personal friendships, which we characterize primarily as affective friendships as described above, this ecosystem of communicative technologies is comprised of interchangeable parts and designed to supplement and manage face to face interaction. Sister and brother Elizabeth<sup>1</sup>, 14, and Brian, 16, explain:

INTERVIEWER: Ok. Um so when you Facebook with your friends, **what kinds of things are you talking about?**

ELIZABETH: Just like “hey, what’s up? How’s it going?” Just stuff like that normally. Or we’ll be like “**what are you doing over the weekend?**” or “**what are you doing tonight?**” some-just like “how was your day?” Pretty much that’s it.

BRIAN: I don’t know, like I talk to my brother sometimes, so sometimes he’ll leave me messages about stuff that’s going on, like when uh I was supposed to buy him some concert tickets, so he was talking to me about that. Also um **about going down to see him, like going down to U of I to see him on the weekend.** So that’s like one of the things. And uh I have like friends at other schools too, so sometimes **they’ll like see what I’m doing over the weekend, stuff like that.** And then uh also like uh since the NCAA tournament’s on, like one of my friends is keeping score, so he’ll post the scores. But it’s normally stuff that’s not really like instant, it’s normally stuff that can wait or that isn’t really that important to begin with, so-

Social networking sites like Facebook and MySpace were frequently mentioned, and serve primarily as a means to organize offline contacts and facilitate interaction in the

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<sup>1</sup> Participants’ names have been changed to maintain confidentiality.

real world, and the interviews made it clear that teens spend a majority of their time online communicating with friends from the real world. Elizabeth, 14, explains:

ELIZABETH: It's just pretty much **my best friends is who I talk to online**. I don't-yeah.

INTERVIEWER: Ok. So there's just a **high transfer** like from the **real world to online world**?

ELIZABETH: **Yeah**.

Within affective friendships, the technology itself is rendered less salient in light of the history of communication between the teen and her peers in the real world; it is of secondary importance to the relationship it helps sustain. Therefore, individual communication technologies, whether in the form of social networking sites, e-mail, instant messaging, or sending text messages via mobile phone, are themselves interchangeable. Friends, Jennifer, 16, and Lauren, 18, explain:

INTERVIEWER: So when would you **text or call someone versus messaging them** on MySpace?

JENNIFER: If you're on-if **you happen to be on the computer, you can message them, but texting's better, cause usually people always have their phone on, like or on them, so they'll get a hold of you**. MySpace, they have to go to the computer and check it. So that's why I haven't really gotten on MySpace as much, cause of my-we got phones like a year and a half ago, so-

LAUREN: For me it's like, I don't have-**I have more people on MySpace than I do on my phone**, so like certain friends I'll text and stuff, but certain friends I didn't ask them for their phone number, just cause I don't-I'm not going to text them in school or call them, cause they're in school too, you know, like my cousin sometimes he and me will text during class and stuff.

The teens we interviewed seemed equally comfortable conversing through any of the communication technologies available to them and they were able to utilize communication technologies like cell phones, social networking sites, or IM, that have traditionally been thought of as varying in communicative richness, to talk with close friends from the real world with no noticeable loss of fidelity. However, they also

articulated a clear preference for face-to-face interaction when possible, and therefore engaged these technologies in strictly a supporting capacity.

Interestingly, in the absence of face-to-face contact, technology may serve as a *surrogate* for actual interaction, but one that is quickly abandoned once the latter becomes available. Andy, 13, explains:

ANDY: Um well I mean I would used to talk to people online, because we used to go to different schools, like-like I wouldn't really talk to the people who went to Orrington, which is the elementary school I went to, online. But I would talk maybe to the people that like say, my friend Michael knew. And I would become friends with them through there, and I would talk to them cause I didn't see them that much. **I like hardly saw them, so that's why I talked to them.** But no other reason, it's just cause I didn't see them that much, because **if you really see the person, you don't really want to talk to them like ten minutes after you just saw them.**

In sum, teens are using a variety of communication technologies and applications, including social networking sites, instant messaging, mobile phones, and land-line phones to support their affective friendships, particularly when face-to-face communication is not an option. They do not articulate a clear preference for any one technology, instead choosing whichever technology is most convenient at the time. Interestingly, there are a few technologies and applications that are notably absent from the mix – namely e-mail, online bulletin boards or forums, and online games. We will see that these applications become much more important for cultivating instrumental friendships, described below.

***Privacy and Security.*** Given the relative interchangeability of technologies used to support affective friendships, it is perhaps not surprising that all of the devices and applications used to support these relationships tended to take on privacy and security designations similar to face-to-face communication. In some cases, technology serves as a surrogate for face-to-face communication, affording a similar level of safety in

situations where teens were alone. Friends Elizabeth and Sarah, both 14, give an example:

ELIZABETH: Sometimes if like-I guess **we call each other sometimes, like if we're walking somewhere, and we're-we don't want to walk by ourselves.**

INTERVIEWER: Ok. So what do you mean if you don't want to walk by yourself?

SARAH: Like **if we're walking home, but we're like walking by ourselves, we'll call someone and it feels better.**

INTERVIEWER: Ok.

ELIZABETH: **Cause we'd be like talking to someone.**

SARAH: Yeah.

In this case, the technology makes the girls feel safer because it affords access to affective friends who can serve as companions while walking alone. Whether the teens are actually safer walking alone or walking alone while on the phone is of little consequence. For Elizabeth and Sarah, the perception of walking with someone creates a sense of personal security similar to what they would feel if they were literally walking together.

In addition to providing access to friends for physical security purposes, technologies that support affective friendships were also frequently described as inherently safe. The following exchange between Elizabeth, 14, Brian, 16, and their mother illustrates:

MOTHER: Well it's usually for people that you know, but I think it's people that you know, people that you know, people that you know, when you're having chat-conversation with them, you should be with people that you know. Which, **I know, you tend to think "well why would I want to talk to anybody that's not my friend", but-**

BRIAN: Yeah **you can't really do that on Facebook**, cause [inaudible]

ELIZABETH: Cause **you need to be friends** with them first.

BRIAN: You do, but then **you could get friends of friends of friends that seem to become your friend.**

ELIZABETH: **No one does that.**

INTERVIEWER: No one does that?

MOTHER: You, don't do that? Ok.

INTERVIEWER: So would you say that all the people in your Facebook friend list you've met in real life?

BRIAN: I don't know, **some people try to friend me that I don't really know**, that like I met once or something, but it's not really a problem if anybody like- cause they're normally in high school, and if they're not then it doesn't really matter. It's not like- **on Facebook it's not like anything can really happen.**

Although Brian is fully aware that he may have “friends” on his Facebook page that are, in fact, strangers that he has met only once or not at all, he does not seem to be concerned about any of the dangers typically ascribed to online stranger contact. Because Facebook is typically used to support affective friendships, he seems to grant the whole application an umbrella of safety that overrides any potential risk that may arise when networks grow to include individuals who are not actually friends.

### **Instrumental Friendships**

*Technology Ecosystems.* The cultivation and maintenance of affective friendships offline is by far the most common way in which communication technologies function in the everyday lives of the teens we interviewed. However, these teens are equally adept at using the technology available to them to develop and broadcast their interests in a variety of extracurricular subjects. In the process, they interact with others (predominantly strangers) who share their passions, but the instrumental friendships forged in these more public spaces differ systematically from their more intimate counterparts.

The most striking difference is the relationship between online communication and face-to-face interaction in the real world. Whereas teenagers conversing with their affective friends on IM about school or weekend plans do so with the expectation that they will see these people offline, this expectation simply does not carry over to instrumental friendships. Rather, because most instrumental friendships are sustained based on the sharing of content (whether in the form of text, art, media, or game-play), the technology itself is an integral part of the relationship, rather than merely a means to support it.

Further, the ecosystems of devices and applications that support instrumental friendships do not traverse the boundaries of real- and virtual-worlds, as we found with affective friendships. Rather, instrumental friendships were almost always supported by web-based communications, albeit of many different kinds. Alex, 16, explains:

INTERVIEWER: Now what about your **friends that you met through the Wicked site**? Did you give them your MySpace first or your phone first?

ALEX: Um my MySpace. **They don't have my phone, I don't have their phones.**

INTERVIEWER: They don't have your phone number?

ALEX: Just cause **we just e-mail each other** and stuff, and **sometimes we talk on like AIM** and stuff, so those are like live chats and we'll like-I know there's like a lotto, and we've seen it more than once, obviously, so **if I know oh, they're going down today, you know, we'll talk the next day or that night, just how their day was and stuff.** But **I really don't call them** unless I was meeting up with them or something, I would ask them for their number.

INTERVIEWER: But that's only happened once, right? You said you've only met one.

ALEX: **I've only met one, and that was by coincidence.**

In this case, Alex has developed several instrumental friendships centered around a shared interest in the musical *Wicked*. We can see that she uses various web-based communication tools (many of which were rarely used for affective friends), including

the forums and bulletin boards on the *Wicked* fan site, e-mail, and instant messaging interchangeably. However, phone and face-to-face, which were grouped with these technologies for affective friends, stand in a class of their own with instrumental friendships, reserved only for rare occasions, if at all.

Friends Sarah and Elizabeth, 14, further explain how the relative salience of technologies and the friendships they support are reversed for instrumental friends from what we found with affective friends. For instrumental friends, the technologies are often more important than the relationships:

INTERVIEWER: Ok. When you read someone's Xanga, um is it usually someone that you know, or other people that you don't actually know?

SARAH: It's-you usually look at people's that you know, but I mean sometimes you can-

ELIZABETH: No, it-like **it's who I'm friends with** on the Xanga website. So it's just like Rachel, Carolyn, Kate, and a couple other people.

SARAH: Yeah, you-**generally you stick to the people you know**, but like you can just like-there are like blog rings or whatever, and it's like **topics that you're interested in, and you can click them and find other people that are interested in that topic**. So you can go read theirs, and like see-and I guess you could-

Here, Sarah is describing the way in which blogs are organized by topic on a popular website, Xanga, to facilitate easy browsing based on specific user interests. While the girls do read the blogs of affective friends they know in real-life, they are also attracted to blogs on certain topics that are written by people they do not know, and do not care to know outside the context of the blog. In this case, the technology itself no longer simply mediates the relationship between a teenager and another individual, as was often the case in affective friendships. Instead, the affordances of the technology define the interaction, and by extension the friendships it supports. Communication is almost exclusively centered on the interest itself (in this case blog topics), rather than the

relationship, and as a result there is seldom occasion to broach personal subjects. Twins

Jennifer and Alex, 16, explain:

INTERVIEWER: So are there other cases where you're talking with people-like strangers online? Do you think that's an ok thing to do?

JENNIFER: I think it's stupid, I don't think you should do it. I don't do it, cause of lack of time, but- [laughing]

ALEX: Like-like on the game or something I will, but **I'll talk as my character**, I won't be talking like me, and **I won't ask them like oh, where do you live and stuff like that, and I won't answer anything** like, but-

Alex articulates the distinction she makes between her offline and online lives when interacting with individuals she does not know online, in this case through a computer game. While her online friends serve an important instrumental purpose – to provide support and entertainment in the game – she is not interested in learning more about their real lives or otherwise converting them into affective friends. This careful and deliberate segmentation is markedly different from the fluidity and interchangeability of technologies used to support affective friendships. Here, the forms of communication technology deployed are no longer interchangeable, but are instead as singular as the topics of conversation themselves.

***Privacy and Security.*** The delineation between offline and online identity in the context of instrumental friendships, ubiquitous in the descriptions of the teens we interviewed, has a number of implications for how they conceive of privacy and security within these interactions. The above excerpt from Jennifer and Alex indicates how salient the division becomes, and the agency teens have to constrain disclosures that threaten to reveal the details of their private lives. Most importantly, the teens we interviewed drew clear boundaries around their instrumental friendships, separating them from affective

friendships in a way that impeded any degree of crossover between the two groups.

Friends Nicholas and Andy, both 13, explain:

INTERVIEWER: Ok. Nicholas, do you think that um someone-an online friend could ever be **as close** as someone who was on your friend chart?

NICHOLAS: Like you mean an online friend that you just know from online? Um no, because if **you don't really meet them**, then **you don't really know what they're like** or something.

ANDY: Yeah, I mean like you don't know-like **they might be like-say stuff online that like they normally wouldn't say in real life** because they don't want other people to like hear it, or like-so they like-you get to know stuff about people, but you don't like get to know the person, you get to know stuff about them. **You don't like-to get to know like their personality** or anything.

These relationships may serve a valuable purpose in a teen's life, offering them a community of experts to consult over their interests when their real world friends are unable or unwilling to do so. However, the interviews we conducted underscore the reality that teens are able to delineate clearly between their affective and instrumental friends, and adjust their behavior accordingly. There is also a conscious attempt on the part of teens to limit access to themselves when balancing instrumental friendships that is not present within their affective counterparts. Thomas, 16, and Aaron, 13, discuss how they actively protect themselves when they post videos and comments on the popular media sharing site, YouTube:

THOMAS: **I don't think it's under our actual names.**

AARON: Yeah, **it's not-to be safe.**

INTERVIEWER: So why-why do you change your names?

AARON: Well of course-yeah, safety on the Internet.

THOMAS: Well that's-that dates back to the **safety on the Internet speech that our parents gave us** a long time ago.

AARON: And because of- well yeah.

THOMAS: Since then, I've-I mean **I've been using my [real] name a lot for other things**, but it's just, you know, a general rule. **We know about the problems with the Internet.**

Although the boys value the relationships they have developed with instrumental friends on YouTube, they use pseudonyms to conceal their identities to these people (something they do not do on sites such as Facebook and MySpace, which are dedicated to more affective friendships). Moreover, certain technologies that were deemed perfectly safe when they supported affective relationships become taboo for instrumental friends. Rather than serving as simply an alternative and equally efficient means of keeping in touch with close friends offline, in the context of instrumental friendships, the teens we interviewed clearly distinguish between technologies that are appropriate to use and those that are not. Cell phones, for example, become a means to differentiate between offline and online identities, and, for the sake of maintaining the privacy and security they value, something that is not readily used with instrumental friends. Twins Jennifer and Alex, 16, explain:

INTERVIEWER: Ok. Uh would you say that you have more people in your MySpace like buddy list or friend list, or more people in your phone?

JENNIFER: MySpace. Cause **MySpace, you have more like acquaintances, like people just in the class of 2010** will like add us just to get their friend count up or something stupid like that.

ALEX: Yeah, like people will have like 3000 friends, and like-

JENNIFER: Yeah, and half of them it's like you said hi to them one time.

ALEX: Yeah, **half of them I'm sure they don't know.**

JENNIFER: Phone-like **phone if it's like someone that I really want to talk to, or like my best friends** and stuff like that.

Here, the twins distinguish between the social networking site MySpace, where they might have thousands of friends with shared interests (being in the class of 2010, in this case), and the phone, which is reserved only for close friends. Alex goes on to explain how breaching the boundaries of an instrumental friendship would be cause for

concern. Here, she discusses conversations with instrumental friends in the online game Runescape:

ALEX: Well someone who had helped me earlier when I asked for help, and then just-but like you can meet people, like **I never give them any personal information like that, it's just stupid and wrong**, like I don't want to talk to you through a game, but like that was- **the only reason that I went on was just to, you know, just play the game and stuff.**

Alex goes on to suggest that they would very likely terminate a friendship with an instrumental friend who asks too many personal questions. Although teens value these relationships, some of which are cultivated over many weeks or months spent pursuing a shared interest online, concerns about privacy and security trump any feelings they have for these friends, and teens will use safety mechanisms built into most online social applications (such as blocking other users or reporting offenders to system administrators) to end instrumental friendships that breach the online/offline boundary.

## **Conclusions & Future Research**

In this paper, we offer new insight into how teens are using ecosystems of communication technologies to support different types of friendship, and how notions of privacy and personal security are not negotiated around the technologies themselves, as past research has emphasized, but around the relationships they are being used to support. Specifically, we found that teens use technology to communicate with both affective and instrumental friends, and it is this distinction that fuels the divergent frameworks articulated by the teens.

For affective friends, where the emphasis is on the relationship and not a shared interest, technologies are relatively less salient and may be used interchangeably to

manage and supplement face-to face communication. As a result, the set of technologies used to support affective friends are afforded the same privacy and security designations as face-to-face communication. That is, teens generally consider these technologies relatively safe and worry little about the risks of disclosing personal or private information when using them.

In contrast, technology is extremely salient when communicating with instrumental friends, and it often forms the basis for the friendship. While teens also use ecosystems of technologies to support instrumental friendships, these technologies are almost exclusively Internet-based. Teenagers clearly delineate between online and offline communication with their instrumental friends, and use a variety of strategies to ensure that instrumental friends do not have access to their real-world identities. While a breach of the boundary between online and offline communication would pass unnoticed when committed by an affective friend, an instrumental friendship would likely be terminated over such a transgression, further highlighting the pragmatic focus of these relationships.

Despite the contributions this paper has made, there are several limitations to our research that should be noted. Perhaps most significantly, the teens we interviewed are all relatively homogenous in terms of their socioeconomic status and geographic location. Our sample was predominantly middle- to upper-middle class and resided in urban or suburban areas. It is likely that teens living in more rural areas or who can't afford as much technology would have quite different perceptions of the robustness of their technology ecosystems and the specifics of their relational communication strategies, as a function of general availability. Second, the non-randomness of our sample, which was based on convenience, reduces the generalizability of our qualitative findings beyond the

teens we interviewed. Finally, our methodology relied exclusively on self-report, minimizing our access to actual observed behaviors and practices. The general stigma associated with sharing personal information with strangers online may have reduced the likelihood that the teenagers we spoke to would admit to doing so.

Nevertheless, we believe that this study represents a novel and important first step in considering how teens use different ecosystems of technologies to support different types of friendship, and how their notions of privacy and personal security in mediated communication are dependent upon whether they are cultivating affective or instrumental friendships. Future research might extend this work by investigating if and how our findings extend to teenagers who interact within persistent virtual worlds such as Second Life and World of Warcraft. Currently, there is almost no discussion of friendship and privacy in these worlds, or other sites where people have ongoing relationships with strangers. Although the teens we interviewed reported relatively little involvement in online worlds, it would be interesting to see whether teens would conceive of the friendships forged in these spaces as the same or different from the affective and instrumental friendships we have discussed here.

#### **Acknowledgements**

The authors would like to thank all of the people who participated in this study, particularly the teenagers who graciously shared their experiences with us. We would also like to thank Intel Corporation and the People and Practices Research Group for generously funding this project. Finally, we'd like to thank Maria Bezaitis, Matthew Yapchaian, Tom Boellstorff, Justine Cassell and Meg Cramer for their insights and advice on this work.

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