

Teen Use of Messaging Media

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ABSTRACT

Teenagers comprise a large proportion of our population, and their technology use is a bellwether of future trends. Today's teens are coming of age with the rapid development of advanced communication and media tools. This paper describes a study exploring teen communication media usage patterns and their design implications.

Keywords

Teenagers, teens, communication, email, IM, cell phone

INTRODUCTION

One out of 3 people in the world today is a teenager. US teens comprise 13% of the population, the largest generation in history [1]. With greater access to technology than any before, today's youth are coming of age with the rapid growth of the Internet and global adoption of mobile phones and other wireless devices. Seen as a bellwether of future trends with substantial spending power, teens are a focus of media attention and market research. Yet aside from large quantitative use surveys [3] and a barrage of untested media reports, there is little publicly available research to inform designers and other HCI practitioners on young people's motivations and experiences in using communication media. We conducted a preliminary study to do just that.

Social connection and communication have always been of fundamental importance to teenagers. What's new is the panoply of media options available to this "instant-messenger (IM) generation" [3], whose mobile phone ownership is predicted to soon reach 85% by age 18 [2]. As financial and technological constraints decline, what can we expect teen communication patterns to look like? Are there media choice and use patterns specific to this age group, and how might they differ by gender and change with age? What are the implications for design?

METHOD

We conducted a paper-and-pencil *survey* and a series of *ethnographic interviews*. Survey participants were widely recruited in the affluent and technologically sophisticated Palo Alto, CA area. Sixty-five individuals (23 boys/38 girls,

aged 12-18) responded, mostly from one 7th grade & two 12th grade classes and a girl scout troop. The survey consisted of 10 forced-choice questions on communication media use patterns, and one question on after-school schedules; it took only minutes to complete.

Participants for the ethnographic interviews included 13 teens, (6 boys/7 girls), 11 survey respondents & 2 siblings. All had home Internet access; 5 had cell phones & 2, pagers. Interviews lasted 3 hours, including some observations, a discussion of their social networks (referencing buddy lists, address books, phone lists, etc., and including a *social map* task, in which teens drew "a map of their friends and how they are connected to one another,") and an extended unstructured discussion of communication patterns & preferences and media use experiences. We especially focused on recent specific examples. Interviews were audiotaped and some photos were taken; social maps were sketched on a blank sheet of paper. Converging findings came from interviews with 13 more local teens in different but related studies.

RESULTS AND DISCUSSION

Major findings are given below; full report sent on request.

Email was checked by surveyed teens at least once a night, with no significant age or gender differences. Most interviewees didn't consider this to be a high use of email. They saw email as mostly useful for interactions with adults (e.g., coaches, teachers, employers), often in-group messages. Their inboxes held only a few messages, mostly with teachers and older relatives, and some online transactions. Friends' emails were mostly forwards or homework-related, with some plan-making as well. Email seemed preferred for long texts (detailed instructions, long letters), for sending or forwarding jokes, files, or greeting cards, and for asynchronous messaging.

IM permitted direct, immediate, casual online contact. Forty three percent of surveyed 7th graders ("young teens") v 28% of 12th graders ("older teens") reported IMing "all the time," a statistically significant difference that is contrary to recent national survey findings [3]. We found a trend for younger girls to IM more than others. Interviewees described IM as something to do when "bored," and a way to connect & "hang out," chatting about "anything; nothing." Once online, IMing is easier than disconnecting to make phone calls. Some preferred IM for sending

multiple inquiries (e.g., on homework). IM also helped overcome shyness in broaching difficult topics with friends and facilitated online flirting. Some young girls played with group IMing and flirted with boys whose handles they learned through mutual friends. Though romantically immature, they showed humor and a healthy skepticism of online identities. Younger teens had more “time to kill” and were satisfied with a lower depth of interaction. Older teens had less free time but more direct access to friends (cars, cells); many said they IMed much less than they did when younger. This decrease in IM use with age may reverse when teens go to college and are online more, since they have more financial constraints and more remote friends.

These teens were not the hyperactive multitaskers often portrayed in the media. Some said they have IMed with as many as 4 or 5 people at once [3], but 1 or 2 was more common, especially with age. Delays in IM responding were seen as rude if attributable to multitasking. Teens might keep several IM windows open and listen to music while doing homework, but then focus and stop IMing when they needed to concentrate. Buddy lists had from 1 to 90 contacts, typically consisting of a few (~5) core friends contacted often (perhaps via multiple “handles”), several infrequently contacted remote friends and acquaintances, and often many others they could no longer identify. Lists tended towards minimal or no organization. AOL’s IM (AIM) universal; a few used other IMs as well.

Cell phones were owned by 64% of surveyed older teens v 10% of young teens; a statistically significant effect. Cell phones tended to be bought by parents on family plans, often when teens start dating or driving, largely for security/emergency reasons. Teens enjoyed cell phone convenience, and some had to pay for overuse. Cell phones provided contact with family and friends and were used to continuously co-ordinate and refine plans (“hyper-coordinate”[2]). Cell phones provide direct private connection (without family intervention), and sometimes became the primary contact medium [2]. Pagers were cheaper but rarer; most teens bought them themselves. Pager codes (like IM abbreviations) were commonly used.

Home phones, seen as “free” and available, were the most-used communication medium [3]. In the survey, girls reported spending significantly more time on the phone than did boys (means=1.24 v 0.67 hrs/night). Interviewed girls described regularly chatting on the (cordless) phone for hours, even with friends they’d just seen. Phones seemed more “personal” than online media and were used to discuss plans, assignments, “anything and everything”.

Teens’ social networks were reflected in their communication patterns. Close friends typically saw each other often (even daily), but they also were in contact regularly via various communication media, including the phone (cell or home) and IM. Predominant use of IM alone

tended to be reserved for remote friends and cousins, classmates, acquaintances and friends of friends. Of course, media choice was also influenced by friends’ possessions and preferences. *Social maps* focused on close local friends that the teen “hung out” with; they ranged from 6 to 25 (mode=9; mean=11.3), and included school and neighborhood friends; fellow club, team or church members, friends of other friends and some family. Little hierarchical structure was shown. Teens may “hang out” in groups, but 1 or 2 “best” friends were readily identified. Closeness seemed more related to the ability to talk openly and honestly “about everything” than to frequency of contact *per se*. Most interviewees memorized their closest friends’ phone numbers. Indeed, few *contact management* tools were used; most teens relied on memory or unorganized slips of paper, with only moderate success.

Additional findings: Despite reports of teen technical wizardry [3], many of these Silicon Valley interviewees seemed more *familiar* than *skilled* with technology. Most used only core functionality, and readily accepted failures, making little effort to understand. Most shared Internet and cell phone access with family members, and reported less influence than expected [3] on major family purchases (computers, cell phones). Younger teens often focused on “coolness,” personalization and entertainment factors; for older teens, utility was of primary concern.

CONCLUSIONS

These findings provide a rich view of teen communication patterns, and demonstrate the importance of going beyond large survey data to better understand nuances of usage to temper untested claims. They will serve to inform further interviews and to suggest converging future research. Design implications include the following:

--Lightweight tools to connect with friends (and romantic interests), reduce boredom, and co-ordinate plans are of great interest to teens.

--Focus on core communication functionality; teens rarely use extra features, especially if they are hidden.

--Devices should be easy to use, require little maintenance, and be either inexpensive or attractive to parents.

--Teen technology usage differs for boys and girls, and it changes with age. Systems should accommodate differences or be designed with a demographic in mind.

--Usable contact management tools seem to be a real, if under-appreciated, need.

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