Teens as Designers of Social Networks

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ABSTRACT
What happens when teens design their own social networks online? What kinds of communities will form and what patterns of participation might emerge? We are designing a series of workshops with Atlanta teens to teach them to build their own social networks using the website Ning.com. Our goal is to broaden participation on the Web by engaging teens as designers of social networks and to examine what the next generation of social networking sites might look like.

INTRODUCTION
Our research is part of an NSF Broadening Participation in Computing alliance focused on increasing the diversity of computing students in the state of Georgia. The goal of this alliance is to influence K-12 and undergraduate students' perceptions of computing and motivate them to consider technology related majors and careers [6].

Our research within this group has focused on understanding why teens love hanging out on the computer but avoid technology-related degrees and careers. Through a series of ethnographic and design-based studies [6, 11-13], we have moved towards an area of interventionist research that has been underexplored: what happens when teens design their own social networks online? What happens when they are given the opportunity to create, design, administer, and govern their own communities on the Web?

We are piloting a series of workshops with teens in the Atlanta area in which they design their own social networks using the website Ning.com. Ning allows users to easily create and customize their own social networks, enabling low barriers to entry, yet also supports advanced development, privacy setting, and control of who can join the community. Some of our observations of teens' behavior suggest different, or perhaps supplementary, types of behavior to those that we see in familiar social networks like Facebook and MySpace (*e.g.* see [5]).

We observed that participation is often deeply local [7] and intensely social. In this position paper, we briefly describe our past research and the findings that guide our current study. Our research is guided by three hypotheses:

- Teens love to hang out on social networking sites; we can leverage this interest to engage them as producers on the web;
- Social learning theory explains social influence among peer groups; we can apply this theory to influence attitudes and behavior online;
- The next generation of social networking sites may look different than current ones; teens can help be designers of these sites;

SOCIAL LEARNING THEORY
The social learning theory of Albert Bandura describes how people learn through observation and imitation of others' behavior [2]. Social learning theory suggests that homogenous social classes will reinforce distinct types of behavior. Groups which offer reinforcement, such as gangs, peer groups, or social groups will reinforce behavior through a process of negotiation and formalization of norms [1]. Social learning theory states that both deviant and normative conformist human behavior is learned through a combination of environment and psychological factors. Social learning theory has been used to explain computer use and media effects as a function of peer reinforcement in social groups:

> *"Most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action" [3].*

Social learning can be a necessary and important part of adolescent development. Teens define their identity by experimenting and marking boundaries. Both conformist and deviant behavior in social networking sites, in particular, may be a critical part of the process through which teens can develop literacy and awareness online.

FORMATIVE WORK
Discussions of the "digital divide" in the 1990's implied that providing access to the web would democratize participation online; that simply enabling access to information would move the marginalized towards equal participation in public life [10]. Yet, it is not clear that pervasive access to the Internet alleviates social inequalities: "current design features distribute costs so that users are assumed to be passive receivers and that producers of popular content must be moderately well-

capitalized" [10]. Indeed, the profound social influence of homogenous groups of peers suggests that the conditions of unequal participation will be perpetuated and reinforced among marginalized groups.

Our early research involved interviewing and observing from local Atlanta schools to learn more about their perceptions of computing [12]. Informed by their enthusiasm for design-based projects and the importance of real-world relevance, we developed and implemented an introduction to HCI course for teenagers that taught them about design principles and designing for the user. We taught this course during a 6-week summer program in Atlanta. We found that participants loved sketching design ideas on paper and transferring them to the computer and were excited that their projects had real-world relevance. However, while participants enjoyed the 6-week project, their long-term attitudes were largely unaffected [13].

Our own research and others' confirms that simply providing teens with access to information does not automatically transform them into budding knowledge economy workers, and connecting them with role models in the field does not necessarily inspire them to new heights. Diverse access does not imply equal participation.

CURRENT WORK

We are running a series of workshops with teens at an Atlanta computer clubhouse in which we will teach them to design social networks on Ning.com. The workshop curriculum is modeled after the popular graduate and undergraduate Design of Online Communities courses at Georgia Tech where students learn how online communities are designed, what makes them successful, and techniques for designing for the social web[1].

We are combining complementary quantitative and qualitative methods to gather data about what kinds of networks are formed, who joins the networks, and what interactions take place. We are using the Ning Developer API to gather detailed analytic metrics of network formation and activity as well as interviews and observation to understand participant behavior, attitudes, and design rationales.

An Emerging Class of Social Networks

Participants at the clubhouse come from five nearby urban schools and share similar socio-economic status and ethnic backgrounds. Most are high-school aged and African-American. To familiarize ourselves with this community, our fieldwork has involved visiting the clubhouse observing teens' free-time use of the Internet.

We observed that participation in social networks was ad-hoc—short-lived and spontaneous—and deeply contextualized in local culture. Their cultural identity is historical and deep-rooted, and often characterized by intensely close familial and community ties [4]. Teens at the Atlanta clubhouses spend upwards of six hours together at school, and at least an additional three hours at the clubhouse. Many spend much of their time outside of the normative 9-5 workday with the same groups of people [4].

Our observations of this particular group suggested that their participation in these ad-hoc, local social networks was less emotionally committed, more focused on topics of interest than networks of interest, and more fleeting (*e.g.* based on events like going to the movies, or fad topics like a new band).

TEENS AS DESIGNERS OF SOCIAL NETWORKS

Teens are imparted marginalized statuses in society based on low prestige, limited financial independence, a de-emphasis on production, and exemption from work responsibilities [8]. Furthermore, public access in schools, libraries, and after school programs produces different types of participation [9]. The creators of MySpace, YouTube, LiveJournal, and Facebook are all young people that possessed the desire to create something on the Internet, but they are not a diverse group.

Large networks like Facebook and MySpace can reinforce existing ties and enable new ones. Their reach is international and their technology global. Despite the rhetoric of networked economies and global societies, some of the relationships they support are deeply local. How do patterns of participation and governance change when teens become owner, creator, and administrator of their social networks? Are these networks more or less homogenous, and to what extent do we want to support homogeneity and heterogeneity? Our goal in this workshop is to understand patterns of use in emerging social networks and ways in which we can broaden participation among diverse social groups as designers and users of these networks.

ACKNOWLEDGMENTS

This work is supported by NSF BPC #0634629.

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