Social Inclusion in High School: A baseline behavioral study to inform the design of pro-diversity technology

Peyina Lin
The Information School
University of Washington

pl3@uw.edu

ABSTRACT

While social groups and social technologies play important roles in the lives of American high school youth, it is not well understood how these two aspects structure opportunities for civic participation and shape social boundaries. This study reports work-to-date on how group and friendship structures affect high school students' extracurricular and civic participation. Future study phases aim at describing how social technologies, like Facebook, MySpace, instant messaging, and mobile technologies are used in friendship and extracurricular contexts, and whether social technologies affect the interrelationships between friendship structures and extracurricular participation. Expected contributions include revealing the potential of social technologies to restructure friendships and opportunities for participation from diverse youth.

Categories and Subject Descriptors

H.1.2 [**User/Machine Systems**]: Human Factors– *effects of social structure on interaction.* H.5.3 [**Group and Organization Interfaces**]: Collaborative computing—technology for social inclusion.

General Terms

Human Factors.

Keywords

Social technologies, social media, high school social groups, friendship structures, extracurricular participation, civic participation, social inclusion, diversity.

1. INTRODUCTION

Extracurricular activities in high schools often aim to give students the opportunity to take part in activities of interest, develop sense of community and expanded sense of self. However, high school students do not always have a choice. Social structures such as previous experience, performance, skills, popularity, ethnicity, teacher preference, socio-economic status, and existing friendships can systematically predispose students to opportunities for participation [13], [10]. This can have social implications, particularly in an area like civic participation. Civic participation in high school means doing things such as volunteering for a charitable cause, speaking out on public and community issues, and representing the student body [1]. Researchers suggest that civically active high school youth are more likely to be civically active adults [8]. Therefore, ensuring that the next generation participates in our society with efficacy is important, and requires our society to move beyond systematic structural predispositions to enable opportunities for diverse youth.

Previous research has found a weak association between high school students' friends and their civic attitudes [9], [14] yet this work has ignored the socio-technical context in which adolescents make friends. Within schools, social groups (recognizable via labels such as "jocks" or "populars") embed students in a social status hierarchy ([2],[3],[5],[6],[13]) that may structure extracurricular opportunities. Technologically (and socially), adolescents use social technologies (such as social network sites, instant messaging, and the mobile phone) for inclusion and acceptance [4], and group definition and boundary setting [11]; behaviors which are relevant to the understanding of the opportunities afforded by social groups. However, little is known about how the structure of friendships (e.g., the status of social groups, common activities, and technologically mediated interactions) predispose high school students to participation in the student government and other service activities. For example, are those more central in high school social life more likely to use technologies in certain ways? Do students more connected to others have more student government leadership opportunities?

Drawing from social structural theory, as well as research on high school culture, adolescent reference groups, and adolescents' use of social technologies, this mixed methods study examines: a) whether friendship structures affect (or are associated with) high school students' extracurricular and civic participation; b) how social technologies are used in friendship and extracurricular contexts; and c) whether social technologies affect the interrelationship between friendship structures and extracurricular participation. The overarching research question is: **To what extent do social technologies reproduce the interrelationships between friendship structures and extracurricular participation?**

This article describes the work-to-date, impressions from the field, expected contributions, and future phases of this study.

2. WORK TO DATE

The study is set in two high schools in the suburbs nearby Seattle, WA: The high schools have comparable demographics and the same technology use policies, but one has a higher SES.

Instrument feasibility--pilot study one (08/2008): A pilot study was conducted with 4 adolescents (14 to 15 years old) to test the viability of the measurements for social groups, theoretical constructs, and friendship structure. The pilot study showed that the measurements were viable. While no pattern of technology use was established with only 4 respondents, *homophily*, or the

likelihood to bond or associate with others like oneself [9], was evident. ¾ of participants' top 3 friends were of the same gender; and ¾ of participants' friends were in the same social group.

Teacher interviews (08/27 – 09/18, 2009)**:** Interviews were conducted with 10 teachers from both schools to learn about the school's course structure and develop a clustering sampling plan. Teachers also helped to localize the list of social groups [2] to be used in the student questionnaire.

Pilot study two (09/17 – 23, 2009): The revised questionnaire from pilot study one was refined with data from 20 students from both schools.

Student questionnaire (10/01 – present): Cluster sampling was used in both high schools (grades 10 through 12). 7 to 12 English classes (approximately 400 to 500 students) per school were sampled from grades 11 and 12. Pilot study two showed that some 10th graders could not answer questions about social groups and friendships in school at the start of the school year; thus 10th graders were not included in the initial sampling. To date, an average of 130 students per school have taken the online questionnaire. A total of 300 students are expected to take the questionnaire. The questionnaire asks about family background, technology ownership and use, social group and activity participation, and use of social technologies with different people (close friends, students from the same social group, and people in their civic group). The questionnaire provides the basis for analyzing structural characteristics of students' social relationships and use of social technologies. In order to answer the research question meaningfully, reporting of the questionnaire data is withheld until its collection is completed in January of 2010.

Informal observations (08/27 – present): 37 trips to both schools, each lasting an average of 2 hours have taken place. During the time I spent in the schools, unintended interactions were initiated by teachers and students. As described below, these interactions generated naturalistic observations which appear to validate the study's expected contributions.

3. IMPRESSIONS FROM THE FIELD
Here I describe impressions and preliminary analysis from one high school. Teachers and students here claim that the school does not have clicks or is much more accepting of difference. While this appears to be the case when compared to the other high school, the status of social groups is still evident. For example, during their homecoming assembly, the homecoming queen and king were a tall cheerleader and handsome football player. They were glorified in the homecoming assembly and at the homecoming football game. Coincidentally, cheerleading and football were the two most mentioned extracurricular activities by questionnaire participants (n=147) to describe the "popular" and "jocks" social group. These two social groups were nominated the most frequently (53 and 17) as the social group to be at the center of school social life. Teachers also believe that officers of the Associated Student Body (i.e., the student government) are at the center of school events. This also coincides with the next most representative activities for the "popular" and "jock" groups mentioned in the questionnaire: ASB and spirit day. This suggests that popularity, an indicator of social status, is related to being a student representative in the ASB. If being a student representative is the quintessential form of high school

civic/political participation, and civic participation in high school determines participation in adulthood, are the non-popular kids doomed to not be civically/politically involved adults? While not suggesting a positive answer, the data raises the need to devise civic opportunities for diverse youth.

4. WORK IN PROGRESS/FUTURE PHASES
Data cleaning is taking place in order to analyze the patterns of personal and technologically mediated interactions with best friends, and with people in one's social and extracurricular groups. Once the collection of student questionnaire data is complete, questionnaire data will be analyzed to address situational hypotheses pertaining the a) the interrelationships between the status of school-based social groups and students' choice of extracurricular activities; (b) the overlap between friendships and extracurricular participation; and c) how social technologies affect the patterns observed in (a) and (b).

Future study phases (01 – 05, 2010): Interviews and observations will help to interpret findings from the questionnaire. 12-20 students from 4-5 activity groups, and some not active in any groups, will participate in interviews. Critical sampling will be used to select students who most meaningfully illustrate theoretical concepts. Students will demonstrate how they use different technologies to interact with different groups of people. Students' behavior inside and outside their social groups, during free time, activities time, and school events will be observed.

5. EXPECTED CONTRIBUTIONS
This study will report the theoretically based situations in which social technologies are more likely to make a difference on students' opportunities for extracurricular and civic participation. For example, what social technologies are more likely to make a difference on the participation of students of medium to low social status groups and with high interaction with school groups? What are the theoretically based conditions in which heavy use of social technologies is more likely to have positive effects on exposure to social others like or unlike oneself? The study intends to take these behavioral findings one step further, and generate design implications for pro-diversity and pro-inclusion technology that motivates students to interact across group boundaries. This is of particular interest in high school settings because general purpose email and social network utilities are blocked. If, however, social technologies have a pro-inclusion and pro-diversity potential, schools may have to reconsider their technology policies.

6. ACKNOWLEDGMENTS

7. REFERENCES
[1]   Andolina, M. W., Keeter, S., Zukin, C., & Jenkins, K. 2003. *A guide to the index of civic and political engagement.* The Center for Information & Research on Civic Learning &

Engagement. Retrieved December 10, 2006, from http://www.civicyouth.org/PopUps/IndexGuide.pdf

[2] Brown, B. B., & Lohr, M. J. 1987. Peer-group affiliation and adolescence self-esteem: An integration of ego-identity and symbolic-interaction theories [Electronic Version]. *J Pers Soc Psychol*, *52*, 47-55. Retrieved September 20, 2007.

[3] Brown, B. B., & Steinberg, L. 1990. Skirting the "brain-nerd" connection. Academic achievement and social acceptance [Electronic Version]. *The Education Digest*, *55*, 57-60. Retrieved September 20, 2007, from http://proquest.umi.com/

[4] Boyd, D. 2008. Why Youth (heart) Social Network Sites: The Role of Networked Publics in Teenage Social Life." *Youth, Identity, and Digital Media.* Edited by David Buckingham. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. (pp. 119–142). Cambridge, MA: The MIT Press. doi: 10.1162/dmal.9780262524834.119

[5] Coleman, J. S. 1961/1981. *The Adolescent Society.* Westport, Connecticut: Greenwood Press, Publishers.

[6] Garner, R., Bootcheck, J., Lorr, M., & Rauch, K. 2006. The adolescent society revisited: Cultures, crowds, climates, and status structures in seven secondary schools [Electronic Version]. *J Youth Adolescence*, 35, 1023-1035. Retrieved May 14, 2006 from http://www.springerlink.com/

[7] Haythornthwaite, C., & Wellman, B. 1998. Work, Friendship, and Media Use for Information Exchange in a Networked Organization [Electronic Version]. *J Am Soc Inf Sci 49*, 1101-1114. Retrieved January 2, 2007, from DOI: 10.1002/(SICI)1097-4571(1998)49:12<1101::AID-ASI6>3.0.CO;2-Z

[8] Jennings, M. K., & Niemi, R. B. 1974. *The Political Character of Adolescence*. Princeton: Princeton University Press

[9] Kandel, D. B. 1978. Homophily, selection, and socialization in adolescent friendships [Electronic Version]. *Am J Sociology*, 84, 427-436. Retrieved Feb. 5, 2007 from http://www.jstor.org.

[10] Loder, T. L., & Hirsch, B. J. 2003. Inner-city youth development organizations: The salience of peer ties among early adolescent girls. *Appl Dev Sci, 7*(1), 2-12.

[11] Ling, R., & Yttri, B. 2002. Hyper-coordination via mobile phones in Norway. In J. E. Katz & M. Aakhus (Eds.), *Perpetual Contact* (pp. 139-169). Cambridge, UK: Cambridge University Press.

[12] London School of Economics, Centre for Civil Society (2004). *What is a civil society?* Retrieved December 15, 2006, from http://www.lse.ac.uk/collections/CCS/what_is_civil_society.htm

[13] McNeal, R. 1998. High school extracurricular activities: Closed structures and stratifying patterns of participation. *J Educ Res, 91*(3), 183-191.

[14] Sebert, S. K., Jennings, M. K., & Niemi, R. G. (1974). The political texture of peer groups. In M. K. Jennings & R. G. Niemi (Eds.), *The Political Character of Adolescence* (pp. 229-248). Princeton, New Jersey: Princeton University Press.