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Exploring the congruence of ethnic minority millennial students' transition to college, social identity and community, and online social network services

Rex Heer
Iowa State University

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Exploring the congruence of ethnic minority millennial students’ transition to college, social identity and community, and online social network services

by

Rex Heer

A thesis submitted to the graduate faculty in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Education (Curriculum and Instructional Technology)

Program of Study Committee:
Constance P. Hargrave, Major Professor
James McShay
Lori Patton

Iowa State University
Ames, Iowa
2008

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ABSTRACT

Students who are transitioning from high school to college are faced with separating from family, friends, and a familiar environment—and adjusting to new physical, social, and academic environments, and increased freedom as well as responsibilities. As a result of pre-college experiences, some individuals have been preconditioned for the social and academic aspects of the transition to college; while others (e.g., first-generation college students, socio-economically disadvantaged, ethnic minorities, etc.) are more likely to be less prepared, face more unknowns, and confront wider social and academic transitional gaps.

This thesis includes a literature review that covers (a) theory related to the processes involved in the transition to college for millennial generation ethnic minority students, (b) institutional practices to enhance individuals’ abilities to become successful college students, and (c) an overview of the attributes of online social network services (OSNSs) that offer opportunities to enhance students’ ability to successfully negotiate the transition to college. Additionally, a qualitative case study examines how a group of first-year ethnic minority college students at a large Midwestern predominantly White institution used an OSNS to deal with the social aspects of the transition to college and differences in the academic demands of high school and college.
CHAPTER 1: GENERAL INTRODUCTION

The inspiration for this thesis grew from recognition of the congruence of theory, practice, and opportunity. Specifically, this thesis acknowledges the compatibility of:

1. practices of colleges and universities that are aimed at encouraging students to enroll in college, enhancing their transition from high school to college, and ensuring their success in college,
2. social learning theory and the concepts of identity and community, and
3. millennial generation characteristics and the social activities that have been enabled through the widespread adoption of online social networking services.

The current generation of teens and young adults are socially connected in ways that were unimaginable just a few years ago. Over the past few years, at colleges and universities throughout the United States, growth in student participation in online social network services (OSNSs), such as Friendster, MySpace, Facebook, has been phenomenal (Lenhart, Madden, Macgill, & Smith, 2007; Owen, Grant, Sayers, & Facer, 2006; Silverman, 2007; Stutzman, 2006). Responses of institutional representatives to statistics regarding student use of OSNSs have ranged from alarm and dismay (Bugeja, 2005, 2006a, 2006b; Williams, 2006) to curiosity and inspiration (Stutzman, 2006; Silverman, 2007).

For the foreseeable future, students are expected to continue to embrace ever-newer technologies that facilitate and foster social interaction. Institutions of higher education must be able to address the challenges and potential negative consequences associated with student use of OSNSs (Mitrano, 2006a, 2006b; National School Boards Association, 2007). At the same time, as colleges and universities try to adapt to changing student behaviors and
characteristics that are associated with changing technologies, it is only natural that
institutions seek opportunities to leverage the ubiquity of OSNSs and their aspects that
students find so engaging.

**Research Problem**

Despite the widespread efforts to increase ethnic minority students’ participation in
and completion of college, there continues to be a significant difference in graduation rates
between ethnic minority and White students. The extent to which OSNSs may help students
to feel that the college environment is supportive *academically* is largely unexplored. In
recognition of the ubiquity and engaging nature of online social networks, student affairs
professionals have begun to explore the potential of OSNSs to augment existing efforts to
enhance the transition to college (Silverman, 2007). However, despite isolated attempts
(Lemeul, 2006), there is scant evidence regarding the potential use of OSNSs by institutions
of higher education to enhance minority students’ experience of the transition to college.

**Thesis Organization**

This thesis is structured in the journal paper format suggested by the graduate
program in the Department of Curriculum and Instruction at Iowa State University for theses
submitted by students in partial fulfillment of the requirements for the Master of Science in
Education degree. This thesis includes two papers—each of which is to be submitted
independently to scholarly journals associated with the disciplines of student affairs and
instructional technology. A literature review provides the overall context of the thesis in
*Chapter 2: Ethnic Minority Millennials’ Transition to College, and Online Social Network*
*Services: a Review of the Literature.* I explore opportunities afforded by the ubiquity and engaging nature of technologies that facilitate social networking. I delineate a broad spectrum of theory and review the literature that is relevant to the processes associated with ethnic minority, millennial generation students’ transition to college, and institutional practices to enhance their transition. And I examine the ways in which the nature of OSNSs is congruent with theory and practice.

The second paper, *Chapter 3: Exploring the Potential of Online Social Network Services to Facilitate Ethnic Minority Students’ Transition to College: A Case Study,* is a qualitative collective case study that examines how a group of first-year ethnic minority college students at a large, Midwestern, predominantly White institution used an online social networking service to address (a) the social aspects of the transition to college and the processes of separation, involvement, and validation; and (b) the differences between high school and college in the amount and nature of effort required to meet academic demands. General conclusions are discussed in Chapter 4.

**References**


Bugeja, M. J. (2006b, October). Interpersonal divide: The search for community in a technological age. Presentation to Curriculum and Instructional Technology program faculty and graduate student seminar at Iowa State University, Ames, IA.


CHAPTER 2: ETHNIC MINORITY MILLENNIALS’ TRANSITION TO COLLEGE, AND ONLINE SOCIAL NETWORK SERVICES: A REVIEW OF THE LITERATURE

A paper to be submitted to *Journal of College Student Development*

Rex Heer and Constance P. Hargrave

**Abstract**

Students who are transitioning from high school to college are faced with separating from family, friends, and a familiar environment—and adjusting to new physical, social, and academic environments, and increased freedom as well as responsibilities. As a result of pre-college experiences, some individuals have been preconditioned for the social and academic aspects of the transition to college; while others (e.g., first-generation college students, socio-economically disadvantaged, ethnic minorities, etc.) are more likely to be less prepared, face more unknowns, and confront wider social and academic transitional gaps. This paper offers a literature review that covers (a) theory related to the processes involved in the transition to college for millennial generation ethnic minority students, (b) institutional practices to enhance individuals’ abilities to become successful college students, and (c) an overview of the attributes of online social network services (OSNSs) that offer opportunities to enhance students’ ability to successfully negotiate the transition to college.

**Introduction**

The purpose of this article is to review the research literature about students’ transition from high school to college and online social network services. I provide an
overview of theory related to the practices of colleges and universities that are aimed at enhancing the transition from high school to college. More specifically, I discuss programs designed to enhance the transition experience of ethnic minority, millennial generation students. See Appendix A for a list of key terms and related concepts.

Additionally I examine the phenomenon of recent widespread adoption of online social networking services by teens and young adults, who are socially connected in ways that were unimaginable just a few years ago. There is an intriguing congruence of (a) the types of interactions and social groups that coalesce within online social networking environments, and (b) efforts of colleges and universities to help students adapt to the social and academic life of the institution. This article constructs a foundation for research related to the exploration of opportunities for colleges and universities to leverage online social networking services (OSNSs) to augment current efforts to enhance the transition to college.

This chapter consists of six sections:

1. **Millennials Coming to College**—provides a critical overview of popular generalizations of the current generation of high school and college-age teens, often referred to as “millennials”. This section also offers insight into the ways in which the experience of millennials who have an ethnic minority heritage tends to differ from that of the White majority in the United States.

2. **Social Identity and Community**—covers an array of learning theory—key to analyzing the processes involved in developing a sense of belonging and becoming a successful student as a member of a community of learners in higher education.
3. *Transition to College*—bridges theory and practice and covers a broad spectrum of research related to the social processes involved in becoming a college student. This section includes an overview of a variety of current efforts to enhance the transition from high school to college.

4. *Programs Designed to Facilitate Successful Transition*—looks at existing practices of colleges and universities intended to enhance student transition and persistence.

5. *Online Social Networks*—provides a conceptualization of social networks and attributes of OSNSs.

6. *Conclusion: Online Social Network Services and the Transition to College*—the final section, examines the social processes that may be fostered by the use of OSNSs to enhance students’ experiences of the transition to college. Key aspects of the preceding sections are overlaid to identify the factors, issues, and implications of congruence of theory and practice.

The demographic of interest in this literature review is represented by the *intersection* of two social categories in the United States (Figure 1). The first of the two categories is sometimes referred to as “millennials” or the “millennial generation” (Howe & Strauss, 2000, DeBard, 2004). Characteristics generally attributed to millennials have been shaped by the overall social and technological contexts in which they have grown up. The second social group of interest, “ethnic minority” is characterized by a cultural, social, and economic heritage of marginalization in the United States.
Neither of these groups is a subset of the other (Figure 1-①). These are certainly not the only categories of identity among pre-college teens; indeed, there are virtually limitless pre-college groups, communities, and sources of affiliation and identity. However, the demographic focus of this literature review is specifically on millennial generation members of ethnic minority groups, such as African Americans and Latino/a Americans, that have long been marginalized as a result of hegemonic discrimination based on ethnicity or race.

Seminal works of several theorists provide the framework wherein college transition processes and factors are interpreted (Figure 1-②). The concepts of social identity, community, and social categorization (LeVine & Campbell, 1972; Lewin, 1939; Tajfel, 1978, 1981; Wenger, 1998), as well as theories of cognitive constructivism (Papert, 1980; Piaget & Inhelder, 1966; Pulaski, 1971), social constructivism (Vygotsky, 1978), situativity (Barab &

Students coming from high school to college face two major interdependent transitions (Figure 1-③): academic; and social. And three critical processes affect students’ personal experience of transition: separation, involvement, and validation. An individual’s ability to successfully negotiate the transition to college is differentially influenced by his or her identities as members of both millennial and ethnic minority groups (Broido, 2004; DeMarrais, 1995; Kinser & Thomas, 2004; Lee, 2004; Osei-Kofi, Richards, & Smith, 2004; Phinney, 1990; Rendón, García, & Person, 2004; Saylor & Aries, 1999; Tinto, 1993).

The theoretical framework (Figure 1-②) also provides the foundation for the development and analysis of institutional efforts to enhance students’ experience of the transition to college (Figure 1-④). These efforts currently include programs such as outreach, bridge, orientation, first-year seminars, and learning communities (Benjamin, Earnest, Gruenewald, & Arthur, 2007; Browne & Minnick, 2005; Clark, 2005; Council for Opportunity in Education, n.d.; Ellertson & Thoennes, 2007; Kezar, 2000; National Survey of Student Engagement, 2005; Porter & Swing, 2006; Richardson & de los Santos, 1988; U. S. Department of Education, n.d.). These programs have been developed based on an extensive body of scholarship regarding, among other things, student persistence, feelings of belonging, and factors influencing the process of adapting to the social and academic life of the institution (Astin, 1982, 1999; Attinasi, 1989; Chickering & Gamson 1987; Jalomo &

I provide an overview of aspects of current OSNSs (Figure 1- ) (Boase, Horrigan, Wellman, & Rainie, 2006; Educause Learning Initiative [ELI], 2007a, 2007b; Granovetter, 1973, 1983; Lenhart, Madden, & Hitlin, 2005; Lenhart & Madden, 2006; Lenhart, Madden, & Macgill, 2007; Mitrano, 2006a; Owen, Grant, Sayers, & Facer, 2006; Silverman, 2007). Lastly, I delineate ways in which theory and practice illuminate the opportunities and drawbacks of potential efforts to leverage features of OSNSs to enhance the social and academic transitions to college.

**Millennials Coming to College**

**Characteristics of a generation**

In *Millennials Rising* (2000), Howe and Strauss provide an in-depth portrait of the generation of Americans born since 1982 that includes current (2008) high school and college-age youth and young adults. Many of the characteristics that typify millennial generation college students have been shaped in relation to the characteristics and influences of their parents, the Boomer generation—born between 1945 and 1965 (Howe & Strauss, 2000). Howe & Strauss point out that from early childhood on, millennials have had more opportunities to participate in organized, directed activities than previous generations. Boomer parents have been referred to by their roles as soccer moms and dads; and more recently as helicopter parents, alluding to those that tend to micromanage aspects of their children’s lives—especially education. Parental hovering (as in helicopter) has fostered a
dynamic that has resulted in expression of many of the characteristics of this generation that are the most salient in the context of higher education and the transition to college.

Howe and Strauss summarize seven distinguishing traits of the millennial persona:

1. **Special:** Howe and Strauss (2000) contend that compared to recent previous generations, millennials, as a generation, tend to believe that they are special as a result of generous expressions of praise from boomer generation parents and authority figures. They have also been made to feel important by marketing strategies that target them—including promotional programs of colleges and universities. Parental involvement in the activities of millennials as well as their expectations of and praise for achievement reinforces millennials’ feelings of importance and being special.

2. **Sheltered:** Parental involvement has led millennials to a very sheltered way of engaging with the world (Howe and Strauss, 2000). Protective parents closely monitor their millennial children’s activities in the face of widespread perceived perils of modern life. These parents also manage to structure activities that fill up what was formerly free time for previous generations. Millennials have come to expect and rely on parents and other authority figures to organize their schedules and activities. They have grown accustomed to a structured environment and directed activities. With technologies, such as cell phones and instant messaging, they are generally more connected with parents than previous generations—even after they have gone away to college.
3. **Confident:** Regular positive feedback from authority figures builds trust that compliance with expectations will lead to acknowledgement, reward, and recognition (Howe and Strauss, 2000). Howe and Strauss state that millennials are optimistic and confident regarding their inevitable success. Experience has reinforced confidence in their abilities to match effort to expectations; and they will be motivated to do so as long as they are duly rewarded. Somewhat ironically however, others (Kinser & Thomas, 2004; Lee, 2004; Rendón, García, & Person, 2004) suggest that a highly supportive pre-college environments in which students have been made to feel special and experienced previous academic success may sometimes lead to unrealistic expectations of the ease of success.

4. **Team-oriented:** Millennials, according to Howe and Strauss (2000), are also team-oriented as a result of a myriad of opportunities for group/team activities, educational emphasis on group learning, and a wide variety of ways of being connected socially with peers. However, they are likely to be more comfortable with group projects if they are clearly structured—in which case there is less pressure on individuals and an expectation that cooperation will lead to favorable outcomes.

According to Howe and Strauss, another aspect of connectedness with others and with the community is that millennials readily volunteer to participate in activities such as service learning projects and organized efforts related to social and environmental causes. Sandfort and Haworth (2006) interviewed 75 millennial generation students regarding attitudes toward religion, family, education, work,
community service, politics, and their future—and found that most of them expressed a sense of personal fulfillment resulting from community service. Students in Sandfort and Haworth’s study also acknowledged their belief that participation in community service strengthened their position relative to college entrance applications. But some students said that while they didn’t disagree with the notion of community service, they disliked being required to volunteer as part of a school project. Other educators question the extent to which volunteerism is continued once a student comes to college (C. P. Hargrave, personal communication, September 6, 2007).

5. Achieving: Millennials are seen as achievers (Howe and Strauss, 2000)—yet another effect of their confidence that adhering to performance expectations will lead to recognition and success. They tend to be more comfortable with objective assessment than previous generations; but only when instructors’ expectations, objectives, and performance measurements are clearly defined so that students know exactly what they need to do to be rewarded with high grades.

6. Pressured: Millennials also feel pressured to excel by parents that have provided them with structured activities and expectations of performance (Howe and Strauss, 2000). Motivated Boomer generation parents that have imposed high expectations and micromanaged their children’s activities can then take pride in their children’s success.

7. Conventional: Compared to recent previous generations, millennials are more conventional (Howe and Strauss, 2000). The system of performance and reward
has fostered a perspective of general respect for convention, compliance, and conformity. This predilection for conformity and a clearly defined structure would lead one to believe that millennials believe that following the rules is the unquestionable pathway to success. However, strict adherence to regulations and community standards of behavior does not necessarily follow (DeBard, 2004). DeBard notes that plagiarism is the most serious of resultant academic misbehaviors. Ready access to information along with millennials’ technological perspicacity enable pathways to desired outcomes that circumvent ethical behavior (DeBard, 2004). Possibly as a result of feelings of pressure to perform, millennials may develop an attitude that end results are the real measures of performance—and taking shortcuts and bypassing or ignoring some rules and regulations to achieve those results are justified.

Howe and Strauss (2000) also contend that regarding race and ethnicity, millennials’ attitudes are marked by a shift from those of prior generations. They maintain that to millennials, the civil rights movement and a society conflicted by issues of race is history. Howe and Strauss believe that as a result of increased exposure of a wider variety of racial and ethnic heritages, as a whole, American millennials are more likely to disregard race as a prejudicial factor in their perceptions and relationships with others. This belief is problematic in that it glosses over differences among the experiences of subgroups of the population of millennials. The general traits described by Howe and Strauss, seem to be less befitting of ethnic minorities and the economically disadvantaged than they are for the middle to upper class White elite (DeBard, 2004).
Howe and Strauss acknowledge that the millennial attitude of optimism is not as prevalent among Black teens as it is among White teens—especially when it comes to perceptions of opportunities for success. Howe and Strauss, nevertheless, argue that most of the socio-economic disparity between the majority White and minority Black millennials is a result of a much lower proportion of two-parent families among Blacks (around 40%) than among Whites (approximately 75%). Of all of Howe and Strauss’s (2000) generalizations of the millennial generation, the ones regarding race and ethnicity may be the most misleading. They emphasize interracial similarities in characteristics and attitudes while they minimize the relevance of issues related to race and ethnicity that carry with them longstanding histories of divisiveness and socio-economic stratification. Generalizations of characteristics and attitudes of a generation are useful to a degree—insofar as they are acknowledged as a general context within which the lived realities of individuals and subpopulations may vary significantly.

The following section develops a conceptualization of race and ethnicity in the U.S. It also provides an overview of issues surrounding marginalized ethnic minority millennials. Additionally, those issues are discussed in terms of major changes in the social and academic contexts that confront individuals undergoing the transition to college.

**Race and ethnicity**

The term “race” carries with it connotations of a prior longstanding entrenched history rooted in a perspective of biological determinism and categorization based on physical characteristics (Rendón, García, & Person, 2004). Physical characteristics can and do prejudicially influence the ways in which many individuals are perceived and treated by
others, and are relevant in that regard. Alcoff (2006) frames race [as well as gender] as a “visible” identity. The degree to which race is a closely held part of who one is may vary considerably from one person to the next. However, one’s race, as a visible identity perceived by others, affects our relations in the world. Thus, Alcoff argues, that race, therefore, is necessarily fundamental to the self.

Rendón, García, & Person (2004) use the term [persons] of color—though they admit that some scholars take issue with this term because it implies [colorless] White is the norm, and non-White is the other. The term ethnicity is more commonly associated with the broader milieu that includes cultural background, language, and nationality-related aspects of an individual’s identity (Lee, 2004). Yet, the term ethnic minority also comes with implications similar to those associated with the term persons of color. Some people, including scholars such as Saylor and Aries (1999), use the term ethnic to refer to anyone non-White. The attribution of the status of minority appears to imply that relative numbers are relevant. The issues of concern do not arise simply because one group has fewer members than another group. The significant relationship is one of predominance and subordination in terms of social status, power and opportunity for self-determination (Rendón, García, & Person, 2004).

While there is no general consensus on the definition of racial or ethnic identity, the meaning of either construct has two aspects. One is the meaning individuals attach and how they relate to their own ethnic group(s) as a subgroup of the larger society (Phinney, 1990). The second aspect is the meaning others make of one’s perceived identity. Alcoff (2006) points out that race, as one of the visible aspects of one’s identity contributes to one’s public
identity. Public identity—as differentiated from one’s lived subjectivity (i.e., internal concept of self)—is “our socially perceived self within the systems of perception and classification and the networks of communities in which we live” (Alcoff, 2006, p. 92). Although public identity and lived subjectivity may be conceptualized differently and may at times even seem divergent, they are interdependent insofar as one’s public identity inevitably affects one’s lived subjectivity (Alcoff, 2006).

In general, non-predominant ethnic groups in the U.S. have longstanding histories of the negative effects of social and economic stratification, marginalization, and underrepresentation, as well as being subjected to self-perpetuating inequitable systems of power, stereotyping, prejudicial treatment, discrimination, and oppression by the dominant group (Osei-Kof, Richards, & Smith, 2004; Rendón, García, & Person, 2004). Phinney (1990) points out that in situations where the predominant culture regards the attributes and characteristics of an ethnic group in low esteem, members of that group are faced with a prospective negative social identity and lower self-regard. Issues of potentially conflicting social identities and implications for individuals are discussed further in a subsequent section of this article. However feelings of discrimination and isolation—as experienced by large numbers of African American students at predominantly White institutions (PWIs)—have been shown to “have a negative impact on indicators of academic success, such as persistence, progression, grades, and graduation” (Lee, 2004).

Although Howe & Strauss (2000) maintain that prevailing attitudes toward race and ethnicity have evolved somewhat from those of previous generations, first-year millennial college students will nonetheless be entering an institution that reflects a social system within
which beliefs and world-views have been shaped in a context of unequal power relations (Osei-Kofi, Richards, & Smith, 2004). Individual access to and success in college may be inhibited by pre-college experiences that disproportionately affect Blacks and Latinos, such as attending resource-poor schools, participation in a less comprehensive and demanding high-school curriculum, lowered personal expectations for success, and growing up in a culture of poverty (Rendón, García, & Person, 2004). Other risk factors related to student persistence and success that are more likely to affect ethnic minorities than the ethnic majority, include a single-parent background, changing schools two or more times, having to repeat one or more grade levels, a pattern of dropout behavior in the family, and little or no family history of post-secondary education (Jalomo & Rendón, 2004; Rendón, García, & Person, 2004). The discrepancies in pre-college experiences between ethnic minorities and the White majority in PWIs are reflected in (a) disparity in ability to negotiate the system by recognizing and matching behaviors with institutional expectations, as well as in (b) differences in knowledge, attitudes, perspectives, norms, and realities (Lee, 2004; Rendón, García, & Person, 2004; Tinto, 1993).

The supposedly more optimistic inclinations of millennials regarding diversity and ethnicity, as articulated by Howe & Strauss (2000) are over-generalized—and not equally applicable across all subgroups of the population. It also is important to note also that subgroups are not homogenous. For example, the group generally referred to as African Americans has many micro-populations with distinct customs, behaviors, heritages, and languages (Lee, 2004). Generally speaking, however, as a group, ethnic minority (i.e. African Americans, Hispanics, Native American Indians, etc.) attitudes, expectations, aspirations and
optimism are not the same as those of the White majority (Kinser & Thomas, 2004). Ethnic minority students tend to experience culture shock, discrimination, and prejudice at a higher rate than their non-ethnic minority counterparts (Kinser & Thomas, 2004; Lee, 2004; Rendón, García, & Person, 2004; Saylor & Aries, 1999).

Historically Black colleges and universities (HBCUs) and PWIs differ in concept and approach to addressing challenges of transition that tend to affect ethnic minorities to a greater degree (Lee, 2004). Lee argues that the culture at HBCUs is more student-centered, engaging the student more holistically than at most PWIs. Holisticity as it relates to individuals’ experiences can be thought of as recognition and treatment of individuals as unique and complex; each individual being a dynamic whole comprising multiple intimately interconnected identities. For example, all individuals have distinct combinations of personally meaningful affiliations with various groups, such as family, and those associated with religion, academics, athletics, culture, community service, politics, and so on.

Validation of an individual’s identity as a college student (Rendón, 1994) as part of a unique nexus of social identities, is a key factor influencing feelings of acceptance and belonging (Lave & Wenger, 1991; Wenger, 1998).

Saylor and Aries (1999) studied ethnic identity among a group of 114 ethnic minority students at a predominantly White liberal arts college. Upon arrival at college, the strength of study participants’ ethnic identity was strongly associated with family participation in cultural traditions and involvement in ethnic organizations and with ethnic friends in high school. By the end of the first year in college, however, participation in ethnic activities and
association with other ethnic people on campus superseded level of family participation in cultural traditions as a predictor of strength of ethnic identity.

Saylor and Aries (1999) also found that strength of ethnic identity did not change significantly among those entering college with an already strong ethnic identity, but strength of ethnic identity did increase significantly among those with initial weak ethnic identities. Those with initially strong ethnic identities sustained them via involvement with other ethnic people and ethnic-oriented groups and activities. They were also more likely to have a higher proportion of same-ethnicity friends and be involved in more ethnic and cultural activities than those with initially weaker ethnic identities. More significantly, Saylor and Aries found that students with strong ethnic identities also tended to join more non-ethnic groups than those with weaker ethnic identities. Saylor and Aries suggest that, for minority students who experience the transition to college as culture shock, involvement in ethnic organizations fosters adjustment to college life without negating or devaluing ethnic identities.

Summary

By identifying the ways in which the millennial generation tends to differ from previous generations, parents, educators, and employers can gain insight and understanding of individual millennials’ characteristics, attitudes, and behaviors. Howe and Strauss contend that, compared to recent previous generations, millennials, tend to have stronger beliefs that they are special. Regular positive feedback from parents and authority figures has led millennials to be optimistic and confident. Intergenerational dynamics have also led millennials to be generally more conventional and engage with the world from a very sheltered perspective. Howe and Strauss maintain that millennials are more socially
connected and generally regarded as *team-oriented*. Millennials are seen as a generation of *achievers*, but feel *pressured* to excel by their parents. In spite of Howe and Strauss’s optimistic portrayal of millennials’ attitudes regarding race and ethnicity, the lived experiences and realities of individuals within traditionally marginalized ethnic minority populations often contrast significantly with those of “typical” White majority individuals.

Both millennial generation and marginalized ethnic minority categories are macro-level groupings—each comprising a variety of micro-populations with distinct characteristics. Thus, on the level of analysis of the individual ethnic minority millennial student, the significance of general characteristics of either category is relative. However, both categories are highly significant as social contexts within which the individuals of interest in this literature review reside. The following section identifies a spectrum of theory that provides a framework for an examination of the relationship of the individual with his or her social groups. Articulation of the theories in this review of literature is intended to elucidate the subsequently discussed social processes associated with the transition to college.

**Social Identity and Community**

**Introduction**

*Nice to meet you! I’m Kendra. You’re welcome to join us. A regular group of us get together here to play pickup volleyball Tuesdays and Thursdays around noon. And there’s always room for more. I haven’t made it over here for a couple of weeks because I have been way too busy working on my thesis. Are you a student here too?*
This brief self-introduction may or may not be meaningful to the listener. The speaker has alluded to a couple of groups to which she belongs and some activities in which she is involved. In a way, it provides a limited, somewhat superficial glimpse of who she is and what she does. It is like sharing three still frames from a movie to try to give an impression of the complete work. Still, there are a few clues to something deeper.

One can surmise, for instance, that Kendra is involved socially (“volleyball with friends”) and academically (“working on my thesis”) at the university, and that she has already achieved some degree of success as a student (theses are usually written by graduate students or undergraduate seniors). What one does not see is that, when she first came to college, she was unsure if she made the right choice. It was hard to adjust to feeling like she was on her own: the university seemed so big and impersonal. And she was struggling with chemistry.

**Background**

Kendra’s experience is not at all unusual. Transitioning to life as a college student at a large university is a transformational process—one that is not always easy. Learning chemistry was only a small part of learning to be a student and developing a sense of belonging within the university. The transformation she underwent can be seen as a process of constructing a social identity as a college student. The evolution of who one is (identity) in relation to the university (the social context) corresponds with: (a) the extent to which one becomes involved in the academic and social life of the university; and (b) the ongoing validation one receives that affirms her status as a successful student (member of the university community) (Jalomo & Rendón, 2004; Pascarella & Terenzini, 2005).
Development of a social identity

In his discussion of the effect of social factors on human behavior, Kurt Lewin (1939) delineated the dynamic relationship between the individual and the social groups to which he or she belongs. Lewin points out that a child would not be able to survive without the help of others; therefore, from birth onward every child is a member of a social group. He goes on to make the case that to understand the development of the child and adolescent, few things are more important than the study of how an individual comes to accept or reject the values and manner of living predominant in the social environment, and the dynamics that influence her or his social status and sense of security within the group. Lewin provides a compelling analogy and metaphorical perspective for the development of social identity:

“The social climate in which the child lives is for the child as important as the air it breathes. The group to which a child belongs is the ground on which he stands. His relation to this group and his status in it are the most important factors for his feeling of security or insecurity” (Lewin, 1939, p. 82).

The social context provides the environment within which the child learns about the world. It is also the domain of the beginnings of the development of a social identity. According to Piaget (Pulaski, 1971), individuals adapt to their surroundings by means of perceptual and conceptual assimilation (experiencing and making meaning of one’s environment) (Piaget & Inhelder, 1966) and accommodation (adjusting patterns of behavior to or coping with new or changing conditions in the environment). Children, thus, are the builders of their own intellectual structures (Piaget & Inhelder, 1966). The processes of assimilation and accommodation are not exclusive to cognitive development, however. In
Piaget’s formulation, in addition to structural or cognitive aspects, every action involves feeling or *emotional* (affective) aspects (Pulaski, 1971). Piaget posits that development of social identity occurs more robustly in an environment that provides the kinds of meaningful experiences that can become the foundation for constructive learning (Papert, 1980). Piaget’s perspectives are directly relevant to the transition to college—especially regarding the processes (to be discussed subsequently) of separation, involvement, and validation.

Papert (1980) points out that a culture with a paucity of meaningful, relevant experiences cannot provide children with adequate building materials for constructive learning. From this perspective, learning, along with the development of a social identity, is a matter of fashioning meaning of new experiences in ways that reconcile them with a worldview that has been built from making meaning of one’s previous experiences. Each new experience provides additional materials with which the individual can add to, reinforce, reinterpret, or reevaluate and reconstruct a more elaborate framework for understanding and interacting with the world around it. This framework is also the foundation that enables the individual to determine [both meanings intended] who she or he is relative to her or his social context.

**Social learning theory: Communities of practice**

Wenger (1998) brings these notions together into a single model of social learning. Wenger’s model suggests that learning is a constant process of *developing identities* associated with various *communities* through *engagement in the practice*[s] of the communities in ways that are *experienced as meaningful*. 
The notion of transformation is essential to Wenger’s social theory of learning. In his conceptualization, learning is revealed as much more than the mere acquisition of information and skills. “Because learning transforms who we are and what we can do, it is an experience of identity . . . a process of becoming” (Wenger, 1998, p. 215). Within the context of negotiating the transition to college, the transformation of concern is that of an individual becoming a college student. Here, use of the term, “negotiating the transition” implies both the dialectic connotation of negotiation as well as the process of navigation past obstacles or perceived barriers.

By way of example, consider Kendra’s experience in freshman chemistry. Although she may not have realized it at the time, learning chemistry is a social experience. To her, it seemed at first to be all about committing meaningless abstract facts and formulas to memory long enough to pass the next exam. However, little did she know, she was beginning to become immersed in a discipline with its own socially-developed language, practices, conventions, perspectives, and culture. She collaborated with classmates on group projects, talked with and received encouragement and advice from the instructor outside of class, and studied with friends in her learning community. Although she still may not be a big fan of chemistry, she did end up learning something—not the least of which was that she learned how to be a better learner: she became involved as a member of a community of learners; and she received the validation she needed to develop confidence that she could succeed as a student at the university.

The transformation of identity that occurs in the transition to college will vary from individual to individual as a personal trajectory of experience in which each individual has a
unique past from which they come to experience—and make meaning of—the present. And the meaning that is made during this critical transition will in turn affect whether the pathway toward success as a college student is regarded as more or less clearly negotiable. Whether one views Kendra’s experience as constructing (á la Piaget and Papert) or negotiating (á la Wenger), seen holistically, she experienced, learned, and transformed. In addition to the previously mentioned theories of learning, other theorists address issues of social identity and community more directly.

**Social categorization**

In his discussion of intergroup relations, Henri Tajfel’s (1978) articulation of social categorization and social identity sheds light on the view that learning is inherently social—manifested as cognitive processes in social contexts. He clarifies a conceptualization of the meaning of “group” in terms of relevance to the individual. Compatible with a constructivist perspective, Tajfel (1981) defines a group as “a cognitive entity that is meaningful to the individual at a particular point of time” (p. 254).

*Social categorization* is a process of attaching value to, organizing, and making sense of perceived relationships and similarities among social objects, events, and activities (Tajfel, 1978). Tajfel claims the process of social categorization is integral to the processes of socialization—enabling the individual to attach value to and distinguish social divisions. It is an inherently subjective system of drawing distinctions and acknowledging similarities among the different groups to which one belongs as well as between the group[s] to which one belongs (ingroups) and other groups to which one does not belong (outgroups). LeVine and Campbell (1972) discussed conflict in intergroup relations and the tendency of
individuals to subjectively attach differential values to ingroups and outgroups. Although LeVine and Campbell note considerable contradictions in theories regarding the cognitive and behavioral foundations of ethnocentrism, they suggest that ethnocentrism is associated with the propensity of individuals to attach generally positive values to ingroups as opposed to relatively negative values to outgroups. Regarding the transition to college, ethnocentrism, whether perceived or real, is an undeniable factor contributing to an overall imbalance between the affective experiences of ethnic minorities and the ethnic majority.

The notion of social identity, according to Tajfel’s (1981) deliberately limited definition, is a consequence of attaching values to the differences between ingroups and outgroups. Tajfel chooses to regard social identity as a part of one’s overall self-concept. An individual, in this sense, has many group-specific social identities—each of which contributes something to the concept of self. And the qualitative manner in which any particular social identity contributes to self-concept stems from the individual’s knowledge of membership, values, and emotional significance attached to a specific social group (Tajfel, 1978). This is not to imply that one’s self-concept can be thought of as the weighted sum of social identities. Rather, it is merely an acknowledgement that social categorization, group membership, and social identity contribute something to the way in which an individual sees her or his place in society and her or his self in relation to the world.

Social constructivism

Tajfel’s (1981) perspective regarding the concepts of social categorization and social identity is individual-centric. It recalls aspects of Piaget and cognitive constructivism insofar as his focus is on the cognitive processes by which individuals make sense of the world
around them. *Social constructivism*, however, acknowledges the interconnection of the individual and the social context more directly.

According to Vygotsky (1978), an individual will only be able to have truly meaningful transformative (learning) experiences if the experiences occur within the individual’s zone of proximal development. A foundation of social constructivism, one’s zone of proximal development refers to the region which lies beyond one’s current state of development, yet is nonetheless within the realm of one’s potential for development by means of learning in collaboration with or assisted by others. Lave and Wenger (1991) build on this concept and tie individual development more directly with the social context. Lave and Wenger (1991) refer to the *learning activities* that occur within this region as the *legitimate peripheral participation* of an individual, which leads to the constitution of a trajectory of membership with respect to the practice of a community. In other words, by engaging in the shared knowledge, perspectives, activities, etc. of a discipline (community) in ways that are meaningful, an individual can move from the periphery of a community toward mutual recognition (validation) as a legitimate member of the community.

**Situative theory: Learning as participation**

Situative theories, deriving from an anthropological perspective (Lave, 1985, 1991, 1997; Lave & Wenger, 1991), emphasize the notion that cognition and meaning *as well as* individual identities are reciprocally socially and culturally constructed. Barab and Duffy (1998) ascribe no clear boundary separating the development of knowledgeable skills (learning, thinking, knowing, and doing) and the development of identity as they emerge in tandem from participation in the practice of a community. They point out the parallel
perspective of learning as participation—that is knowledge situated in practice; and they contrast it with the perspective that regards knowledge as an acquirable commodity. Barab and Duffy (1998) suggest that all too often school activities are directed both by and toward the production of grades. They argue that educators need to place more emphasis on the ways identities are formed as individuals make meaning of interactions with the world.

**Contextual challenges**

Most current first-year college students have come directly from a secondary school system in which federal mandates have resulted in an emphasis on performance on standardized tests (see National Education Association, 2007). Admission to college is generally based to a substantial degree on commodified performance in the form of grade point averages and the results of high-stakes entrance exams. This runs counter to the epistemology of Dewey (1897), who criticized educational systems geared toward preparing students for a future living. He argued that education is a process of living—not one of preparation. Considering this point, some interesting pertinent questions arise:

1. Have current students’ high school experiences: (a) prepared them to be admitted to college; (b) prepared them for college-level courses; or (c) started them along the path toward becoming a viable member of a college-level community of learners?

2. Has the social context, vis-à-vis millennial generation attitudes, tended to shape world-views in which the acquisition metaphor of knowledge as a commodity is a more natural fit than learning as an experience of meaning and identity?
3. Can reflection on the process of becoming a college student, as a participatory social experience of learning and developing social identity, help individuals learn how to learn?

Although these questions may be relevant, this thesis does not presume to attempt to identify definitive answers to them. For now, they remain as a call for further research—and serve as a reminder that the processes associated with transition to college must be understood as a phase in a personal continuum of learning and development.

The dynamics of undergoing the transition to college in many ways are no different than those encountered as a result of adapting to any new social environment. However, for most first-year college students, it will be among the most significant changes in social context they will have encountered. And it can also be seen as a high-stakes transition—especially when going to college is valued as a closely-held aspiration—with profound implications relative to one’s social identity and overall self-concept.

Summary

As individuals grow and learn, new experiences enable and prompt them to add to, reinforce, reinterpret, or reevaluate and reconstruct a more elaborate framework for understanding and interacting with the world. Through this process, the individual is able to determine who she/he is relative to her/his social context(s). Cognitive and affective responses to one’s environment and the actions of family members or initial caregivers mark the beginnings of the development of a social identity. Social identity is a consequence of attaching values to the perceived differences between groups in which one has a sense of belonging (ingroups) and those in which one does not (outgroups) (Tajfel, 1978). Individuals
have many social identities—each associated with a different group or community and each of which contributes something to their overall concept of self. Ethnocentrism, associated with the propensity of individuals to attach generally positive values to ingroups and relatively negative values to outgroups (LeVine & Campbell, 1972), contributes to differences between the experiences of ethnic minority and the ethnic majority individuals negotiating the transition to college (Jalomo & Rendón, 2004; Pascarella & Terenzini, 2005).

Learning is transformational in the sense that it changes what one can do in an ongoing process of becoming who one is (Barab & Duffy, 1998; Wenger, 1998). Individuals, who are beginning college—learning how to be [or how not to be] a college student—are in the process of undergoing one such phase of transformation. The transformation of identity that occurs in the transition to college will vary from individual to individual. By making meaning of her or his experiences, each one transforms who he or she is and what she or he can do as he or she develops a social identity as a college student.

**The Transition to College**

**Introduction**

*The freshman year has long been known to be a critical time in the lives of students. It is a time of transition and adjustment to the social and academic demands of college, a time when the likelihood of dropout and the possibility of transformative learning is greatest* (Tinto & Goodsell, 1993, p. 1).

In this section, the social and cultural aspects of transformation in terms learning and developing social identities are key to understanding the processes that occur as individuals undergo the transitions to college. These notions are particularly relevant to developing a
framework for examining the ill-defined problems individuals encounter at the nexus of transition from high school to college, from dependence to independence and interdependence, and from adolescence to adulthood.

**Background**

There are two major interdependent high school-to-college transitions. The first is necessitated by differences in the academic demands between the student’s high school and their university. The second main transition is social—involving separation from the social network of family and friends, establishing a new network of friends, and developing a sense of belonging (Pascarella & Terenzini, 2005; Silverman, 2007; Tinto & Goodsell, 1993).

For many students, college can be a safe transitional environment between adolescence and adulthood in which they can explore new attitudes, beliefs, and behaviors (Pascarella & Terenzini, 2005). They may experience the benefits of newfound autonomy, excitement, new social networks, pride in academic accomplishments, and increased self-confidence and self-esteem. Although they experience freedom and opportunity, they also face new academic, personal, and social adjustments.

First-year college students face the challenges of being separated from what was familiar and thrust into a totally new culture. They have to interact with faculty, staff and other students who are unfamiliar and may have different values, beliefs, and behaviors (Hunter, 2006). And they may face pressure to unlearn certain familiar beliefs, values and behaviors and adopt new ones (Pascarella & Terenzini, 2005). For example, it can be a major adjustment for some students, who have been accustomed to an environment in which they
could depend on the daily attention of protective parents, to adjust to the reality that they alone are responsible for getting to class on time in the morning.

*Transition theory* posits that transition is significant only in terms of the individual’s perception of and response to crisis, transformation, change, or disequilibrium. Transition theory defines a transition as “any event or nonevent [i.e., anticipated event that ultimately does not occur] that results in change in relationships, routines, assumptions, and/or roles within the settings of self, work, family, health, and/or economics,” (Schlossberg 1984, p. 43). Some students may experience an overwhelming feeling of disorientation resulting from immersion in an environment with an unfamiliar culture, customs, behaviors, attitudes, and/or beliefs. For these students, the transition to college is an experience of culture shock (Pascarella & Terenzini, 2005). Some may feel the strong desire—or perhaps pressure—to maintain strong ties to family, friends, culture, and traditions, while simultaneously feeling the need to adapt to their new reality (Hsiao, 1992). And they may not really be sure about the status of their belonging in either realm (Lewin, 1939). Thus, some first-year college students inevitably are confronted with the negative face of change in terms of uncertainty, anxiety, isolation, alienation, self-doubt, and poor self-image. Institutions of higher education have long recognized this problem and developed a variety of programs to help students negotiate the issues confronting them (Jalomo & Rendón, 2004). These programs in one way or another address aspects of three all-important social processes.

*Separation, involvement, and validation* are three critical social processes relevant to the transition to college (Astin, 1982; Astin, 1999; Jalomo & Rendón, 2004; Rendón, 1993; Rendón, 1994; Rendón & Jalomo, 1995; Tinto, 1993). Separation is a process of change and
adjustment of social identities. It marks a change of state in who one is in relation to others. Involvement and validation are processes by which an individual actualizes participation as a member of a new community and receives affirmation regarding his or her potential for success. Although the processes of separation, validation, and involvement may be discussed independently, in reality, they do not operate in isolation from one another. It is the interplay of the processes that impacts the ease of transition along a path to success as a college student.

Separation is both a physical as well as an emotional transition. The physical aspects are fairly obvious. When an individual goes to college, they are also leaving something. That typically means that the individual is physically moving away from family, friends, familiar places, culture, customs, routines, and activities; and moving to a completely different physical—and social environment. The emotional impact of this process can vary considerably from person to person—from anxiety to excitement and from self-doubt to self-confidence (Clark, 2005; Jalomo & Rendón, 2004).

Involvement and validation are social processes that can help mitigate the negative effects of the process of separation (Astin, 1999; Astin, 1982; Jalomo & Rendón, 2004; Rendón, 1993; Tinto, 1993). Both are ways of creating connections and a sense of belonging in a new (higher education) environment. Involvement is about participation with others in activities associated with the college community. In situations where involvement does not come naturally or easily, institutional programs that encourage and inspire involvement can be beneficial. Ultimately, however, involvement depends on action by the individual in a
social setting. Validation, on the other hand, is a process that is imparted to the individual from the social group as a whole or from respected members of the group.

Validation is perhaps the most crucial process in terms of the development of a sense of belonging within the institution and its programs (Rendón, 1993). Validation affirms one’s likelihood of success. In much the same way that [constructivist] scaffolding can help guide learning in ways that help the learner build on previous knowledge, validation can illuminate a pathway to recognition as a member of a community. Here, the notion of pathway acknowledges the transition to college as a crucial phase in a continuum of past, present, and future. Experiences in the present are mediated by prior experience as well as by intentions, expectations, goals, and aspirations for the future.

Tinto (1993) identifies several categories from which individuals are less likely to have the kind of prior experience that adequately prepares them to deal with the realities of college. He maintains that the scope of transition—the gap that must be traversed by an individual is greater for those that come from families, schools, and communities where social norms, values, and behaviors are very different from those they will encounter in college. At what he refers to as a “typical” institution, Tinto claims that students from socio-economically disadvantaged backgrounds and ethnic minority cultures, as well as older students and the physically handicapped are more likely to encounter problems due to the greater scope of transition. It is absolutely important to note that these are general categories; it does not imply homogeneity within those categories. Ultimately, as Tinto points out, it is the individual’s response to the stress of the conditions of the transition to college that leads to a decision to stay or leave.
Separation

To the individual traditional first-year college student, separation involves leaving familiar day-to-day realities and the structured life of home and high school and moving to a new life as a college student with newfound autonomy as well as increased personal responsibilities. Differences in the effect of separation can be linked to differences in socio-economic status, family history of attending college, cultural values, and academic performance in high school (Jalomo & Rendón, 2004; Tinto, 1993).

For many students, matriculation is anticipated, expected, prepared for, and more or less presumed—in which case the process of separation may be experienced as a natural next step. Generally, separation is less of an issue for students that have: a family history of attending college; long been instilled with the expectation that they will get a college education; performed well academically in high school (i.e. received validation); and relative financial security (Jalomo & Rendón, 2004; Tinto, 1993). This categorization points directly to a “typical” middle-class White demographic. The qualifier, “typical”, is used here in precisely the same way that Tinto (1993) referred to the additional challenges faced by ethnic minorities in transition at a “typical” institution (see preceding section).

Students with a family history of attending college are more likely to receive support and encouragement from their families. Because these students have personal knowledge and experiences with others, whom they trust, who have gone to college and benefited from the experience, separation is a pre-affirmed next step; and involvement and validation often begin well before they arrive at college. Ethnic minority students are more likely than their
White counterparts to be first-generation college attendees (Attinasi, 1989; Hsiao, 1992; Jalomo & Rendón, 2004).

For those with little or no family history of attending college, separation can be more difficult—even threatening. Parents may not regard the value of a college education highly, feel they have the financial resources, or have the personal experience to wholeheartedly encourage and support the decision to go to college—and may even oppose the decision (Clark, 2005; Hsiao, 1992). These students lack the opportunity to assimilate any intimate knowledge and insight that could be provided by respected and trusted others who have benefited from the experience of going to college. In this situation, going to college is a significant departure from family experiences and expectations (Clark, 2005), may also be seen as a rejection of the value systems of the family, and is likely to more stressful. Again, students from a minority and/or marginalized culture and those from an economically disadvantaged background are more likely to experience the process of separation as a traumatic ordeal (Jalomo & Rendón, 2004; Tinto, 1988; Tinto, 1993).

Regarding the transition to college, differences in the experiences between students from socio-economically disadvantaged backgrounds and those from the middle class or wealthy backgrounds, as well as between students with an ethnic minority heritage and those from the [White] majority may also be linked with differences between aspirations and expectations. Individuals are generally the recipients—rarely the creators of expectations (Breakwell, 1978). Middle class White kids may expect to go to college; middle class White privilege leaves little need for aspiration. Working class and ethnic minority kids may aspire to a college education—even while they may not expect to be able to go to college.
Expectations arise from one’s social identities and associated social status, and are seldom imbued with the same level of emotional attachment as are aspirations. Aspirations are more personal, closely-held desires for change regardless of the likelihood of attainment. For students who are at a critical juncture in their efforts to fulfill their aspiration of getting a college education, transition to college carries with it emotional and potentially stressful elements not experienced by those with longstanding expectations of matriculation.

Uncertainty about one’s belonging occurs when crossing the borders from one group to another, or from being at the margin of a group. On the level of analysis of the individual, a desire to reduce uncertainty regarding one’s place in the world is a strong motivational force (Hogg, 1996; Hogg & Abrams, 1999; and Hogg & Mullin, 1999). Lewin (1939) points out that through experience, individuals usually develop—to a greater or lesser degree—an ability to sense the social context of a group and behave in ways they deem appropriate to the situation. When the group’s standards, norms, and behaviors are familiar, uncertainty may be minimal or readily resolved.

Students from families with little or no family history of attending college may not understand or recognize the behaviors, norms, standards, and criteria associated with validation of one’s status as a potentially successful student. This leads to extended uncertainty regarding acceptance by other members of the university community. Individuals that begin to migrate from one group to another are characteristically uncertain as to the status of their belonging to either group—which in turn generally leads to uncertainty in behavior (Lewin, 1939). Lewin contends that crossing the boundaries between social groups, especially moving to one of perceived higher status, almost invariably is accompanied by
inner conflict. The processes of involvement and validation are the crucial means by which individuals transcend uncertainty and deal with other manifestations of the process of separation.

**Involvement**

*Involvement* includes participating, making connections, interacting, and being engaged—both socially and academically in college life. Whereas validation is related to affirmation and mutual recognition of a trajectory of success as a member of a community of learners, involvement *engages* one in the practices of the community. Astin (1984) argues that involvement is contingent upon the investment of physical and psychological energy in an activity. Both academic and social involvement in the university require a student’s investment of time and energy. Students undergoing the transition from high school to college must acclimate to the academic as well as social differences. With a finite amount of time and energy available to them, students must be able to negotiate a harmonious balance of academic and social involvement.

Involvement enables the kinds of experiences that become the building material with which a student can construct a social identity as a student. As a member of the college community, an individual will also be a member of a constellation of multiple smaller—possibly divergent or possibly overlapping—and perhaps more personally meaningful and socially engaging communities. Activities related to involvement may include participation in group projects, out of class interaction with faculty or mentor(s), membership in a learning community or informal study group(s), special interest clubs, campus organizations, ethnic-oriented activities, and athletic and cultural events. Some students are capable of getting
involved on their own—and do so quite readily. Ethnic minority students, as well as those
that are more passive or simply do not know how to negotiate the system—tend to not get
involved as readily as others (Jalomo & Rendón, 2004).

Tinto (1993) cites a body of research that supports the notion that students are more
likely to learn if they are socially and intellectually involved in ways that lead to interaction
about learning issues with peers and faculty—especially outside the classroom. For students
who do not become actively involved in learning, college is a less meaningful and personally
transformative experience. As a less engaging experience, college is more likely to be seen as
a task to be completed rather than an experience of transformation (Tinto, 1993). The level of
social and academic involvement with faculty and peers is also related to student persistence.
In other words, the less academic and social involvement with faculty and peers a student
has, the more likely it is that that student will leave college prior to completion. Tinto
correlates the effect on persistence with the effect of involvement on the quality of effort that
students apply to their learning. Generally, the less students are socially and intellectually
involved in their college experience, the less quality effort they devote to their learning, and
the more likely it is that they will leave college prematurely.

Tinto (1993) contends that the greater incidence of academic difficulties among
minority students as a group is a reflection of the greater likelihood that individuals within
that group have come from disadvantaged backgrounds and inferior learning environments.
Thus, they are more likely to be less prepared academically and not know what to expect
regarding the academic demands of college. The result can be a less substantial framework of
understanding by which they can assimilate cues and new experiences in ways that lead to
accommodation of an accurate, positive academic self-concept. Not entirely unexpectedly therefore, recent findings indicate that compared with other students, African American students as a group are among the least satisfied with their college experiences (National Survey of Student Engagement [NSSE], 2005).

Minority students at PWIs face a situation where they have fewer peers and faculty with similar cultural backgrounds than their majority counterparts. They therefore might not have as many propitious opportunities to make social and intellectual connections with faculty and peers (Tinto, 1993). Recent palliative efforts notwithstanding, most PWIs in the U.S. have longstanding foundations and rich institutional traditions and histories grounded in: excluding, denying, belittling, and marginalizing ethnic minority students (Richardson & de los Santos, 1988). At these institutions, embracing, acknowledging, affirming, and ensuring validation of ethnic minority students is often a relatively new way of doing business. To address differences among social groups in the affective experience of involvement, leadership at PWIs have instigated a variety of programs. In spite of institutional efforts, cultural norms, processes associated with social categorization, and ponderous institutional traditions contribute, at least tacitly, to invalidation and noninvolvement.

Development of a social identity in affiliation with an institution of higher education or with any of the various associated smaller communities is not substantially different from the process of becoming a member of any other social community. Feelings of belonging depend on engagement with others and with the shared knowledge, perspectives, and values of the community in ways that are meaningful to the individual. Tinto (1993) finds,
“departure mirrors the absence of social and intellectual integration into or membership in community life and the social support such integration provides” (Tinto, 1993, p. 204). This is not to imply that students are likely to leave due to social reasons alone. Rather it affirms the correlation of transformative learning with the interplay of academic and social involvement.

This insight has led to widely-recognized guidelines for creating and maintaining an effective institutional environment in which students of diverse backgrounds are encouraged to be engaged in their learning. The first three of Chickering and Gamson’s (1987) “Seven Principles for Good Practice in Undergraduate Education” refer directly to the importance of involvement. Chickering and Gamson: (1) encourage in and out of class contact between faculty and students as the most important factor affecting student motivation and involvement; (2) promote collaboration, cooperation, and social interaction among students; and (3) call for students to be actively engaged with learning in ways that enable them to relate it to past experience, apply it in their daily lives, and make it a part of who they are.

Astin (1999) also identifies academic involvement, and involvement with faculty and with student peer groups as important means to enhance the undergraduate student’s cognitive and affective development. But he also notes the negative effects of various forms of ‘noninvolvement’. Noninvolvement comprises factors that tend to reduce interaction with faculty and peers, including “such things as living at home, commuting, attending part-time, being employed off campus, being employed full-time, and watching television” (Astin, 1999, p. 3).
While Chickering and Gamson’s (1987) focus is on the practice of teaching and learning, their principles parallel Tinto’s (1993) recommendations for facilitating involvement to foster student retention:

An institution’s capacity to retain students is directly related to its ability to reach out and make contact with students and integrate them into the social and intellectual fabric of institutional life. It hinges on the establishment of a healthy, caring educational environment which enables all individuals, not just some, to find a niche in one or more of the many social and intellectual communities of the institution. (Tinto, 1993, p. 204)

Tinto declares that to foster involvement, it is important that institutional representatives demonstrate the same kind of commitment to meaningful student learning as they hope students would have. Tinto stresses that from the perspective of the student, the institutional environment is, in essence, the sum of the nature of interactions and relationships with the other individuals that are part of the social and intellectual life of the institution. Student Affairs professionals, as institutional representatives, play critical roles in helping increase student involvement. But it is the interactions with peer groups that have the most powerful effect on virtually all aspects of students’ educational experience (Astin, 1999).

Pascarella and Terenzini’s (2005) extensive review of research on How College Affects Students describes a variety of factors that influence individuals’ general cognitive and intellectual development, critical thinking, reflective thinking, analytical competencies, thinking complexity, and postformal reasoning. Several of Pascarella and Terenzini’s
findings parallel those of Astin (1999), Chickering and Gamson (1987), and Tinto (1993), citing the positive effects of:

- Student level of academic effort and involvement.
- Social and cocurricular involvement—especially interactions with peers that extend or reinforce formal academic experiences.
- Nonclassroom interaction with faculty that extend or reinforce formal academic experiences.
- Diversity experiences—especially informal interactions with peers and participation in more formal programs such as workshops and coursework focusing on racial, social, and cultural diversity awareness, and intergroup relations.

In 2007, more than 600 colleges and universities participated in the National Survey of Student Engagement (NSSE), which gathers data annually about student academic and social involvement. The Five Benchmarks of Effective Educational Practice, developed by NSSE are based on the work of Astin, Chickering and Gamson, Pascarella and Terenzini, and others. NSSE’s indicators of student engagement are:

1. *Level of academic challenge*—time spent preparing for class, amount of reading and writing, and institutional expectations for academic performance.
2. *Active and collaborative learning*—participating in class, working collaboratively with other students inside and outside of class, tutoring, and so forth.
3. *Student interactions with faculty members*—talking with faculty members and advisors, discussing ideas from classes with faculty members outside of class,
getting prompt feedback on academic performance, and working with faculty members on research projects.

4. *Enriching educational experience* — interacting with students with different racial or ethnic backgrounds or with different political opinions or values, using electronic technology, and participating in such activities as internships, community service, study abroad, co-curricular activities, or a culminating senior experience.

5. *Supportive campus environment* — the extent to which students perceive the campus helps them succeed academically and socially; assists them in coping with non-academic responsibilities; and promotes supportive relations among students and their peers, faculty members, and administrative personnel and offices. (Kuh, Hayek, Carini, Ouimet, Gonyea, & Kennedy, 2001, p. 5)

Although NSSE’s five benchmarks directly address student engagement, each of them implies opportunities for validation as well. Rendón (1993) has suggested that validation may be a prerequisite for involvement to occur. While I don’t necessarily agree that it is a prerequisite, involvement without validation is destined to be tentative, and less likely to continue. Either way, successful transition to life as a college student, depends upon how well the student deals with the effects of separation, and is contingent upon whether he or she becomes involved and receives validation.

**Validation**

*Validation* of a developing identity as a college student is an individual, personally significant, internal confirmation of acceptance as a part of the community. An environment that the student finds to be unsupportive, unwelcoming, and non-affirming, can lead to
anxiety, isolation, alienation, self-doubt, and poor self-image. On the other hand, validation can lead to pride in academic accomplishments, and increased self-confidence and self-esteem.

Feedback is a vital component of any learning process insofar as it is the means by which individuals come to gauge correctness of performance—thus reinforcing appropriate behavior and reducing future inappropriate actions (Gagne, 1968; Reigeluth & Curtis, 1987). Learning how to be a college student is a transformational process—a process of becoming a member of a community of learners. Affirmation of an individual’s trajectory toward success may come from other established community members, including faculty, staff, and fellow students, as well as family, friends, coworkers, and other respected individuals. Feedback aids the student in navigating a sometimes-unclear pathway to acceptance as a legitimate participant in the community. Feedback along the way may be positive or negative—encouraging or discouraging—and strengthen or weaken confidence in the likelihood of success. In this sense, validation in the form of feedback from other community members that is supportive and lets students know that they are doing well and on the path to success is equally as important as feedback that helps students recognize that they are getting off track and helps to point them in the right direction.

Ellemers and Rink (2005) maintain that individuals, when placed in a situation in which they feel compelled to focus on one particular identity at the expense of another, experience some degree of lack of control and compromised self-determination. Thus, they recommend that an environment in which individuals are able to maintain a more complex and multilayered identity is more conducive to successful adaptation by newcomers.
Individuals are more likely to have a more positive response to a situation when they are able to activate or enhance an identity that is more harmonious with the circumstances without feeling pressured to invalidate their existing closely-held social identity preferences (Ellemers & Rink, 2005). By way of illustration, consider the internal conflict that may arise for a female Muslim student in the United States, who, hoping to be accepted in an academic setting, feels pressure to abandon her traditional customs and beliefs regarding appropriate public attire.

Identity Control Theory (Stets & Burke, 2005) builds on the premise that individuals behave in ways that correspond to meanings held within their identities. Within a given social situation, people naturally seek validation of their identities. Individuals tend to behave in ways that either maintain confirmation of an identity or eliminate discrepancies between the way they understand their identity versus the way others perceive their identity. For example, the student referred to in the previous paragraph may sense that those around her tend to see her as “the girl with the headscarf” and have little regard for her academic abilities or credentials. In that case, it would be natural for her to seek validation of her identity as a scholar and as a person (i.e., not girl) of faith. Discrepancies can elicit a range of emotional responses depending on the relationship of the individual and the other (Stets & Burke, 2005). For example, the absence of validation of one’s identity from others of:

- higher status or power can lead to anxiety or fear respectively;
- equal status or power can lead to annoyance or anger respectively;
- lower status or power can lead to hostility or rage respectively.
For an individual aspiring to a college education who is unsure of his or her standing as an effective student, invalidation by peers (i.e. equal status and power) can be expected to stimulate annoyance or anger. However, lack of validation from respected members of the institution, such as faculty, teaching assistants, or advisers can elicit feelings of anxiety or fear.

The extent to which an individual feels that his or her own identity is validated within a group is directly linked with that individual’s sense of belonging. Dovidio, Gaertner, Pearson, and Riek (2005) identified the essential connection between group identity and individual self-concept. As individuals begin to identify with a group, mutual expectations of cooperation and behaviors that are harmonious with group norms promotes connections with other group members and fosters development and maintenance of ingroup social bonds. Under these conditions, assurance of acceptance as a legitimate member of the group becomes essential to a secure self-concept (Dovidio et al., 2005). In the example of the female Muslim student, as she begins to feel that her academic abilities are recognized and her customs and beliefs are accepted by valued others, her sense of belonging and identity as a student will be strengthened.

Validation is a developmental continuum of assimilation and accommodation (Piaget & Inhelder, 1966) of enabling, confirming and supportive experiences, leading to feelings of self worth (Rendón, 1993). Validation is a process—not a result. It is most effective when provided very early on—and continuing throughout the college years (Benjamin, Earnest, Guenewald, & Arthur, 2007; Rendón, 1993). Validation can occur both in- and out-of-class through interaction with faculty, classmates, lab instructors and teaching assistants. Out-of-
class validation can be facilitated by family members, significant others, friends, counselors/advisors, coaches, tutors, and resident advisors. When validation is not adequately provided, students feel marginalized and mistrusted (Rendón, 1993). Paralleling Ellemers and Rink’s (2005) analysis of the importance to the individual of maintaining multiple identities, Rendón (1993) also argues that validation enables students to feel that everything that they bring to the college experience (e.g. previous experience and social identities) is accepted and recognized as valuable.

In addition to provision of validating feedback, the reduction of invalidating experiences is important as well. Invalidating processes have been ingrained in traditional models of teaching and learning as well as in the traditions of institutions. From the student perspective, invalidating experiences may include the overt, such as being told they are incompetent and likely to fail. Additionally, invalidation occurs when students feel like they are treated as a number rather than a person, when they are not included in class discussions, or when their past experiences are regarded as insignificant (see Jalomo & Rendón, 2004).

In interviews with students toward the end of their first semester at community colleges in Arizona, California, Texas, and North Carolina, Rendón (1993) found that traditional first-year students had few doubts about their ability to succeed; nontraditional and minority students expressed doubts and more often needed active intervention from significant others. It is critically important for faculty to believe that students are capable of learning—and to interact with students in ways that affirm this belief. Rendón (1993) suggested that faculty should:

- demonstrate a personal commitment to student learning and welfare,
• be friendly, approachable, and easy to talk to, in- and out-of-class,
• express a willingness to work with students who need extra help,
• establish a learning environment that acknowledges and accommodates learners from a variety of backgrounds and a range of previous experiences,
• provide ongoing feedback to students that is personally meaningful to them.

Summary

There are two major interdependent high school-to-college transitions: academic and social (Tinto & Goodsell, 1993; Pascarella & Terenzini, 2005; Silverman, 2007). To the individual, transition is meaningful in terms of her or his response to crisis, transformation, change, or disequilibrium (Schlossberg 1984). For many students, college can provide a transitional environment between adolescence and adulthood in which they may experience the benefits of newfound autonomy, new social networks, pride in academic accomplishments, and increased self-confidence and self-esteem (Pascarella & Terenzini, 2005). However, some first-year college students experience the negative face of change in terms of uncertainty, anxiety, isolation, alienation, self-doubt, and poor self-image.

Separation, involvement, and validation are three important interconnected social processes that are fundamental determinants of an individual’s personal experience of the transition to college (Astin, 1982; Astin, 1999; Jalomo & Rendón, 2004; Rendón, 1993; Rendón, 1994; Rendón & Jalomo, 1995; Tinto, 1993). Separation is a process of change and adjustment of social identities, marking a change of state in who one is in relation to others. Potential negative affects of the process of separation can be mitigated by involvement and validation. Both are ways of creating connections and a sense of belonging in a new college
environment. Involvement fosters social and academic engagement in college life. Validation of a developing identity as a college student is an individual, personally significant, internal confirmation of acceptance as a part of the community, leading to pride in academic accomplishments, and increased self-confidence and self-esteem.

**Programs Designed to Facilitate Successful Transition to College**

As discussed in the preceding section, Rendón (1993) suggested validating actions and behaviors recommended for faculty, but most of them are equally applicable for Student Affairs staff and other members of the university community. Those suggestions are but a few of the ways in which institutional representatives can help provide a nurturing culture and safe transitional environment wherein first-year students can have a positive experience of transition. This section provides an overview of several specific ways in which colleges and universities work to enhance students’ social and academic transition by addressing various aspects of the interconnected processes of separation, involvement, and validation.

Numerous communities of various size and foci are subsumed within the broader university community. Some are formally organized by the university to support various constituencies. These include cultural programs, such as those serving students of color and various international student groups; and support centers, such as lesbian, gay, bisexual, transgender student services. Other university-supported communities include learning communities; honor societies; academic and professional organizations; residence-based groups; special-interest groups; community service groups; athletics; fraternities and sororities; religious and spiritual; and political interest groups. Each of these smaller communities within the larger university community offers students an opportunity to be
involved in ways that can reduce the perceived size and complexity of a large university down to a more manageable conception and personal community (Attinasi, 1989). They also provide students with the opportunity to develop and sustain a network of friends and a sense of belonging (Astin, 1984; Schlossberg, 1984). These programs help students negotiate the academic and social transitions from high school to college, from dependence to independence and interdependence, and from adolescence to adulthood.

In a review of approximately one hundred articles on studies in first- and second-tier journals that commonly publish research in the field of higher education, Patton, Morelon, Whitehead, & Hossler (2006) found little evidence to support assertions of the effectiveness of many campus-based programs to enhance student persistence. Patton et al. identified five general categories of programs and services to enhance student persistence: counseling, mentoring, learning communities, programs to enhance student-faculty interaction, and transition/orientation programs. Evidence supporting the effectiveness of most programs was either weak (counseling and mentoring) or small to moderate (learning communities and programs to enhance student-faculty interaction). The category of programs focusing specifically on student orientation or transition was the only category for which there was moderate to strong positive evidence of improvement in student retention rates (Patton et al., 2006).

College and university efforts to enhance student persistence may, at first blush, appear to be motivated by factors related to institutional performance and accountability. Porter & Swing (2006) contend that programs such as first-year seminars have been implemented to: keep tuition money flowing in; enhance institutional reputation—based in
part on first-year retention rates; and fulfill the institutional mission—based on statistical evidence of student persistence through graduation. In his discussions of persistence and retention, however, Tinto (1993) emphasizes the importance of focusing holistically on the individual. Retention rates may be one way of measuring institutional effectiveness; but retention is the net result of the persistence efforts of individual students. Tinto argues that persistence is enhanced within an inclusive, nurturing environment in which all students are able to realize involvement, validation, and integration into the academic and social life of the institution.

Whatever their motivation may be, colleges and universities have implemented a variety of programs to help students negotiate the challenges associated with separation and become involved in the social and intellectual life of the institution in ways that lead to validation of their social identities as students. Although these programs are all designed to help ensure student success, they tend to target different aspects and phases of the transition process. Different phases, in a broad sense, include the general categories of pre- and post-matriculation behaviors and attitudes, or as Attinasi (1989) refers to them, “getting ready” and “getting in” (p. 255). Some of the more common strategies are early outreach programs, orientation programs, bridge programs, learning communities, and first-year seminars.

**Types of programs**

*Early outreach programs* connect with students and their families when the students are well before college age (Jalomo & Rendón, 2004). A primary goal is to help students begin to realize the possibilities for their future in higher education and visualize a clearer path in that direction—and provide specific assistance to instill confidence and develop
needed skills. These programs begin to build connections through which minority students, for example, can not only gain in academic preparation, but develop aspirations of going to college as well (Richardson & de los Santos, 1988). Pre-college experiences associated with early outreach programs can help individuals and their families visualize what it would be like to go to college, and bring about expectations that the individual will eventually go to college (Attinasi, 1989). As aspirations and expectations take shape, individuals begin to identify with the behavior, attitudes, and practices of the college community; thus preparing for the transition in a process Attinasi refers to as “anticipatory socialization”. Attinasi suggests that anticipatory socialization, a construct that has been used more frequently in reference to occupational preparation, may aid an individual’s rise into the aspired to group and ease his or her adjustment once he or she has become part of the new group.

Bridge programs generally occur—but are not necessarily limited to—the summer between high school and college. Bridge programs help incoming students to build networks of support, both socially and academically. Bridge programs often provide tutoring and advising as well as opportunities for participation in collaborative study groups, development of study skills, acclimation to the college environment, learning how to negotiate the institutional system, and introduction and initiation in to new cultural experiences. Additionally, participants make connections with faculty, staff, and current students, as well as other incoming students. Richardson and de los Santos (1988) recommend bridge programs for underprepared students to enhance the likelihood of their academic success. Bridge programs comprise a variety of forms—targeting specific populations of incoming students. Programs may be geared toward assisting minority, low-income, disabled, or first
generation students (Kezar, 2000). They may also be oriented to students entering specific programs, such as mathematics or science.

Orientation programs are the most common types of programs to help students begin to acclimate to the new environment and culture. Traditionally, orientation programs involve one-day to weeklong, hosted visits to campus prior to the start of classes in the fall. Students participating in orientation are usually able to meet with an academic advisor, register for classes, and become more familiar with the campus (Benjamin, Earnest, Gruenewald, & Arthur, 2007). In addition to the typical summer orientation for traditional-age new students, custom-tailored orientation programs may be provided to meet the needs of specific demographics, such as transfer students or ethnic minority students. The National Survey of Student Engagement (NSSE) (2005) found that in 2005, “[87% of] first-year students attended an institution-sponsored orientation program” (p. 14). NSSE also found that compared to non-participants, orientation program participants:

- Were more involved in educationally enriching activities.
- Perceived the campus environment to be more supportive.
- Reported greater developmental gains during their first year of college.
- Were more satisfied with their overall college experience.

(NSSE, 2005, p. 15)

Orientation programs provide a basic framework around which new students can begin to build a conceptualization of the college or university environment. In open-ended interviews with eighteen Mexican American students at a large public southwestern university, Attinasi (1989) found, “in describing their early impressions of the university, the
informants were virtually unanimous in emphasizing a perception of ‘bigness’” (Attinasi, 1989, p. 262). New students perceived the university to be large and complex not only in terms of physical geography, but also in social as well as academic/cognitive landscape. Attinasi posits that individuals are able to reduce the perceived size and complexity of a large university down to a more manageable conception by developing “cognitive maps”.

Cognitive mapping enables incremental construction of connections and personally meaningful relationships—allowing individuals to fill in the gaps and adapt and adjust in ways that are appropriate to their own needs and experience (Attinasi, 1989). While orientation programs may be able to provide a framework for the beginnings of cognitive mapping of the physical, social, and academic landscape, other programs, such as first-year seminars, take the process a few steps further.

*First-year seminars* bring students together generally on a weekly basis throughout their first year of college to engage students directly and help them adjust socially and academically. First-year seminars provide students with the same basic benefits as orientation programs do, but the NSSE (2005) found that seminar participants reported additional gains not demonstrated by the data from orientation program participants. Among these additional gains, compared to non-participants, those that did participate in first-year seminars were more likely to use campus services, such as academic advising, career planning, financial aid advising, and academic assistance. They were also more inspired to rise to the task academically, reported participation in more active and collaborative learning activities, and interacted more frequently with faculty (NSSE, 2005). Additionally first-year seminar participants, on average, participate more frequently in campus activities, receive higher
grades in other first-year classes, and are less likely to be put on academic probation than first-year seminar non-participants (Porter & Swing (2006).

In their study of persistence among first-year seminar participants, Porter and Swing (2006) found that student expression of intention to persist was most strongly correlated with student gains in study skills and health education. They commented that while it is not surprising that acquisition of better study skills is associated with increased confidence in the likelihood of success in college, the positive effect of health education is not immediately obvious—leading them to speculate that the effect may well be associated with students perceptions that, when faculty interact with them about issues of wellness, there is implicit—if not explicit—acknowledgement of them as individuals in a more holistic sense. Ironically, “faculty often report that their least favorite part of first-year seminars is teaching study skills, and that the area they feel least prepared for is the counseling aspects of helping students develop holistically” (Porter & Swing, 206, pp. 106–107). This suggests an opportunity for focusing professional development activities of faculty and student affairs professionals associated with first-year seminars to recognize the importance of and develop the skills to address students’ social and emotional needs, in tandem with academic preparation.

In some cases, first-semester students may not recognize the relevance of topics covered in first-year seminars (Clark, 2005). Clark points out that those students, having never experienced a need for specific knowledge, may be unable to cognitively assimilate seminar topics in ways that will be useful when the need for that knowledge does arise.
Clark, therefore, recommends first-year seminars should extend through the second semester to maximize effectiveness.

*Learning communities* are groups of students that generally take one, two, or more courses together (Tinto & Goodsell, 1993). Members of a learning community often share similar academic interests and goals. Although learning community members may or may not live in the same residence hall, by belonging to a smaller community within the larger social, academic, and physical university landscape, they are able to experience the big campus as a smaller, more personally-connected and cognitively-manageable community (Attinasi, 1989). Learning community membership facilitates activation of a supportive network with other students, peer mentors, and faculty—enabling opportunities for collaborative learning through shared academic and social interaction.

Data from a large Midwestern public university indicate that participation in learning communities is consistently correlated with increased persistence (Iowa State University Office of Institutional Research, 2007). Although learning communities have been shown to be effective means of increasing student retention, some research has called into question whether they are able to impact intellectual growth as well (Browne & Minnick, 2005). Browne and Minnick maintain that it is indeed possible to do both, but argue that learning communities must be purposefully designed and implemented with both goals in mind. Kuh (2007), however, found that in addition to becoming more likely to persist through graduation, “students who participated in learning communities studied more, and they engaged more frequently in higher-order mental activities such as synthesizing material and analyzing problems” (Kuh, 2007, p. 7).
Much like first-year seminars, learning communities enable a holistic focus on students as they transition to life as college students. In harmony with John Dewey’s philosophy of education, student affairs professionals and peer mentors can be involved in learning communities—as facilitators of and participants in learning as a more collaborative and cohesive experience (Ellertson & Thoennes, 2007).

Learning communities, like orientation and first-year seminars, can also accommodate reduction of the perceived size and complexity of a large university. Rather than being on one’s own in a large and complex university, learning community participants are socially and academically involved within the more cognitively-manageable communities of learners. Validation of one’s developing identity as a valued, contributing member of a learning community thus becomes more fathomable and less uncertain. Ellertson and Thonnes (2007) contend that “[in] a true learning community . . . [students] will know, understand, and be invested in the goals of the entire community; be invested in learning outcomes for themselves and their cohorts; and be able to recognize that how they perform and act in the community has an impact on how the community will succeed” (pp. 38–39).

**Programs for individuals from marginalized groups**

As part of a national effort to combat poverty in the United States, the Economic Opportunity Act of 1964, initiated several programs promoting health, education, and general welfare. One of those initiatives, Upward Bound, became the first of the federal TRIO programs, which were created to increase opportunities for higher education for low-income Americans (Council for Opportunity in Education, 2007; U. S. Department of Education Office of Postsecondary Education, n.d.). Currently, in addition to Upward Bound, TRIO
programs designed to help secondary school students prepare for, transition to, and graduate from college also include Talent Search, Student Support Services, Upward Bound Math/Science Talent Search, and the Ronald E. McNair Post-baccalaureate Achievement Program. White and African American students participate in nearly equal numbers, at 37% and 35% of all TRIO students respectively, while the remaining percentage includes Hispanics (19%), American Indians (4%), Asian Americans (4%); and “other” (1%) (Council for Opportunity in Education, 2007). Two-thirds of TRIO program student participants come from families in which neither parent completed a college education and whose annual income is less than a certain amount—$28,000 (as of 2007) for a family of four (Council for Opportunity in Education, 2007).

Program implementation: One school’s repertoire

Specific implementations of TRIO programs are varied because funding is provided in the form of direct grants based on competitive proposals to address local needs and goals (Council for Opportunity in Education, 2007). TRIO programs at Iowa State University, for example, are part of a more comprehensive effort to help secondary school students visualize opportunities and develop aspirations and expectations to matriculate, overcome class, social, cultural, and/or economic challenges, and become successful college students. The four TRIO programs at Iowa State University are Educational Talent Search, Upward Bound, Student Support Services, and Ronald E. McNair Post-baccalaureate Achievement (TRIO programs at Iowa State University, n.d.).

Educational Talent Search (ETS) is a TRIO-affiliated outreach program at Iowa State that serves students in grades six through twelve in five specific school districts within sixty
miles of the university (TRIO programs at Iowa State University, n.d.). ETS provides academic, financial, and personal counseling, as well as other activities, such as visits to campuses of several different Iowa colleges and universities. The basic goals of ETS are to identify students with potential for college success, and increase the chances that they will complete high school and enroll in college (TRIO programs at Iowa State University, n.d.).

Whereas ETS helps secondary school students to realize opportunities to attend college, Upward Bound at Iowa State helps them develop the attitudes, motivation, and skills for successful transition to life as a college student (TRIO programs at Iowa State University, n.d.). Twice-monthly sessions on Saturdays when school is in session provide classes, workshops, and tutoring to those ends. A summer component of Upward Bound enables students who have completed their sophomore year in high school to take summer-session college classes or to participate in a six-week program that includes a wide variety of subject matter. There is also a summer bridge component where participants who have graduated from high school and plan on attending college in the fall, can take up to six credits of summer classes at Iowa State—with all expenses covered by the Upward Bound program.

Student Support Services focuses on students’ success after they are enrolled in college. The Student Support Services program provides academic, personal and financial aid advising, tutoring, career planning assistance, peer mentoring, and cultural and educational activities (Iowa State University Dean of Students Office, n.d.b).

The Ronald E. McNair Post-baccalaureate Achievement Program at Iowa State University prepares participants for graduate school with the goal of increasing the number of low-income, and/or African American, Native American, or Latino students receiving the
Ph.D. McNair scholars are required to take a series of four one-credit research-oriented junior- and senior-level courses and complete a two-year research project with the benefit of guidance from a faculty mentor (Iowa State University Graduate College, n.d.).

Science Bound is one of a multitude of non-TRIO-related programs to assist individuals from marginalized groups to enroll and succeed at Iowa State University (Iowa State University Science Bound, 2008). The Science Bound program engages students in grades eight through twelve and encourages and prepares them to enroll, pursue and earn degrees, and succeed in college mathematics, science, engineering, or technology programs. Once enrolled in the university, they participate in a first-year seminar to ensure they successfully adjust to the academic, social, and cultural environment.

Multicultural Student Affairs (MSA), a department within Iowa State University’s Dean of Students Office seeks to enhance the holistic development of ethnic minority (African American, Latino/a American, Asian American/Pacific Islander, American Indian/Alaskan Native, and Bi/Multiracial) students of color (Iowa State University Dean of Students Office, n.d.a). MSA coordinates more than a dozen programs focusing on, among other things, acclimation to college life, academic success, diversity education, and identity, community, leadership, and career development (Appendix D).

The University’s Division of Student Affairs coordinates Minority Student Scholarships; scholarships of $2,000, divided between two semesters, available for the 2008-2009 academic year include: Crazy Horse Scholarship, for Native American students; Donald Smith Scholarship, for African American sophomores, juniors, or seniors, studying in any technical field; Herta David Minority Student Scholarship, for minority students who
will be in their sophomore, junior or senior year; and the Lawrence Shindel Scholarship, for Native American, full-time students (Iowa State University Division of Student Affairs, n.d.).

In addition to university-wide programs for students from traditionally marginalized groups, there are several college-based programs. For example, the College of Agriculture and Life Sciences has a nationally-recognized chapter of Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS), which fosters and promotes the agricultural sciences and related fields among underrepresented groups (Iowa State University College of Agriculture and Life Sciences, n.d.). The College of Engineering Leadership through Engineering Academic Diversity (LEAD) program works to enhance the academic success of multicultural students and increase the number of successful ethnic minority engineering graduates (Iowa State University College of Engineering, n.d.).

**Summary**

Colleges and universities have implemented a variety of programs to help students negotiate the academic and social transitions from high school to college. Specific efforts often include cultural programs, such as those serving students of color and various international student groups; and support centers, such as lesbian, gay, bisexual, transgender student services. Many of these efforts offer activities and environments designed to help students develop and sustain a network of friends and a sense of belonging (Astin, 1984; Schlossberg, 1984) and reduce the perceived size and complexity of a large university down to a more manageable conception and personal community (Attinasi, 1989). Although these programs are all designed to help ensure student success, they tend to target different aspects and phases of the transition process. Some of the more common strategies are early outreach
Federal TRIO programs were created to increase opportunities for higher education for low-income Americans, help secondary school students prepare for, transition to, and graduate from college (U. S. Department of Education Office of Postsecondary Education, n.d.; Council for Opportunity in Education, 2007). Four TRIO programs at Iowa State University are Educational Talent Search, Upward Bound, Student Support Services, and the Ronald E. McNair Post-baccalaureate Achievement Program (TRIO programs at Iowa State University, n.d.). More than a dozen non-TRIO programs to assist individuals from marginalized groups become successful students have been implemented at Iowa State University. Science Bound is among these.

**Online Social Networks**

**Introduction**

As outlined in the preceding section, colleges and universities have instituted a wide variety of programs to enhance students’ transition to and success in college. In addition to existing programs, institutions may also wish to consider the potential of recently developed technologies that foster building and maintaining networks of personal and group connections. The blossoming of an overwhelming number of technologies for communication is correlated with the ability as well as the desire to stay connected with networks of friends (Boase, Horrigan, Wellman, & Rainie, 2006). Due to the ubiquity of technologies for social networking, millennials tend to regard them as part of their way of life rather than as a new set of tools (Salaway & Caruso, 2007; Shier, 2005). Online Social
Network Services (OSNSs) may be able to provide a familiar, comfortable environment within which students can explore and articulate their existing as well as developing identities as they transition into life as a college student. Broido (2004) notes the potential for online social network services to provide a “safer” variety of forums for discussions that might otherwise be uncomfortable and constrained face-to-face.

This section provides a conceptualization of online social networks and a working definition of online social network services. It also advances a critical examination of OSNSs and social stratification, as well as an articulation of connections between OSNSs and theories related to social identity. Lastly, it offers a brief overview of issues related to OSNSs and education. This will set the stage for the concluding section of this literature review, which proposes possible ways in which OSNSs may facilitate the transition from high school to college for ethnic minority millennial generation teens. See Appendix B for a list of key terms and concepts.

**Background**

It can be argued that the nature of human social interaction has always been mediated by technology. Technology—beginning with the first purposeful use of primitive tools, the mastery of fire, communication by scratching in the dust, cave paintings, and even the construction and evolution of language—has been inextricable intertwined with human behavior, social grouping, and the development of a concept of community. Recent data regarding Internet use by teens and young adults demonstrates a propensity for near ubiquitous utilization of online technology. Among U.S. twelve- to seventeen-year-olds responding to a 2004 survey by the Pew Internet & American Life Project, 87% used the
Internet—up from 73% in 2000 (Lenhart, Madden, & Hitlin, 2005). By 2006, 95% of the twelve- to seventeen-year-olds indicated they were Internet users (Lenhart & Madden, 2006). Lenhart et al. (2005) identified the most frequent online activities among twelve- to seventeen-year-olds in 2004:

- 89% send or read email.
- 84% go to websites about movies, TV shows, music groups, or sports stars.
- 81% play online games.
- 76% go online to get news or information about current events.
- 75% send or receive instant messages.

Among the Internet users responding to the 2006 Pew Internet & American Life Project survey, 55% indicated they had used social networking sites and created a personal online profile (Lenhart & Madden, 2006). A report by the National School Boards Association (2007) indicates that 71% of nine- to seventeen-years olds with Internet access use social networking sites at least weekly. Responses among twelve- to seventeen-year-olds that have used social networking sites reveal:

- 91% use the sites to stay in touch with friends they see a lot.
- 82% use the sites to stay in touch with friends they rarely see in person.
- 72% use the sites to make plans with friends.
- 49% use the sites to make new friends.
- 17% use the sites to flirt with someone (Lenhart & Madden, 2006).

All of the currently most popular OSNSs enable individuals to share who they are and what they do via online profiles, interact with others, and participate in online communities.
Social networking sites have experienced phenomenal annual growth in number of visitors. Data from comScore World Metrix (2007) indicates that between June 2006 and June 2007 the average number of daily visitors to Facebook quadrupled; from 3,742,000 to 14,917,000.

Table 1 shows a list of OSNSs along with numbers of users as of February 11, 2007 and April 6, 2008 according to contributors to Wikipedia (2008a).

The demographic profiles of age groups visiting social networking sites vary relative to each site’s focus (Figure 2). The two age groups with the greatest proportion of the total visitors to Facebook.com are 18- to 24-four-year-olds and 35- to 54-year-olds, at 34% and 33.5% respectively (comScore Media Metrix, 2006). Notably, these groups roughly correspond with the age of traditional college students and the age of parents and teachers of middle school, high school, and college age students.

Table 1. User count of notable social networking websites, February 11, 2007 and April 6, 2008 (adapted from Wikipedia, 2008a).

<table>
<thead>
<tr>
<th>Name</th>
<th>Description/Focus</th>
<th>User count (Feb., 2007)</th>
<th>User count (April, 2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MySpace</td>
<td>General</td>
<td>154,000,000</td>
<td>110,000,000</td>
</tr>
<tr>
<td>Facebook</td>
<td>Started for colleges, then high schools, and now anyone.</td>
<td>16,000,000</td>
<td>97,800,000</td>
</tr>
<tr>
<td>Windows Live Spaces</td>
<td>Blogging (formerly MSN Spaces)</td>
<td>30,000,000</td>
<td>40,000,000</td>
</tr>
<tr>
<td>orkut</td>
<td>Popular in Brazil, India.</td>
<td>41,000,000</td>
<td>59,000,000</td>
</tr>
<tr>
<td>hi5</td>
<td>General</td>
<td>70,000,000</td>
<td></td>
</tr>
<tr>
<td>Friendster</td>
<td>General</td>
<td>29,100,000</td>
<td>58,000,000</td>
</tr>
<tr>
<td>Classmates.com</td>
<td>School, college, work and the military</td>
<td>40,000,000</td>
<td>40,000,000</td>
</tr>
<tr>
<td>BlackPlanet.com</td>
<td>African-Americans</td>
<td>16,000,000</td>
<td>17,000,000</td>
</tr>
<tr>
<td>Cyworld</td>
<td>Young South Koreans</td>
<td>15,000,000</td>
<td>21,200,000</td>
</tr>
<tr>
<td>LinkedIn</td>
<td>Business</td>
<td>8,500,000</td>
<td>20,000,000</td>
</tr>
</tbody>
</table>
The demographic profiles of age groups visiting social networking sites vary relative to each site’s focus (Figure 2). The two age groups with the greatest proportion of the total visitors to Facebook.com are 18- to 24-four-year-olds and 35- to 54-year-olds, at 34% and 33.5% respectively (comScore Media Metrix, 2006). Notably, these groups roughly correspond with the age of traditional college students and the age of parents and teachers of middle school, high school, and college age students.

\[ \text{Numbers of Unique Visitors (in Millions)} \]

<table>
<thead>
<tr>
<th>Age Group of Visitors</th>
<th>Total Internet</th>
<th>MySpace.com</th>
<th>Facebook.com</th>
<th>Friendster.com</th>
<th>Xanga.com</th>
</tr>
</thead>
<tbody>
<tr>
<td>55+</td>
<td>173.4</td>
<td>55.8</td>
<td>14.8</td>
<td>1.0</td>
<td>0.8</td>
</tr>
</tbody>
</table>

\[ \text{Percent Composition of Unique Visitors} \]

1 Differences in total numbers of members (Table 1) and numbers of unique visitors (Figure 2) are due in part to inactive memberships.
Conceptualization of a social network

An individual-centric conceptualization of a social network comprises the web(s) of connections between an individual and other individuals. The nature of these connections is as diverse as the variety of unique individuals within that particular social network. Interpersonal connections may range from very close friendships and family to collegiality to casual acquaintances. These interpersonal relationships can be categorized as either weak or strong ties. Most individuals have a collection of “close friends, most of whom are in touch with one another—a densely knit clump of social structure” (Granovetter, 1983, p. 202). Strong ties are important for individual support and belonging and are characterized by a greater: emotional attachment; mutual confiding and reciprocity; and amount of time spent interacting (Granovetter, 1973). Granovetter (1973, 1983) argues, however, that the weak ties—with more casual acquaintances and group members are crucial to broaden one’s horizons; exposing them to a greater diversity of people and perspectives.

Online social network services

“Social software”, “social networking technologies”, and “online social network services” are but a few of the terms that refer to an evolving genre of technologies that enable individuals to establish, maintain, and reinforce social connections. Currently, Facebook (see Appendix H) and MySpace are widely used online social network services (OSNSs); and group electronic mail (email), multi-user virtual environments (MUVEs), wikis, weblogs
(blogs) are other categories of commonly cited social software (Owen, Grant, Sayers, & Facer, 2006). However, because exemplars of what is encompassed by the terms, social software and online social network services seem to be constantly changing, a definition must be at once both broad and succinct. Owen et al. attribute origin of the term “social software” to Clay Shirky, a consultant, teacher, and writer on the social and economic effects of Internet technologies. Shirky offers a simple definition: social software is “software that supports group interaction” (Shirky 2003).

Wikipedia, a resource that itself is commonly cited as one current exemplar of social software, states, “a social network service uses software to build online social networks for communities of people who share interests and activities or who are interested in exploring the interests and activities of others” (Wikipedia, 2008b). Although Wikipedia is not recognized by the academic community as scholarly (ELI, 2007b; Foster, 2007), in this instance, it does provide a relevant consensus of the current (March 11, 2008) understanding held by the community of contributing participants. In that sense, this socially-negotiated definition is arguably as valid as any other source.

**OSNSs and face-to-face communication**

It seems that for every enthusiastic proponent of the potential positive application of a technology, one can easily find an equally fervent critic, skeptic, or detractor, who is appalled by its ramifications. Indeed, persuasive and emotional arguments on both sides can easily strike an intuitive chord in many—based to a large degree upon the perceptions of possible consequences and/or anecdotal observations of behavioral changes. Michael Bugeja, director of the Greenlee School of Journalism and Communication at Iowa State University, for
example, has drawn a great deal of attention for his recent book, *Interpersonal Divide: The Search for Community in a Technological Age* (Bugeja, 2005).

Bugeja capitalizes on and manipulates an older generation’s intuitive, gut-reaction to the younger generation’s propensity for overwhelmingly embracing new technologies for social networking. Without any citation of scholarly evidence whatsoever, he asserts that communication is *always* best done face-to-face (Bugeja, 2005). And although *Interpersonal Divide* offers a few subtle clues that he really doesn’t wholeheartedly believe in his call for a return from the brink of what he attempts to convince his readers will be a total loss of meaningful interpersonal connections, he maintains a somewhat surreal argument that people should abandon their reliance on communication technologies and social software—and live exclusively in the three-dimensional world. Bugeja has suggested we are plunging headlong into a technologically-mediated purgatory. He has even gone so far as to propose that the only way to save humankind from this fate is a worldwide catastrophe that can “save” us by destroying our technologically-dependent society—while it incidentally wipes out a significant portion of the world’s population (Bugeja, 2006b).

Research published by the Pew Internet & American Life Project (Boase, Horrigan, Wellman, & Rainie, 2006) calls into question the assertions of those who suggest the widespread use of technology necessarily results in loss of meaningful face-to-face communication. Contrary to fears that email would result in a reduction in other forms of contact, Boase et al. found, for example, that more contact between individuals by email is correlated with more in-person and phone contact. Their findings also indicate that rather than destroying interpersonal relationships or instigating antisocial behavior as a result of less
time spent in face-to-face interaction, in most instances, time spent on the Internet comes at the loss of time spent either watching TV or sleeping—activities not generally considered to be socially engaging. They conclude that the Internet “is enabling people to maintain existing ties, often to strengthen them, and at times to forge new ties” (Boase et al., 2006, p. vi).

Lenhart, Madden, & Macgill (2007) found that teens that they identified as “[Internet] content creators are just as likely as non-creators to participate in . . . most offline extracurricular activities and more likely to participate in certain specific offline activities” (p. 15). Lenhart et al. characterized OSNSs users as “super-communicators” that are more likely than non-OSNSs users to use multiple other forms of communication on a daily basis, including using cell phones (63% vs. 41%), landline phones (44% vs. 34%), text messages (36% vs. 17%), instant messages (42% vs. 16%), and email (21% vs. 7%) to stay in touch with friends. Most significantly, 38% of social network user respondents to the 2006 survey reported talking with friends face-to-face on a daily basis, while only 25% of non-users of social networks reported doing the same (Lenhart, Madden, & Macgill, 2007).

**OSNSs and social stratification**

Cockburn & Ormrod (1993) observed that technologies, ideas, and artifacts are social constructs—and social actors affect the course of technological development and its outcomes. They point out that these social actors include inventors, scientists, engineers, and the people in business, production, distribution, and marketing, consumption, feedback, and redesign, as well as capitalistic corporations, the military/industrial complex, and government authority. A critical perspective acknowledges that technologies are socially-constructed manifestations that carry with them a reflection of the values and power relationships of the
social context in which they were developed. This calls for efforts to recognize and minimize the potential for those technologies to create, perpetuate, or exacerbate existing social inequities and stratification based on, for example, economic status, ethnicity, or gender.

Lenhart, Madden, & Hitlin (2005) found disparity among ethnic and socio-economic groups in the percent of Internet users, email users, and instant messagers. For example, results of their survey conducted in the fall of 2004, indicated that among twelve- to seventeen-year-olds, instant messaging (IM) was used by 68% of those identified as White; 63% of English-speaking Hispanic teens; and only 50% of African-American teens. According to Lenhart et al. (2005), the 13% of twelve- to seventeen-year-olds in the United States they identified as non-Internet users were clearly defined by lower levels of income and disproportionately African American. In 2004 use of the Internet by twelve- to seventeen-year-olds from families with an annual income of less than $30,000 was 73%; while among those from families with an annual income of greater than $30,000 was 90%; and in households with annual incomes of $75,000 or more, nearly all use the Internet—mostly with high-speed connections (Lenhart et al., 2005).

More recent data indicate that the disparity of Internet access by socio-economic class and ethnicity may be becoming less of an issue. For example, researchers with the Pew Internet & American Life Project (Lenhart, Madden, & Macgill, 2007) found that teens living in lower-income households are more likely to blog (author online journals) than teens living in higher income households. Lenhart et al. (2007) also found that among American teens who use the internet, 79% of African American teens indicated that they used the Internet to look for information about colleges and universities, compared to only 51% of
White teens, who reported the same activity. Silverman contends that disparity in access to and skills in using technology that has “varied across certain demographic groups such as age, ethnicity, class, and geography . . . has been evolving, translating to more students from underrepresented minority groups being represented online” (Silverman, 2007, p. 8).

**OSNSs and education**

Owen, Grant, Sayers, & Facer (2006) suggest that the evolution of social software is converging with the goals of education both in terms of personalizing educational experiences as well as collaboration. Supporting this with several key examples, they suggest that, in relation to education, OSNSs as a whole:

- Provide forums within which groups can coalesce around shared interests.
- Enable many avenues of communication among members of groups or communities.
- Provide systems whereby the resources, knowledge, perspectives, and practices of a community can be shared among novices and experts alike.
- Facilitate collaboration in gathering, understanding, organizing, connecting, combining, and creating knowledge.
- Prompt critical formative feedback for work in progress shared with others by the author.
- Allow access to content and communication in ways appropriate to the creator, recipient and context.

Although Bugeja (2005) insists that collaborative learning is entirely incompatible with online education, people that are currently coming to college expect to learn in a
digitally-rich environment (Owen et al., 2006). Online environments that facilitate social networking can be not only very engaging socially, but also provide familiar venues within which young people can collaborate on schoolwork. Lenhart, Madden, & Hitlin (2005) found that among twelve- to seventeen-year-olds “nearly eight in ten (78%) instant messagers said they talked about homework, tests, or school work over instant messaging” (2005, p. 23). A National School Boards Association (2007) report indicates that 59% of nine- to 17-years olds with Internet access say they use social networking sites to talk about education related topics\(^2\); and 50% indicated that they use social networking sites to talk specifically about schoolwork. Recalling learning theorists from Dewey to Wenger, and the kind of learning that goes on outside of school, Owen et al. (2006) suggest it is possible the activities enabled by OSNSs can be used to create communities of learning that offer personalized, collaborative learning experiences.

A bulletin from Educause Learning Initiative (ELI) (2007a) points out that the millions of college students who are drawn in to online social network service environments spend countless hours browsing profiles, making connections with new people, and keeping in touch with friends. Faculty and staff who are willing to explore this world can gain insight into how current students engage with peers and with the world. ELI challenges educators to identify what students find so compelling about social networking environments and incorporate those elements into teaching and learning (ELI, 2007a).

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\(^2\) Education related topics include: “college or college planning; learning outside of school; news; careers or jobs; politics, ideas, religion or morals; and schoolwork” (2007, p. 1).
OSNSs and social identity

*When I refuse to listen to how you are different from me, I am refusing to know who you are. But without understanding fully who you are, I will never be able to appreciate precisely how we are more alike than I might have originally supposed* (Alcoff, 2006, p. 6).

Each of the top ten OSNSs (Table 1) provides each user with a personal space within which he or she is able to share selected personal information. At the very least, users are generally required to enter information such as name, gender, and age; however, the accuracy of the information that users provide is usually not verifiable. Beyond the bare minimum, users may share as much about themselves as they desire. Users are generally prompted to selectively share personal information such as is listed in Table 2. Users can post and comment on photos and videos, share likes and dislikes, interests, activities, who their friends are, and the communities with which they are affiliated.

In addition to provision of a prompted scaffold in personal spaces from which users can begin to build representations of themselves to share with others, many social networking websites also provide more open-ended forums for creative self-expression. And often, these forums foster interactivity and enable commenting, tagging, and feedback on the creative content and postings of other users. Current social networking websites commonly provide the means to create and publish personal journals in the form of blogs, photo albums, videos, and other creative expressions of identity. People also can provide insight into who they are
by sharing what they do in the way of the entertainment media they consume, such as multimedia, videos, and music.

Table 2. Prompts for user interests, activities, and information in Orkut’s personal spaces (adapted from Orkut, 2007).

<table>
<thead>
<tr>
<th>General</th>
<th>Interests</th>
</tr>
</thead>
<tbody>
<tr>
<td>*first name:</td>
<td>passions:</td>
</tr>
<tr>
<td>*last name:</td>
<td>sports:</td>
</tr>
<tr>
<td>*gender:</td>
<td>activities:</td>
</tr>
<tr>
<td>relationship status:</td>
<td>books:</td>
</tr>
<tr>
<td>**birth day:</td>
<td>music:</td>
</tr>
<tr>
<td>**birth year:</td>
<td>tv shows:</td>
</tr>
<tr>
<td>city:</td>
<td>movies:</td>
</tr>
<tr>
<td>state:</td>
<td>cuisines:</td>
</tr>
<tr>
<td>zip/postal code:</td>
<td>interested in (relationships):</td>
</tr>
<tr>
<td>*country:</td>
<td>children:</td>
</tr>
<tr>
<td>interested in (relationships):</td>
<td>languages i speak:</td>
</tr>
<tr>
<td></td>
<td>religion:</td>
</tr>
<tr>
<td></td>
<td>humor:</td>
</tr>
<tr>
<td></td>
<td>sexual orientation:</td>
</tr>
<tr>
<td></td>
<td>fashion:</td>
</tr>
<tr>
<td></td>
<td>smoking:</td>
</tr>
<tr>
<td></td>
<td>drinking:</td>
</tr>
<tr>
<td></td>
<td>pets:</td>
</tr>
<tr>
<td></td>
<td>living arrangements:</td>
</tr>
<tr>
<td></td>
<td>hometown:</td>
</tr>
<tr>
<td></td>
<td>webpage:</td>
</tr>
<tr>
<td></td>
<td>about me:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>email address(es):</td>
<td>headline:</td>
</tr>
<tr>
<td>IM username(s):</td>
<td>first thing you will notice about me:</td>
</tr>
<tr>
<td>home phone:</td>
<td>height:</td>
</tr>
<tr>
<td>cell phone:</td>
<td>eye color:</td>
</tr>
<tr>
<td>address:</td>
<td>hair color:</td>
</tr>
<tr>
<td></td>
<td>build:</td>
</tr>
<tr>
<td></td>
<td>body art:</td>
</tr>
<tr>
<td></td>
<td>looks:</td>
</tr>
<tr>
<td></td>
<td>best feature:</td>
</tr>
<tr>
<td></td>
<td>turn ons:</td>
</tr>
<tr>
<td></td>
<td>turn offs:</td>
</tr>
<tr>
<td></td>
<td>my idea of a perfect first date:</td>
</tr>
<tr>
<td></td>
<td>from my past relationships i learned:</td>
</tr>
<tr>
<td></td>
<td>five things i can't live without:</td>
</tr>
<tr>
<td></td>
<td>in my bedroom you will find:</td>
</tr>
<tr>
<td></td>
<td>ideal match:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Professional</th>
<th>Profile Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>education:</td>
<td>Photo Album</td>
</tr>
<tr>
<td>high school:</td>
<td>Video Album</td>
</tr>
<tr>
<td>college/university:</td>
<td>Scrapbook</td>
</tr>
<tr>
<td>major:</td>
<td>Messages</td>
</tr>
<tr>
<td>degree:</td>
<td>Friends (my rankings)</td>
</tr>
<tr>
<td>year:</td>
<td>• best friends - good friends - friends - haven't met</td>
</tr>
<tr>
<td>occupation:</td>
<td>• i'm a fan</td>
</tr>
<tr>
<td>industry:</td>
<td>• trustworthy - very trustworthy - super trustworthy</td>
</tr>
<tr>
<td>sub industry:</td>
<td>• cool - very cool - super cool</td>
</tr>
<tr>
<td>company webpage:</td>
<td>• sexy - very sexy - super sexy</td>
</tr>
</tbody>
</table>

*(My) Fans
Communities

**required but may be selectively hidden from others
In Facebook, information that a user posts in his or her profile automatically links to others that have posted the same information. For example, a user who has posted a list of his or her favorite books will be able to click on the title of any of those books and see everyone else that has listed the book in their profile. He or she can also narrow down the list to include only those at the same school. Users can see whether their friends are online and available for interaction. They also can receive up-to-the-minute notification of the activities in which their friends are currently participating (Facebook, 2007a).

Online social network services provide a forum within which individuals can make connections with others and explore who they are in the process of building a social identity as college students (ELI, 2007b). Read (2006a) notes that for a student, seeing one’s place in college as a web of social connections has the effect of making it more manageable—effectively decreasing the perceived size of the institution. But exploring one’s identity can lead to problematic consequences if it is done in a public forum (Bugeja, 2006a; ELI, 2007b; Read, 2006a; Read, 2006b; Read & Young, 2006). Facebook, for example, can feel like a private forum even though it is effectively public (ELI, 2007b; Mitrano, 2006a).

Because many of the activities in an online social network service are associated with keeping in touch and sharing with friends, individuals tend to communicate with others and share things as if what they post is not accessible to the rest of the world. Many students prefer to reserve OSNSs for social activities among peers—and resent the intrusion of adults or a formal institutional presence (Aratani, 2008; Silverman, 2007). Young people may not be aware of the public nature of online social network service environments that have open membership. Or they may lack the discretion to present themselves—or their friends—
appropriately (ELI, 2007b). Stories of the consequences of social posturing to appear cool among a group of peers, such as posting photos of a party that included underage alcohol consumption are not uncommon (Bugeja, 2006a; ELI, 2007b; Farrell, 2006). Reports also surface about identity misrepresentation, cyberstalking and harassment (Bugeja, 2006a: Read, 2006b).

Regarding student perceptions of the benefits and drawbacks of OSNSs, Silverman (2007) identified several themes that emerged from a survey and sessions with multiple focus groups (see Table 3). The theme most often expressed by participants was that OSNSs provided them with increased connectivity and a sense of community. Silverman noted that in discussing the drawbacks of OSNSs, participants focused mostly in terms of the ways in which they are able to mitigate the impact of perceived drawbacks. For example students mentioned Facebook’s privacy settings could help prevent stalking.

Table 3. Student perceptions of the benefits and drawbacks of OSNSs (adapted from Silverman, 2007).

<table>
<thead>
<tr>
<th>OSNS Benefits</th>
<th>OSNS Drawbacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSNSs allow students to keep in touch with friends and meet new people</td>
<td>students are somewhat concerned about their safety while online</td>
</tr>
<tr>
<td>OSNSs provide a sense of community</td>
<td>students have mixed feeling about the repercussions of online actions</td>
</tr>
<tr>
<td>OSNSs provide opportunities for entertainment and involvement</td>
<td>can prevent students from completing work and interacting with peers face-to-face</td>
</tr>
<tr>
<td>OSNSs reduce students’ inhibitions and enhances their socialization</td>
<td>students had varied opinions of inappropriate content</td>
</tr>
</tbody>
</table>

Despite the drawbacks, perceived and/or real, associated with OSNSs, there has been growing recognition of the potential positive implications for higher education (Bugeja,
Students can begin making connections with others by joining a college or university Facebook group before they start classes. For example, incoming students are able to learn about and chat with others that will be in the same residence hall. Many students have said that it helps them create bonds before they move in (Farrell, 2006). ELI points out, “Using Facebook, students can build the kinds of connections—with students and in some cases with faculty—that make them feel like they belong and are accepted” (ELI, 2007b, p. 2).

**Summary**

Researchers with the Pew Internet & American Life Project found that in 2006, 95% of millennial generation twelve- to seventeen-year-olds were Internet users (Lenhart & Madden, 2006). A report by the National School Boards Association (2007) indicated that 71% of nine- to seventeen-years olds with Internet access used *online social networking services* (OSNSs) at least weekly. OSNSs enable individuals to share who they are and what they do via online profiles, interact with others, participate in online communities, and create and maintain social networks.

A *social network* comprises the web(s) of connections between an individual and other individuals. Interpersonal connections in social networks may range from very close friendships and family (strong ties) to collegiality to casual acquaintances (weak ties) (Granovetter, 1983). “Social software”, “social networking technologies”, and “online social network services” are but a few of the terms that refer to an evolving genre of technologies that enable individuals to establish, maintain and reinforce social connections. The Pew Internet & American Life Project (Boase, Horrigan, Wellman, & Rainie, 2006) found that the
Internet “is enabling people to maintain existing ties, often to strengthen them, and at times to forge new ties.” And Lenhart, Madden, and Macgill (2007) found that social network users talked with friends face-to-face on a daily basis more often than non-users.

Within OSNSs, students can visualize their place in college as a web of social connections—making a large institution more personal and cognitively manageable (Read, 2006a). There has been growing recognition of the potential benefits for higher education that may be enabled by appropriate leveraging of OSNSs (Bugeja, 2006a; ELI, 2007b; Farrell, 2006; Lemeul, 2006; Read, 2006a; Read, 2006b). In any case, for the foreseeable future, one can expect college students to continue to embrace the use of OSNSs in one form or another. The challenge for educators will be to leverage the ubiquity and popularity of OSNSs to the benefit of the students’ academic and social life as part of the university community.

**Conclusion: Online Social Network Services and the Transition to College**

This final section of this article overlays key aspects of the preceding sections to identify the factors, issues, and implications of the congruence of theory and practice related the transition to college and the social processes that may be fostered by the use of OSNSs. This section also summarizes the factors, issues, and implications that should be accounted for in considerations of the design and implementation of OSNSs to enhance students’ experiences of the transition to college.

Rendón (1993) challenges educators to “determine what institutions can do to develop a model of student learning and development that is more appropriate for the rapidly
changing profile of students entering the academy” (p. 5). Others have noted that the pace of
technological advancement is outpacing the ability of professionals within the academy to
keep up (Silverman, 2007). Although Rendón was referring primarily to an increase in
cultural diversity among entering students, this is only part of the evolution of student
characteristics to which colleges and universities must adapt.

Students can be expected to continue to embrace ever-newer technologies that
facilitate and foster social networking. Some of the important changes in the characteristics
of students negotiating the transition from high school to college are inextricably intertwined
with changes in technology. The question remains: What are the opportunities and challenges
for institutions of higher education to be able to nimbly adapt to changing student
characteristics and technologies?

As pointed out by research from the Pew Internet and American Life Project (Boase,
Horrigan, Wellman, & Rainie, 2006), communication via social networking technology does
not correlate with diminished face-to-face communication; rather there is evidence of a
correlation of communication via social networking technology with a greater amount of
face-to-face communication. OSNSs offer robust means of making, maintaining, and
enhancing connections with others and developing a sense of community and belonging. And
in many ways, OSNSs provide a greater variety of ways for doing so creatively, efficiently,
and effectively than face-to-face environments. This speaks to an obvious opportunity for
colleges and universities to leverage the ubiquity and popularity of OSNSs to help incoming
students deal with the process of separation, encourage involvement, and provide validation,
to enhance their experience of the transition to college.
Student affairs professionals know that in-depth familiarity with student characteristics, perceptions, preferences, and activities, is crucial to their ability to help facilitate student success (Kuh, Kinzie, Schuh, Whitt & Associates, 2005; Pascarella & Terenzini, 2005). Knowledge of student activities and preferences must extend to their online world of communities and communication as well. Silverman offers a succinct observation:

The knowledge of how students operate within OSN(S)s may translate into programs and support services that professionals can use to engage students using online communities as a new venue for programming. It is important for student affairs practitioners to be able to understand and respond to any forms of community and any types of activities that students are engaging in, incorporating them into the educational and developmental experiences of college students (Silverman, 2007, p. 16).

As Wenger advises, “learning cannot be designed: it can only be designed for – that is, facilitated or frustrated” (Wenger, 1998, p. 229). Likewise, an individual’s transition to college cannot be designed; however, student participation in OSNSs should be accounted for in efforts to accommodate and facilitate the transition to and success in college. College students are using OSNSs to create community and connect with others like never before. Most students recognize and enjoy the benefits of participating in OSNSs and are at least somewhat aware of the drawbacks and risks (Silverman, 2007). Student affairs practitioners, educators, and administrators also need to be aware of the drawbacks and risks—not only to avoid potential negative consequences of institutional efforts to use OSNSs to engage
students, but should also be able to educate students regarding risks and consequences of inappropriate behavior in their online activities.

**OSNSs and Separation**

Online social network services can help students manage separation from the social network of family and friends, establish a new network of friends, and develop a sense of belonging in a new environment. OSNSs provide an environment, within which tech-savvy millennials are able to maintain strong ties with others that are at a distance, while at the same time, develop networks of weak ties. As Granovetter (1973, 1983) argues, weak ties— with more casual acquaintances and group members expose students to a greater diversity of people and perspectives and broaden their horizons. New students are able to reduce the perceived size and complexity of the university down to a more manageable conception by maintaining a variety of smaller networks within the university.

**OSNSs and Involvement**

Online social network services also provide a means by which new students can become more involved in the social and intellectual life of the institution. The more academic and social involvement with faculty and peers a student has, the greater quality effort they devote to their learning, and the less likely it is that that student will leave college prior to completion (Tinto, 1993).

OSNSs offer obvious opportunities to address aspects of the indicators of student engagement, as articulated by NSSE (2005). OSNSs offer an alternative, comfortable social forum in which students are exposed to and can interact with students with different racial or
ethnic backgrounds or with different political opinions or values. OSNSs provide ubiquitous venues that can facilitate development of supportive relations among students and their peers.

**OSNSs and Validation**

OSNSs can provide an environment that students can find to be supportive, welcoming, and affirming. Ongoing validation in such a forum can lead to a sense of belonging, feelings of being part of a community, and increased self-confidence and self-esteem. Individuals transitioning into a new environment look for feedback as to their fit and viability in that environment. OSNSs provide ample opportunity for peer validation of newcomers to the community within an environment in which individuals are able to maintain a more complex and multilayered identity that is more conducive to successful adaptation by newcomers (Ellemers and Rink, 2005). The extent to which an individual feels that his or her own identity is validated within a group is directly linked with that individual’s sense of belonging.

**Summary**

The potential usefulness of OSNSs to address issues related to academic engagement is unclear. OSNSs offer a forum within which students may be able to: (1) work collaboratively with other students outside of class; (2) interact with faculty members and advisors, discussing ideas from classes with faculty members outside of class, getting prompt feedback on academic performance, and working with faculty members on research projects; (3) develop supportive relations among students and their peers, faculty members, and
administrative personnel and offices; (4) perceive the institution as an environment that is supportive in ways that help them succeed academically and socially.

Much of the potential for OSNSs to promote academic and intellectual engagement has yet to be fully explored. Although some faculty and staff have reported a degree of success, others see glaring problems with issues such as liability, privacy, and intellectual property (Mitrano, 2006b). Students do recognize the potential advantages of OSNSs to enable them to access important information, and consult with institutional representatives, instructors, and advisors (Silverman, 2007). At present, however, the extent to which OSNSs may provide opportunities for the kinds of interactions with faculty that might promote validation remains to be seen.

In many ways, there is indeed a convergence of the ways in which OSNSs are used with goals of education in terms of personalized experiences and collaboration, as Owen, Grant, Sayers, and Facer (2006) assert. Students are using OSNSs to make connections with other students, and keep in touch with close friends. OSNSs enable students to realize a more directly perceivable mapping of their connectedness with an assortment of smaller, more cognitively manageable personal networks that are in turn interconnected with others throughout the university. Students are able to express their developing identities as college students, while at the same time, maintain and express their own personal nexus of closely-held identities.

Interestingly, student use of OSNSs to become involved in the social life of the university and begin to develop a sense of connectedness and belonging has occurred informally and spontaneously. As a whole, colleges and universities are still in the early
stages of exploring the potential for OSNSs to augment existing early outreach programs, orientation programs, bridge programs, learning communities, and first-year seminars to enhance the transition to college. Data are far too sparse at this point to provide any evidence as to whether colleges and universities will be able to successfully formalize efforts to leverage the ubiquity and popularity of OSNSs to positively impact students’ transition and retention. While there is obvious potential for OSNSs to be able to influence the processes of separation, as well as involvement and validation within the social realm of college life, answers to questions regarding the utility of OSNSs in regard to academics are rather more elusive.

Students are using OSNSs to interact with and sustain networks of friends and peers. Interactions with peer groups have the most powerful effect on virtually all aspects of a student’s educational experience (Astin, 1999). There is not yet an adequate body of evidence indicating whether—or in what form—colleges and universities might be able to formalize the use of OSNSs to enhance the transition to college for either students as a whole, let alone sub-groups, such as ethnic minority students. One thing does seem clear at this point, however; OSNSs are already influencing the transition experience of the vast majority of incoming millennial students and will continue to do so in one form or another for the foreseeable future.

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CHAPTER 3: EXPLORING THE POTENTIAL OF ONLINE SOCIAL NETWORK SERVICES TO FACILITATE ETHNIC MINORITY STUDENTS’ TRANSITION TO COLLEGE: A CASE STUDY

A paper to be submitted to New Directions for Student Services

Rex Heer and Constance P. Hargrave

Abstract

Students who are transitioning from high school to college must be able to negotiate the social and academic aspects of the transition process. As a result of precollege experiences, compared to their White counterparts, millennial generation ethnic minority students are more likely to be less prepared for the processes associated with the transition to college, and must traverse wider social and academic transitional gaps. This qualitative case study examines how a group of first-year ethnic minority college students at a large Midwestern predominantly White institution used an online social network service (OSNS) to deal with the social aspects of the transition to college and differences in the academic demands of high school and college.

Introduction

Most high school students who plan to attend college face a period of change unlike any they have previously encountered. The nature of an individual’s experience of the transition to college is the net result of his or her negotiation of both of two major interdependent aspects of life as a college student. One aspect is associated with differences between high school and college in the amount and nature of effort required to meet the
academic demands. The second major aspect of transition involves moving away from family, friends, and a familiar environment, growing new networks of friends, acclimating to a new environment, and developing a sense of belonging in the social life of the college community. To successfully adapt to life as a college student, individuals must manage both aspects of the transition (Tinto & Goodsell, 1993; Pascarella & Terenzini, 2005; Silverman, 2007).

There are a variety of factors that can affect the relative ease or difficulty with which individuals are able to transition to college. This research study focused on a group of first-year ethnic minority students’ transition to college. More specifically, this case study explored the students’ use of an online social networking service to negotiate the transition to college (Figure 3).

![Figure 3. Concept map of the relationships of key study elements.](image-url)
Often referred to as the millennials, the current generation of high school and college students is characterized by tendencies and preferences that correlate with the rapidly evolving social technologies they have embraced. In particular, online social network services (OSNSs) provide a forum within which individuals can make connections with others and explore and express who they are in relation to others and the social groups in which they participate.

In the last 60 years, great strides (both legally and socially) have been made to increase the matriculation of ethnic minority students in higher education. However, ethnic minority students as a whole do not enroll in or graduate from college at the same level as their White counterparts. Socio-economic factors, pre-college preparation, and institutional racism are barriers that directly impede ethnic minority students’ pursuit of and persistence in obtaining a college degree. Similar to White millennials, ethnic minority students actively use OSNS to facilitate social interactions. The popularity of OSNS among millennials, especially ethnic minority millennials, affords colleges and universities a unique context in which to help students manage the processes associated with the transition to college by leveraging the ubiquity and features of OSNSs that millennial generation students find so engaging.

The intent of this study was to explore the potential of OSNSs to help students think about and articulate social identity, build and maintain community connections, and successfully navigate the transition to life as college students. Specifically, this article describes a qualitative case study that was implemented to understand the means, methods,
and extent to which a group of first-semester ethnic minority students at a PWI used an OSNS to negotiate the transition to college.

**Key terms and related concepts**

Several terms used in this study have varying context-specific uses and connotations. Appendix C provides working definitions of key terms and concepts related to (1) identity, community and social networks, (2) traditionally marginalized groups, (3) demographics, (4) transition to college, and (5) technologies that enable social networking.

**Background**

In this section, a brief review of the relevant literature is presented to provide a background for the study. The following sections are included: transition to college and social learning theory; race, ethnicity, and preparation for college; and OSNSs and higher education.

**Transition to college and social learning theory**

The interplay of three critical processes impact students’ experiences of the transition from high school to college: separation, involvement, and validation (Astin, 1982; Astin, 1999; Jalomo & Rendon, 1993; Rendon, 1994; Redon & Jalomo, 1995; Tinto, 1993). For most first-year students the college transition involves leaving familiar day-to-day realities and the structured life of home and high school and moving to a new life as a college student with newfound autonomy as well as increased personal responsibilities. Individual differences in the transition experience can be linked to differences in socio-economic status,
family history of attending college, cultural values, and academic performance in high school (Jalomo & Rendón, 2004; Rendón, Garcia, & Person, 2004; Tinto, 1993).

Student persistence is heightened by participating, making connections, interacting, and being involved—both socially and academically in college life (Astin 1984; Pascarella & Terenzini, 2005; Tinto, 1993). Engagement in the academic and social life of the community may include activities such as participation in group projects, out of class interaction with faculty or mentor(s), membership in a learning community or informal study group(s), special interest clubs, campus organizations, ethnic-oriented activities, and athletic and cultural events.

Separation, involvement, and validation are social processes that are crucial to students’ experience of the transition to college (Jalomo & Rendón, 2004). They are processes of individual perceptual and conceptual assimilation (experiencing and making meaning of one’s social and physical environment) and accommodation (adjusting patterns of behavior to or coping with new or changing conditions in the environment) (Piaget & Inhelder, 1966). This perspective acknowledges that an individual’s lived reality emanates from meanings that he or she makes from previous experiences within a social context—and from which he or she comes to experience and make meaning of the present. Situative theories (Barab & Duffy, 1998; Lave, 1985, 1991, 1997; Lave & Wenger, 1991) emphasize the notion that cognition and meaning as well as individual identities are reciprocally socially and culturally constructed. As Lewin (1939) proclaimed, one’s relation to and status within one’s social group are the most important factors for one’s feelings of security or insecurity.
Feedback is an integral component of any learning process. Feedback from other community members that is supportive and lets students know that they are doing well and on the path to success is equally as important as feedback that helps students recognize that they are getting off track and points them in the right direction (Gagne, 1968). A college environment that a student finds to be unsupportive, unwelcoming, and non-affirming, can lead to anxiety, isolation, alienation, self-doubt, and poor self-image (Jalomo & Rendón, 2004). On the other hand, positive feedback regarding progress from respected others can lead to pride in academic accomplishments, and increased self-confidence and self-esteem.

**Race, ethnicity, and preparation for college**

As a result of pre-college experiences, some individuals have been preconditioned for the social and academic aspects of the transition to college, while others are less prepared, face more unknowns and must traverse a wider social and/or academic transitional gap. Unfortunately, ethnic minority students are more likely than their White counterparts to fall among the latter. For example, discrepancies in pre-college experiences between ethnic minorities and the White majority in predominantly White institutions (PWIs) are reflected in disparities in institutional skills (e.g., knowing where to go, what needs to be done, and how to do it), knowledge, attitudes, perspectives, norms, and realities (Rendón, Garcia, & Person, 2004; Tinto, 1993). Attendance in resource-poor schools, participation in a less comprehensive and demanding high-school curriculum, low expectations for success, and growing up in a culture of poverty, a single-parent background, and little or no family history of postsecondary education are among inhibiting pre-college experiences that disproportionately affect Blacks and Latinos, (Jalomo & Rendón, 2004; Rendón, Garcia, &
Person, 2004). Colleges and universities throughout the United States have implemented a variety of efforts specifically to help students who have pre-college backgrounds and experiences that may lead to a less-than-smooth transition to college, such as the federally funded TRIO programs (Astin, 1982; Astin, 1999; Jalomo & Rendón, 2004; Pascarella & Terenzini, 2005; Rendón, 1993; Rendón, 1994; Rendón & Jalomo, 1995; Tinto, 1993). In spite of those efforts, there is still disparity in academic success in terms of graduation rates between Whites and ethnic minorities. This has been the case at Iowa State University (Table 4). These numbers do not necessarily result exclusively from differences in the ease of transition to life as a college student. Nonetheless, the level of disparity in retention rates is an obvious concern to institutional professionals who strive to assure widespread student success.

Regardless of retention and graduation data, institutional demographics of the student population provide some insight into one potential source of additional challenges for ethnic minority students at this particular university. In 2006, African Americans accounted for 2.7% of the student population at Iowa State, and Hispanics accounted for 2.5% (Iowa State University Office of Institutional Research, 2006). This presents a context in which African American and Hispanic students are visibly in the minority. (At least it would be very consciously noticeable to the student, who identifies as a member of an ethnic group that comprises only a small fraction of the student body.) If learning is acknowledged as an inherently social activity, that individual could be at a disadvantage insofar as he or she would have less opportunity than his or her classmates for feedback from and interaction with someone, whose background, worldview, and previous experiences are similar to his or
her own. Moreover, when the White students do not interact with their minority classmates, it
further exacerbates feelings of isolation and not belonging at the university.

Table 4. Retention and Graduation Rates by Race/Ethnicity for Freshmen by entering class
(adapted from Iowa State University Office of Institutional Research, 2006, p. 55).

<table>
<thead>
<tr>
<th>Group</th>
<th>1-Year Retention Rate</th>
<th>4-Year Graduation Rate</th>
<th>6-Year Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Entering Class</td>
<td>Entering Class</td>
<td>Entering Class</td>
</tr>
<tr>
<td>African American</td>
<td>86.1%</td>
<td>79.0%</td>
<td>75.7%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>88.2%</td>
<td>83.3%</td>
<td>86.4%</td>
</tr>
<tr>
<td>White</td>
<td>84.9%</td>
<td>85.8%</td>
<td>83.7%</td>
</tr>
</tbody>
</table>

Racism is an additional factor that differentially affects students’ experience. In a
survey of 831 freshmen at a predominantly White, doctoral-granting Midwestern institution,
Nora and Cabrera (1996) found that perceptions of racism and alienation were reported
significantly more frequently by ethnic minorities than nonminorities. They maintain that
students’ “experiences of racism . . . compound or augment negative effects associated with
other stressors . . . and heighten feelings of not belonging at the institution” (Nora & Cabrera
best predictor of student satisfaction with college is the degree to which they perceive the
college environment to be supportive of their academic and social needs” (NSSE, 2005, p.
12). NSSE also found that African American students as a group are among the least satisfied
with their college experiences.
OSNSs and higher education

Use of OSNSs by college students is widespread, with well over 90% of students at many colleges and universities having created an account in Facebook by the end of their freshman year (Lenhart, Madden, Macgill, & Smith, 2007; Owen, Grant, Sayers, & Facer, 2006; Silverman, 2007; Stutzman, 2006). Millennial students are using OSNSs to grow and maintain networks of friends and acquaintances. As a result, current students are more widely connected to others in ways that were unimaginable until very recently.

The types of social and academic engagement highlighted in NSSE’s five benchmarks of effective educational practice are intriguingly compatible with the nature of social engagement afforded within OSNSs. OSNSs have already become a significant means by which students establish and maintain social connections with other students within their institution (Educause Learning Initiative [ELI], 2007, 2008; Lenhart, Madden, Macgill, & Smith, 2007, Silverman, 2007). Additionally, OSNSs provide a forum within which students may engage in activities that have the potential to promote: (a) active and collaborative learning; (b) interactions with faculty members; (c) enriching educational experiences; and, especially, (d) a supportive campus environment. The question that remains is: can institutions of higher education purposefully use OSNSs to enhance students’ experience of the academic and social transition to college by addressing issues of separation, validation, and involvement?

Statement of the Problem

Despite the widespread efforts to increase ethnic minority students’ participation in and completion of college, there continues to be a significant difference in graduation rates
between ethnic minority and White students. The extent to which OSNSs may help students to feel that the college environment is supportive *academically* is largely unexplored. In recognition of the ubiquity and engaging nature of online social networks, student affairs professionals have begun to explore the potential of OSNSs to augment existing efforts to enhance the transition to college (Silverman, 2007). However, despite isolated attempts (Lemeul, 2006), there is scant evidence regarding the potential use of OSNSs by institutions of higher education to enhance minority students’ experience of the transition to college.

**Research Question**

Based on the inherent interconnectedness of the development and validation of social identity as a college student with a sense of belonging and community, this study ultimately responds to a single research question:

*How does a group of first-year ethnic minority college students at a large Midwestern predominantly White institution use an online social networking service to address (a) the social aspects of the transition to college and the processes of separation, involvement, and validation; and (b) the differences between high school and college in the amount and nature of effort required to meet the academic demands?*

**Research Design**

To address the research question, a qualitative collective case study was conducted. As such, the intent was to examine and describe a specific instance of an innovation that may heuristically illuminate a more general problem (Merriam, 1988; Stake, 2000). In a case
study, narrative data are collected to understand a phenomenon. In order to better understand the larger issues involved, collective case studies focus on participants as a group rather than as individual cases (Stake, 1995; Stake, 2000). Qualitative research involves an interpretive approach wherein phenomena are studied in their natural contexts in order to understand the experience of and associated meanings made by the participants (Denzin & Lincoln, 2000; Merriam, 1988; Stake, 1995).

In this study, the case was a group of ethnic-minority college freshmen’s use of an OSNS to facilitate their transition to college. The innovation was the purposeful semi-structured implementation of the OSNS in an educational setting. The data for this case study were the participants’ comments in online community discussion forums and information provided in their personal spaces within the OSNS, Orkut. Orkut’s personal spaces provided a framework within which the participants could express their identities, experiences, and feelings; seek and offer support among friends; and build connections with friends and acquaintances. The community space provided a forum within which participants could interact and respond to open-ended questions and discussion topics.

Qualitative data analysis methods were used to understand how participants used the OSNS to address their experience of the transition to college. In acknowledgement of the underpinnings of social learning theory and the interdependence of social identity and community, the case was the students’ collective use of the OSNS. That is, individual data were analyzed as parts of a whole. I was interested in the students’ participation as a means to understand the experience of the group—not of the individuals.
Case Study Methods

Participants

Participants in this study included nine first-semester students, who had participated in the Science Bound Program in high school and were enrolled in the Fall Semester, 2006 Science Bound freshman orientation seminar. A summary of Science Bound is provided in Appendix E. In addition, one participant was a senior class peer mentor, who also had participated in the Science Bound Program as a high school student. Six of the student participants were female and three were male. At the beginning of the semester, they ranged in age from seventeen to nineteen. Four participants identified their ethnicity as African American, three identified as Hispanic/ Latino, and three as multi-ethnic (Appendix M).

The group of student participants in this case study are not representative of first-year students as a whole, or even of the category of first-year ethnic minority students—due at least in part to participation in the high school Science Bound program. As Science Bound participants, these individuals already had interpersonal connections, shared an orientation seminar, and received the benefit of established connections with program faculty and professional staff, who endeavored to ensure their success. This group of students was selected for participation in the case study because of their established participation in a program that directly addresses the challenges associated with ethnic minority students’ transition to college.

Context of the study

Leading up to implementation of this case study, I evaluated several existing OSNSs for their suitability based on several factors (Appendix F). Orkut was selected for use in this
case study because it met all of the functional criteria, had very minimal advertising (i.e., text links only), and did not have the negative press associated with Facebook and MySpace. The Orkut online environment included two major components: personal spaces and community spaces (Appendix I). The personal spaces provided a framework within which the participants could express their identities, experiences, and feelings; seek and offer support among friends; and build connections with friends and acquaintances. The community spaces provided a forum within which participants could interact and respond to open-ended questions and discussion topics.

**Participant researcher**

As the primary researcher for this study, I interacted with study participants both directly face-to-face and asynchronously in the OSNS. The implementation of the online environment, manipulation of the semi-structured discussions therein, and interpretations of the results were inherently subjected to my perceptions, biases, and perspectives. Student participation in the OSNS was also subject to their perceptions and biases toward me. OSNSs are widely regarded by student users as primarily social spaces within which they connect with friends—and the use of an OSNS to interact with a much older, White, male researcher could potentially skew the results in ways that are difficult to reliably account for.

**Procedures**

**The seminar**

All student participants in the study were enrolled in a first-year seminar that is required of freshmen participants in the university’s Science Bound program. Most of the
participants did not complete a high school to college bridge program. The seminar was facilitated by a program specialist and met face-to-face once a week, Mondays from 4:10 to 5:00 p.m. throughout the fall semester. Attendance varied from week to week. The seminar provided a forum for participants to discuss issues and concerns, develop academic skills, and learn about what it takes to be a successful college student.

**Initial meeting and role of participant researcher**

I first met with most of the participants following their second meeting of the semester to introduce myself, talk with them about the research project, and invite them to participate. After I answered their questions, all students and the peer mentor signed letters of consent to participate in the research. I then asked participants to create an account in Orkut and join an Orkut community—named “science bound” that was created specifically for this study. I encouraged study participants to respond to generic prompts for personal information that were built in to Orkut. They were assured that their name was the only information that was required; and any additional information they elected to provide was entirely optional. They were also asked to participate in weekly online discussions on selected topics within the community spaces.

I met face-to-face with the group of the freshman student participants following their weekly orientation seminar for ten weeks. The original intended purpose of these face-to-face meetings was for me to introduce the students to the online personal space and community space, to answer their questions, and help them with the technology. However, as participants generally reported few difficulties with the technology, and seldom had questions, the weekly meetings were useful, nonetheless, to the extent that they served as a reminder that they had
agreed to participate regularly in the online environment—and that a new discussion topic had been posted. I maintained logs of all participation in the community space and archived records of individual self-expression in the personal spaces to provide data related to social identity and community. In all logs and records, I replaced individual identifiers with code names to ensure confidentiality.

**Discussion topics**

Discussion topics posted by the moderator were generally written in the form of questions, but participants were also encouraged to create their own discussion topics. The questions and discussion topics posted by the moderator in the community space were framed within the general categories of academics, social life, and university-based connections (Table 5). These prompts were formulated to encourage students to reflect on and reveal (a) how they were dealing with the social aspects of the transition to college and the processes of separation, involvement, and validation; and (b) the differences between high school and college in the amount and nature of effort required to meet the academic demands.

To participate in any of the discussions, community members entered the discussions by clicking on the topic name in an index of posted topics. Once within a specific discussion, participants typed their responses. When a participant finished typing a response, he or she could click the “submit” button—at which time, the posting was added to the discussion, automatically time-stamped, and visible to all community members.
Table 5. Discussion topics posted by the moderator.

**Category: Academics**—how students felt about classes, studying, choice & fit of major

- **Week 1**  How are your classes going?
- **Week 3**  Adjusting: So you are probably starting to get a better feel for what it is like to be a college student. How do you feel about life as a student at ISU so far? Or what did you expect -- and in what ways do things differ from what you expected?
- **Week 4**  “ins and outs”: How do you learn the “ins and outs” of the university—like figuring out where you need to go and what you need to do? And who do you talk to if you need some advice?
- **Week 5**  like and dislike: So far, what do you like or dislike about being a college student?
- **Week 7**  adapting to academic life: Without using names, tell us about someone you know that is not adapting as well to academic life at the university. Describe the signs -- or the reasons: Are they just blowing things off? Partying more than they should? Not studying? Drinking too much? Not adapting socially? Not motivated? Anything else?

**Category: University-based connections**—attendance and/or participation in extra-curricular activities, sporting events, intramurals, clubs, etc.; also, connections with faculty

- **Week 2**  Cyclone stuff: Have any of you bought any ISU Cyclone clothing or other Cyclone stuff?
- **Week 6**  best and worst instructors: How do you feel about your relationships with faculty at the university? Tell us about your favorite or best professor/instructor and your least favorite or worst professor/instructor.

**Category: Social (personal life)**—friends/living arrangements/recreation (i.e. parties, etc.)

- **Week 8**  Making Connections: How do you feel about your relationships with other students at the university; and what is it that makes the difference between those you connect with easily versus those that you don’t really connect with at all
- **Week 9**  free time: What do you do in your free time? And what would you like to be doing if you had more free time?
- **Week 10**  social networking: Do you participate in any other social networking sites, like Facebook or mySpace? If so, which one(s), how do you use them, and how much time per week do you spend?
Compiling the data

All discussions were available for ongoing participation from the time they were posted until three weeks after the posting of the final topic. Throughout the semester, I maintained a weekly journal of my reflections on the discussion postings (Appendix K). After the end of the semester, all discussion postings and information in participants’ personal spaces were copied into spreadsheets for analysis.

Data Analysis

Personal information

Data gleaned from participants’ personal spaces were analyzed in two ways. First, counts of responses by individuals and by information type were used to understand the extent to which participants voluntarily provided personal information within the OSNS. Second, information in participants’ personal spaces provided the collective demographic data for the study. Personal information was used both to understand the backgrounds of the participants as a group, as well as to help contextualize the contributions of individual participants in the community discussions.

Community discussions

Discussion postings by student participants were analyzed with regard to the research question, “how does a group of first-year ethnic minority college students at a large Midwestern predominantly White institution use an online social networking service to address (a) the social aspects of the transition to college and the processes of separation, involvement, and validation; and (b) the differences between high school and college in the
amount and nature of effort required to meet the academic demands?” Although participants were not directly prompted with, for example, the words “separation”, “validation”, “involvement”, or “academics”, these themes were nonetheless evident in their responses.

**Identification of discussion themes**

In accord with a review of the literature relevant to the research question, eight distinct recurring themes were identified in the logs of postings in the Orkut community space discussions: (1) separation, (2) social involvement, (3) academic involvement, (4) social identity, (5) community, (6) transitioning, (7) personal life, and (8) social networking (Table 6). The theoretical underpinnings of the eight themes are described in Appendix L.

Table 6. Relationship of discussion themes to specific references in the research question.

<table>
<thead>
<tr>
<th>Research question reference</th>
<th>Data analysis theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>separation</td>
<td>1. separation</td>
</tr>
<tr>
<td>involvement and academic demands</td>
<td>2. social involvement</td>
</tr>
<tr>
<td>validation</td>
<td>3. academic involvement</td>
</tr>
<tr>
<td>transition to college</td>
<td>4. social identity</td>
</tr>
<tr>
<td>social network</td>
<td>5. community</td>
</tr>
<tr>
<td></td>
<td>6. transitioning</td>
</tr>
<tr>
<td></td>
<td>7. personal life</td>
</tr>
<tr>
<td></td>
<td>8. social networking</td>
</tr>
</tbody>
</table>

Postings were subsequently coded according to fit with the following eight themes.

1. *Separation:* mention of missing or dealing with the effects of separation from pre-college friends, family, or lifestyle.
2. *Social involvement*: indication of attendance and/or participation in organized university-related extra-curricular activities, sporting events, intramurals, clubs, etc.

3. *Academic involvement*: expression of how participants felt about their classes, grades, subjects, studying, level of challenge, choice and fit of major.

4. Social identity: evidence of participants thinking about and articulating their evolving identities as college students.

5. *Community*: indications of (presence or lack of) a sense of connectedness, belonging, mutuality, validation within the university community and connections with faculty.

6. *Transitioning*: references to what participants see as the challenges or rewards of transitioning to life as a college student.


8. *Social networking*: indication of active development and maintenance of a web of social connections.

Although each discussion topic was designed to focus on academic, social life, or university-based connections, the comments provided by the students were not exclusively limited to one specific aspect of the participants’ experience. For example, in response to the question, “*how are your classes going?*” Tara replied “my classes are going pretty good...i am having a little trouble with math and spanish but im getting a study group together so
hopefully it will help. I just have to work on managing my time better;)”³. Tara’s comments were coded as follows:

- **Academic involvement**: “my classes are going pretty good...i am having a little trouble with math and spanish . . .”

- **Social identity**: “... im getting a study group together so hopefully it will help. i just have to work on managing my time better;)

- **Community**: “... im getting a study group together . . .”

**Data Analysis Methods**

All data were copied into a spreadsheet and were initially organized by discussion topic—with participant postings in each topic in chronological order. A separate spreadsheet organized postings by participant. This provided counts of the numbers of postings by topic as well as by individual.

Efforts to identify keywords as a means to analyze the content of participant postings provided only very sparse data. However, references to participant experiences and perceptions revealed several recurring themes that were related to the research question. Subsequently, I went through all of the postings in the spreadsheet that was organized by topic, and highlighted all passages that I determined to be associated with the first theme. Then, in a copy of that spreadsheet that had no highlights, I went through again—this time

³ Note: The moderator deliberately used all lower case letters in discussion topic postings—to conform to verbal directives that postings need not be formal. Students were told not to be concerned about spelling, grammar, or punctuation; rather, they were encouraged to submit their postings in the same manner they would if they were communicating with friends and acquaintances via other familiar technologies, such as text or instant messaging.
highlighting passages associated with theme two. I then followed the same procedure for each of the remaining themes.

The spreadsheet that was organized by individual participants allowed for data triangulation. Each individual had his or her own style of discourse. Thus, analysis of the data by individual provided an alternative way of contextualization and emergence of themes from within their postings. Also, a period of several days elapsed before I was able to delve into the data in this format, providing for a fresh start. Themes in the data that were organized by individual were highlighted one by one and compiled in the same manner as the data that was organized by topic.

Results of the compilations of discussion themes by individual were then compared with the results of the compilations of discussion themes by topic. Identification of themes evident in participant posting was substantially similar between the two organizational formats.

Results

The research question that this collective case study was designed to address was:

*How does a group of first-year ethnic minority college students at a large Midwestern predominantly White institution use an online social networking service to address (a) the social aspects of the transition to college and the processes of separation, involvement, and validation; and (b) the differences between high school and college in the amount and nature of effort required to meet the academic demands?*
In answering the research question, it is relevant to report that the participants *did* use the OSNS to articulate their social transition to college and the differences in their academic experience between high school and college. This is important because, to address any issue, one must express one’s perception of the situation. The data indicate that the participants used Orkut to begin this process. The participants readily adapted to the Orkut environment. They provided information regarding their social identities in their personal spaces. And although participation in the community spaces was not free flowing and spontaneous, participant postings in the discussion topics nonetheless yielded relevant results.

**Participant use of personal spaces**

All ten participants voluntarily provided information about themselves in the personal spaces. For example, they shared personal information such as, relationship status, ethnicity, religion, fashion preferences, living arrangements, and languages spoken. In all, a total of 73 of the Orkut multiple-choice and open-ended prompts for different types of personal information were responded to by one or more participants. Voluntary responses to multiple-choice prompts revealed:

- Four identified their relationship status as single, four others as committed, and two did not respond.
- All ten respondents reported languages spoken as English (U.S.), two also identified Spanish, and one identified French.
- Regarding smoking, seven reported no, one reported trying to quit, and two did not respond.
• Religion was identified as Christian/Other by five participants, Christian/Catholic by two individuals, while three provided no response.

• Seven participants reported living with roommate(s), two reported a combination of alone and with roommate(s), and one reported with roommate(s) and with parents.

• Regarding drinking [alcohol], two individuals reported drinking socially, four reported no drinking, and four did not respond.

The multiple-choice format prompts were among the categories with the greatest number of participant responses. All ten participants (nine students and one peer mentor) provided responses to the multiple-choice prompts: living; ethnicity; languages i speak; and state [of residence]. The majority of participants also took the time to respond to a variety of open-ended prompts, such as: hometown; passions; sports; activities; books; music; tv shows; movies; and cuisines. Seven of the ten participants provided profile photos.

Participants readily expressed their personal interests, characteristics, and other information in the online environment. Most participants filled out their profiles in their personal spaces with generous amounts of information about themselves (see Appendix M); with all but one responding to at least 19 prompts for personal information (Table 7).

Table 7. Number of personal profile category responses by participant.

<table>
<thead>
<tr>
<th>Tara</th>
<th>Derrick</th>
<th>Sahar</th>
<th>Angela</th>
<th>Jason</th>
<th>William</th>
<th>Carolina</th>
<th>Venus</th>
<th>Christina</th>
<th>Alison</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>50</td>
<td>24</td>
<td>48</td>
<td>28</td>
<td>26</td>
<td>56</td>
<td>41</td>
<td>19</td>
<td>9</td>
</tr>
</tbody>
</table>
Carolina, the peer mentor, provided responses to 56 personal profile categories. Alison provided responses to only nine categories. The average number of responses to personal profile categories was 33. Categories of information to which the participants responded revealed trends in what this particular group of students felt were important—or at least shareable—aspects of their identities (Table 8).

Table 8. Numbers of individual responses to personal profile categories.
Orkut allows all members to invite any other member to be a “friend”. The other member (invitee) must then confirm the status as a friend. Upon confirmation, friends’ photos—and direct links to all of an individual’s friends are posted in that individual’s personal space. Other than the moderator, none of the participants identified all of the other participants as friends (Figure 4). One participant identified eight others as friends, and one participant did not identify any other friends. The student who entered only minimal personal information was also the one that had the fewest postings in the OSNS community space and did not identify any of the other participants as friend.

Figure 4. Participant friend connections in Orkut
In summary, the data indicate the participants readily posted personal information for others to see. And most (nine of ten) participants were willing to establish personal connections with others in the community. Personal information was provided in response to optional, generic prompts that were common to all personal spaces within Orkut. Therefore, data from the personal spaces was not designed to address the research question directly. Yet the finding that the participants did indeed use the personal spaces was important. It enabled participants to learn more about each other—and to establish personal connections between and among group members. The information provided in their personal spaces also served as a framework for understanding their participation in the community discussions.

**Participant use of the community space**

There were a total of eleven topics in the community discussion space. The moderator posted a new discussion topic each week for ten weeks; and a student participant posted one additional topic. Participants contributed a total of 74 individual discussion postings in which they discussed issues such as transitioning from high school to college, social identity, community, and academics. The number of postings per topic ranged from two to fifteen. There were only two postings in the topic initiated by the student participant. The most active discussion—about how their classes were going—had fifteen postings. The topic about making connections had the fewest postings of any of the discussions initiated by the moderator with a total of four.

Derrick had the greatest number of discussion postings, with eleven. Alison had the fewest, with two. The median number of postings by participant was eight (Table 9).
Table 9. Number of community discussion postings by participant.

<table>
<thead>
<tr>
<th>Student</th>
<th>Derrick</th>
<th>Sahar</th>
<th>Angela</th>
<th>Jason</th>
<th>William</th>
<th>Carolina</th>
<th>Venus</th>
<th>Christina</th>
<th>Alison</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
<td>11</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>10</td>
<td>3</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

Student participant postings were coded for fit with the eight themes (Figure 5). Within the 74 total postings, 38 had passages that were coded for transitioning and 34 were related to social identity. Thirty-two of the postings included comments related to academic involvement and 26 referred to community. Comments related to separation occurred in only eight of the 74 postings.

![Figure 5](image-url)

Figure 5. Total number of postings by discussion theme codes.

Despite differences in total numbers of postings by individuals, the distributions of individual participants’ postings by discussion theme were remarkably similar (Figure 6). Although the distributions of individual participants postings by discussion theme codes are similar, it should be noted that, in context, the tenor of their individual postings revealed both similarities as well as differences in their experiences of the transition to college and helps address the research question.
Figure 6. Individual participant postings by discussion theme codes.

Themes from participant discussion postings

Separation

Eight postings dealt in one way or another with the effects of separation. Some of them referred to missing home and family and pre-college friends. Discussing adjusting to life as a college student, Angela said, “... college life in general is okay, lots of people are really friendly and are interested in getting to know you. Still miss the family, even though
I'm only 30 minutes from home :(" However, three weeks later, Angela pointed out, “I really like the freedom. If you tell your parents you’re staying on campus for the weekend they really are none the wiser that maybe you went on a road trip to Minnesota to go gambling with your friends, or maybe you just chose to stay with your boyfriend one weekend. They have no idea and probably will never know.”

Other participants referred to the newfound freedom and independence that comes with being away from home and family. Sahar mentioned “...I do like the fact that in a way I’m on my own away from my parents which is what I always wanted.”

**Social involvement**

Postings that referred to involvement, attendance at or participation in organized university-related extra-curricular activities, sporting events, intramurals, clubs, etc. were not frequent. They mostly came in response to direct questions regarding either being a fan of the university’s athletic programs or what they do in their free time. Tara noted, “i’ve bought a ton of isu clothing...probably more than i should have. i got sweatshirts, t-shirts, hats etc. they're nice and comfy to wear around campus..especially when you have an early class and don't really feel like dressing up:)

Derrick, one of three that mentioned participation in exercise or sports, said that “[in my free time] I usually go the the Rec and play basketball or lift weights.”

It is worth noting that this group of students did not use Orkut for social interaction. In contrast, social interaction is the primary form of student participation in other OSNSs such as Facebook. Of course, this group of students did not have other friends and acquaintances in Orkut. So although the functionality of Orkut was not unfamiliar, it did not
have the critical mass of participation for participants to regard it as a *social* networking environment.

**Academic involvement**

The first topic that was posted in the community space was in the form of a simple question, “how are your classes going?” Not surprisingly, all of the responses had something to do with academics.

Comments were almost all positive. William wrote “My classes are going really well. i like my schedule a lot and i like my instructors!!”

Jason’s posting was typical: “My classes have gone pretty good. most aren't too hard except for calc. Other than that They have been ok.”

In several instances, reflections on academics changed somewhat over the course of the semester. Venus’s first comments were, “My classes are going pretty good. I don't like English at all but I do my work, as a matter of fact I just wrote my first paper! I think I did good on it. My Chemistry is the worst class so far. I had an exam and I didn't do as good as I thought I was. So now I'm constantly studying my chemistry.” She followed that up with a subsequent posting, “My classes are going so much better! I changed up my studying habits and started to focus a little more in class. I beginning to become comfortable and like this whole college thing!”

Angela reflected, “its hard just getting use to all of the effort that college requires you to put forth for all of your classes.” Sahar did not mince words and came right out and said, “I dislike the academic part of college.”
Not all references to academics were in response to prompting on that topic. The intent of the topic about what participants do in their free time was to get an idea of what they did when they weren’t in class, studying, or doing homework. However, most of the responses stated that, among other things, they usually do their homework in their free time.

**Social identity**

Most participant comments that related to social identity were reflections on the ways in which they were adapting to life as college students. Angela’s comments revealed her growing level of comfort with a campus that was initially unfamiliar as it became what Attinasi (1989) described as a more personally-connected and cognitively-manageable community. Angela stated, “well, when I first got to campus it was overwhelming. I had no idea where anything was, and it didn't help that I waited until the Sunday before school to move in. I was totally lost. I called my friend Myra who is a Sophomore here and she showed me around the campus at like ten that night so that I would know where I was going on Monday morning. I've learned a lot about the town from her because we're always going out to go shop or get some food.”

Derrick exhibited a growing level of comfort with other members of the university community. Derrick commented, “the people up here seem to be outgoing. Its a lot different than being in high school. Everyone seems to be in a good mood for the most part.” Derrick’s comments reveal both recognition of differences in social relationships between high school and college and a developing sense of community.
Community

Students expressed a full range in their sense of connectedness, belonging, mutuality, validation within the university community, and connections with faculty. Regarding connections with faculty—one of five benchmarks of effective educational practice articulated by the National Survey of Student Engagement (2005)—Jason commented, “Well there really ain’t much of a relationship between me and my proffesors.”

William referred to himself as “rather shy [with] a very strong introvert personality.” But he also indicated a level of comfort with the physical campus, that he spends a lot of time with his girlfriend, and that he uses Facebook frequently.

Angela, on the other hand, did not speak directly of a connection with her professor, but she reflected very favorably on the ways in which he engaged learners in his class: “Personally my favorite instructor for this semester is Dr. [Rivers] ([LE 201]). I think that his lectures are interesting. One of the best things about the class is that throughout the lectures he gives us a break to king of rejuvenate and get back into the class, that is a great way to keep us alert in such a somewhat boring topic.” Angela’s comments reflect a sense of community insofar as she appreciates her professor’s pedagogical strategies that acknowledge the importance of encouraging learners to be connected and cognitively engaged in a social learning process.

Transitioning

As Schlossberg (1984) notes, the significance of transition lies in individuals’ perception of and response to change. Student participants expressed their recognition of the
adjustments they needed to make as they transitioned from high school and home to college, and the greater degrees of freedom and responsibility.

Many of the comments by participants referred to rewards or challenges of adapting to life as a college student. Derrick noticed, “it’s been challenging trying to adapt to college life versus high school.”

Christina commented on the added responsibility of being a college student, “I don’t dislike too much, maybe having to get up on my own, because a lot of the times I just want to sleep in and skip my classes.”

And Tara, reflecting on the challenge of negotiating the academic transition, noted, “it’s a little rough with all the studying...but I’ll get used to it!”

Jason’s comments indicated an awareness of his transition becoming better over time. Jason pointed out that “at first I had a little trouble adjusting. But now I’m fully adjusted and I really like it here. All that I expected is what has happened so there has been any surprises yet. Overall life is pretty good.”

As Pascarella and Terenzini (2005) point out, that while students transitioning to college may experience the benefits of newfound autonomy, excitement, new social networks, pride in academic accomplishments, and increased self-confidence and self-esteem, they also face new challenges in the form of academic, personal, and social adjustments. Venus experienced academic adjustments, and commented, “I dislike all of the homework you have to do and how much studying you have to do to keep up with all of your classes and stay focus.” On the other hand, Venus noted, “I seem to like college a whole lot more because I’m really on my own and doing as I please. I LOVE IT!!! LOL”
Personal life

References to personal life, friendships and feelings, living arrangements, recreation and entertainment, or hobbies were almost all positive. Christina portrayed a positive attitude. “College life is going good so far. I'm getting along very well with my roommate.”

Angela’s experience was quite different. “I hate sharing my room with a stranger who listens to country constantly and rarely locks the door. It is just irritating and frustrating, she is so naive to think that if you leave a door unlocked your stuff is still gonna be there when you get back.” This was the only posting of a negative experience related to personal life.

Social Networking

Seventeen postings were coded for indications of active development and maintenance of a web of social connections. Derrick’s response to the question of what participants like to do in their free time was typical. Derrick stated that, among other things, he likes to “hang out with friends and do whatever.”

Those that posted in the social networking discussion topic indicated considerable use of social networking applications. Sahar said, “I participate in Myspace, Facebook and Blackplanet. lol, im all over the place.”

Jason added, “I have a myspace but I usually don't do any thing on that one. I also have a facebook and I probably spend about 14 hours a week talikng to people, making friends, finding events.”

William said, “I use facebook a lot, I check it everytime I get online, its very protected and I think safer than myspace.”
And Derrick stated, “I use myspace and facebook. I check them at least twice a day. I mainly use them to keep in touch with friends and meet new people.”

**Summary**

Participants readily adapted to the Orkut personal and community spaces and were willing to use the application to discuss their transition to college. In their personal spaces, they provided information regarding their personal interests, characteristics, and information. The peer mentor provided the most responses to Orkut prompts for personal information with 56. The individual with the least participation in both personal and community spaces responded to only nine categories of personal information. The average number of responses to personal profile categories was 33.

Participation in the community discussions came primarily in response to discussion topics in the form of questions posted by the moderator. Discussion postings by the student participants were generally in the form of responses to the moderator’s questions. There was no spontaneous interaction (responding to each other’s posts) among the student participants. Each of the discussions initiated by the researcher were in accord with topics of interest identified in the literature. Analysis of the discussions revealed a picture of participants’ experience and perceptions of the processes associated with the transition to college.

To more directly answer the research question for this collective case study, participants did use the OSNS to articulate their social transition to college and the differences in their academic experience between high school and college. The participants encountered no difficulty adapting to the Orkut environment. They provided information regarding their social identities in their personal spaces. They established personal
connections with other group members. This group of students did not use Orkut for social interaction. Of course, this group of students did not have other friends and acquaintances in Orkut. Orkut did not have the critical mass of peers for participants to regard it as a social networking environment.

Participant postings in the community discussions revealed their personal experiences and perceptions related to issues associated with the transition from high school to college. One of the most common themes in participant comments was academic involvement and how participants felt about their classes, grades, subjects, study habits, and level of challenge between high school and college. As a group initial optimism regarding grades waned over the first few weeks, then slowly increased as students came to grips with the level of academic rigor.

The theme of transitioning was evident in the postings more frequently than any other theme. Participants often talked about what they perceived to be the challenges and rewards of transitioning to life as a college student. Social identity and community were also among the top four most frequent themes within the discussion postings. Participants articulated their thoughts about their evolving identities as college students and expressed their sense of connectedness and belonging within the university community.

Participants talked about dealing with separation. Some participants mentioned that they missed friends and family. Other postings expressed excitement at their newfound freedom. Participants also referred to social involvement. They mentioned attendance at and participation in organized university-related extra-curricular activities and sporting events as well as “just hanging out” with friends. Participants shared details about their personal life.
They mentioned friendships and feelings, living arrangements, and what they do for recreation and entertainment. Lastly, students revealed that they were active participants in social networking. There were indications of active development and maintenance of webs of social connections. Participants mentioned daily use of OSNSs to keep in touch with friends and make new friends.

For this collective case study, the primary significance of these findings resides in the overall use of the OSNS by the group of participants. The group used the Orkut personal spaces and community discussions in ways that expressing their perceptions and experiences addressed the social and academic aspects of the transition to college.

Limitations

Several factors may be considered as limitations to this study. First of all, direct participation by the researcher is likely to have influenced the results in any of several ways. The selection and implementation of Orkut as the online environment, moderation of the semi-structured discussions therein, and interpretations of the results were subject to my perceptions, biases, and perspectives. Also, because I was a White male more than twice their age, students may have regarded me as more of an authority figure than someone with whom they would typically socialize online. The nature of student participation may have been different, had the discussions been led by, for example, a peer mentor.

The nine student participants were enrolled in a freshman seminar, and they were informed that participation in the study was not part of the seminar. However, since I met with them following their weekly seminar meetings, a connection between participation in the study and the seminar may have been implied.
Another factor that the study was that the seminar facilitator, a Science Bound staff member with whom I had worked to coordinate schedules, left the program without notice midway through the semester. After that, it became more difficult to coordinate efforts with the new program coordinator, who was not familiar with my study. Additionally, results may have differed significantly had the use of the OSNS been associated with a learning community, which would have a context of academic and social connections that would be qualitatively different from the seminar.

**Discussion**

The results of this case study suggest that first year ethnic minority students are willing to use OSNSs to explore and develop their social identities and establish networks of connections with others. Similar to the population of millennial students as a whole, these students were familiar with and regularly used social software to foster and maintain relationships in their personal lives. All participants adapted to the environment with very little prompting or training. No participant reported any technical difficulties with the use of the OSNS.

Although participation was entirely optional and was neither graded nor directly associated with any course, students tended to respond to discussion topics in the OSNS as if their participation was merely fulfilling the expectations of a class assignment. There was very little spontaneous interaction. Nevertheless, they did talk about—or otherwise reveal their individual social identities in terms of who they are and how they feel about adapting to life as college students. Information in personal spaces, followed by postings in the
community space discussions, provided a perspective of participants’ developing social identities as college students.

The results of this study indicate that OSNSs may be useful in that they can make the transition processes visible to higher education professionals. OSNS community discussions also make the process visible to students and may be able to provide the individual with a framework for metacognition regarding his or her personal transition.

Student participants used their personal spaces to express a great deal about their social identities. Participants’ personal spaces in the OSNS provided the means by which others could discover shared backgrounds, interests, values, and beliefs—information that is not always as readily shared among acquaintances in other forums. This offers students an opportunity to develop and sustain a network of friends and a sense of belonging (Astin, 1984; Schlossberg, 1984) in terms of social identity and community.

Sharing of personal information is compatible with maintenance of strong ties, which are important for individual support and belonging and are characterized by a greater: emotional attachment; mutual confiding and reciprocity; and amount of time spent interacting (Granovetter, 1973). Information in participants’ personal spaces also enables creation of weak ties with more casual acquaintances, which are crucial to broadening one’s horizons by exposing one to a greater diversity of people and perspectives (Granovetter, 1973, 1983). This relates directly to two of the five National Survey of Student Engagement’s (2005) benchmarks of effective educational practice: provision for a supportive campus environment and an enriching educational experience.
These students were part of a group that already had established interpersonal connections. Some of them were connected as a result of attending the same high school, and all of them shared an orientation seminar. A search of the more popular OSNS, Facebook after the eighth week of the study found that eight of the study participants also had active Facebook accounts. By the end of their participation in the study, many of them had identified several others in the study group as a “friend” in Facebook. Interpersonal connections (friends) in Facebook roughly mirrored those in Orkut (Appendix N). The peer mentor, who had no presence in Facebook, was the exception to the parallel between Orkut and Facebook friends. High school connections were maintained in both Orkut and Facebook.

In general, indications of the ways in which participants were managing the transition to college was consistent with what would be expected of millennial generation students as a whole, based on the literature (Astin, 1982; Astin, 1999; Howe & Strauss, 2000; Jalomo & Rendón, 2004; Pascarella & Terenzini, 2005; Rendón & Jalomo, 1995; Schlossberg 1984; Tinto, 1993). There was no indication as to whether participant use of this particular OSNS helped them in any way to strengthen their individual perceptions of personal connections, feelings of fellowship, and sense of belonging within the university. Nonetheless, participant postings in response to discussion topics in the OSNS community space did reveal something of their thinking on these topics.

Had I begun this study in 2008 rather than 2006, I likely would have used Facebook or Ning rather than Orkut. Widespread negative perceptions of Facebook in particular have
subsided somewhat, as more and more educators acknowledge that OSNSs, in one form or another are here to stay—for the foreseeable future at least.

**Conclusion**

The transition to college involves moving away from family, friends, and a familiar environment, growing new networks of friends, and developing a sense of belonging in the social life of the college community. Students must also contend with differences between high school and college in the amount and nature of effort required to meet the academic demands. To successfully adapt to life as a college student, individuals must manage both the social and academic aspects of the transition (Tinto & Goodsell, 1993; Pascarella & Terenzini, 2005; Silverman, 2007).

White and ethnic minority millennials alike have embraced a wealth of rapidly evolving technologies that enable social networking. The popularity of OSNS among millennials affords colleges and universities a unique context in which to help students manage the processes associated with the transition to college. OSNSs provide a forum within which individuals can make connections with others and explore and express who they are in relation to others and the social groups in which they participate.

This study explored the potential of OSNSs to help students think about and articulate social identity, build and maintain community connections, and successfully navigate the transition to life as college students. Specifically, this study examined the means, methods, and extent to which a group of first-semester ethnic minority students at a PWI used an OSNS to negotiate the transition to college.
The results of this case study suggest that first year ethnic minority students are willing to use OSNSs to explore and develop their social identities, establish networks of connections with others, and reflect on their experience of the transition to college. OSNSs may be useful in that they can make crucial aspects of the transition processes visible to higher education professionals and to the students themselves. Student participants used their personal spaces to express a great deal about their social identities. Participants’ use of personal spaces in the OSNS enabled discovery of shared backgrounds, interests, values, and beliefs—information that is not always as readily shared among acquaintances in other forums. The community discussions fostered reflection on and sharing of personal experiences related to personal life, separation, transition, social and academic involvement, social identity and community, and social networking.

References


CHAPTER 4: GENERAL CONCLUSIONS

Student affairs professionals are becoming aware of the potential benefits of the use of OSNSs—and learning that they need to be able to address the challenges and potentially negative consequences (Mitrano, 2006; National School Boards Association, 2007; Silverman, 2007). Additional research is needed to determine effective methods for using OSNSs to facilitate or articulate the transition from high school to college.

Students are already embracing OSNSs and using them to articulate their social identities on an ongoing basis. They also are using them to make new friends and keep in touch with existing friends, and to create and join varieties of social networks based on shared values, interests, activities, and backgrounds. These networks include social groups within the university, high school connections, and global connections. They are exposed to others of diverse ethnicities. And they communicate with others about academic issues and class projects (Educause Learning Initiative, 2007, 2008).

The use of OSNSs is converging with the goals of education in terms of social identity and community (Owen, Grant, Sayers, & Facer, 2006). OSNSs offer a unique forum within which students negotiating the transition to college can establish the kinds of connections that can lead to a sense of community and feelings of belonging within the college community. At this point, there is very little evidence of student affairs professionals purposefully leveraging the popularity and ubiquity of OSNSs to enhance students’ transition to college. The review of the literature and results of the case study indicate OSNSs can enhance the transition from high school to college by enabling student expression of
experiences and perceptions related to separation and validation, as well as academic and social involvement.

Recommendations for Future Research

Studies similar to the one in Chapter 3—perhaps using a more popular OSNS—could reveal a great deal more about ethnic minority millennial generation students’ academic and social transition experience. Suggestions for future research include:

• using a more popular OSNS;
• using a peer mentor rather than a researcher to facilitate participation in the OSNS;
• posing more probing questions to facilitate dialogue among participants;
• implementation of an OSNS in association with a learning community rather than a seminar;
• opening the community space to incoming students before their arrival on campus and before classes begin;
• recruiting participation of sophomore, junior, and senior class students who previously participated in the program as freshmen.

References


Anticipatory socialization: a process via which individuals begin to identify with the behavior, attitudes, and practices of a community prior to membership; thus preparing for the transition—potentially aiding an individual’s rise into the aspired group and ease his or her adjustment once he or she has become part of the new group.

Aspirations: are personal, closely-held desires for change of status quo regardless of the likelihood of attainment.

Cognitive constructivism: views learning as a matter fashioning meaning of new experiences in ways that reconcile them with prior learning, by adding to, reinforcing, reinterpreting, or reevaluating and reconstructing a more elaborate framework for understanding and interacting with the world.

Cognitive mapping: enables incremental construction of connections and personally meaningful relationships—allowing individuals to fill in the gaps and make adjustments in accordance with their own needs and experience.

Communities of practice: a perspective that learning is a constant process of developing identities associated with various communities through engagement in the practice[s] of the communities in ways that are experienced as meaningful.

Community: a formal or informal social group with some degree of interpersonal connections and having one or more particular social characteristics in common, such as attitudes, interests, values, goals, culture, heritage, activities, or occupations.
Expectation: a presumed future arising from one’s social identities and associated social status. Compared with aspirations, expectations are seldom imbued with as great a degree of emotional attachment.

Holisticity: recognition and treatment of individuals as unique and complex; each individual being a dynamic whole comprising multiple intimately interconnected identities.

Identity Control Theory: maintains individuals behave in ways that correspond to meanings held within their identities and their desires to assure social validation that their perceived self aligns with self-concept.

Involvement: a process of investment of physical and psychological energy in activities associated with a community.

Legitimate peripheral participation: refers to the learning activities associated with the practice of a community that occur within one’s zone of proximal development—leading to a trajectory of membership in the community.

Negotiating a transition: implies both the dialectic connotation of negotiation as well as the process of navigation past obstacles or perceived barriers.

Negotiation of Meaning: can be thought of as the interaction of the two processes of participation and reification (when an understanding is given form).

Sense of belonging: one’s perception of connectedness within a community based on the value one attaches to shared attitudes, interests, values, goals, culture, heritage, activities, etc., along with the social validation one receives.

Separation: a process of change and adjustment of one’s social identities. It marks a change of state in who one is in relation to others.
Situative theories: emphasize the notion that cognition and meaning (i.e., learning) as well as individual identities are reciprocally socially and culturally constructed.

Social categorization: a process of attaching value to, organizing, and making sense of perceived relationships and similarities among social objects, events, and activities.

Social constructivism: more directly acknowledges the interconnection of learning of the individual with the social context wherein one’s reality—in terms of a community’s values, attitudes, behaviors, etc.—is socially reproduced and interpreted.

Social group: an entity that is meaningful to an individual, comprising a number of individuals with some level of connection.

Social identity: a part of one’s overall self-concept. The term acknowledges the dynamic relationship between the individual and the social group(s) to which he or she belongs; and refers to one’s perceptions of membership, values, and emotional significance attached to a specific social group or community.

Social network: a social group and one’s web of interpersonal connections within the group—whether in-person or online.

Social stratification: a self-perpetuating system of values and power relationships of domination and subordination resulting in entrenched social inequities based on, for example, economic status, race, ethnicity, or gender.

Strong ties: interpersonal connections that tend to be stronger and more formal than weak ties, such as those with family and close friends.

Transformation of identity: an internal process of developing who one is and what one can do as a result of social learning.
Transition theory: posits that transition is significant only in terms of the individual’s perception of and response to crisis, transformation, change, or disequilibrium.

Transition: an (a) event or (b) nonevent (i.e., anticipated but unrealized event) that results in change in relationships, routines, assumptions, and/or roles.

Validation: a process of personally significant, ongoing internal confirmation of acceptance as a member of a community.

Weak ties: interpersonal connections with more casual or informal acquaintances and fellow group members.

Zone of proximal development: refers to the region, which lies beyond one’s current state of development, yet is nonetheless within the realm of one’s potential for development by means of learning in collaboration with or assisted by others.
Appendix B. Key social technology terms and related concepts

_Social network:_ a social group and one’s web of interpersonal connections within the group—whether in-person or online.

Social networking technology: any technology that facilitates interaction within social networks.

_Online social network services (OSNSs):_ a category of social networking technology comprising specific online venues that facilitate expression of social identities and growth of social networks. Currently popular OSNSs include MySpace, Facebook, Orkut, Ning, Bebo, Xanga, Friendster, and dozens of others.

_Web 2.0:_ Internet technologies that facilitate, social interaction, content sharing, and collaboration among users.

_Cell phone / mobile phone:_ portable device that enables voice communication with others at a distance. Many offer additional features, such as photography, video recording and playback, text messaging, email, and Internet access.

_Instant messaging:_ Synchronous text-based communication over a network. Some services include video and audio features.

_Texting:_ use of mobile devices to communicate with others by exchanging short (e.g., 140 or fewer characters) messages.

_Email:_ a system of asynchronous communication via composing, sending, receiving, and storing of messages and attached files.
Blog: short for Web log; allows users to publish commentary or journals with formatted text, images, video, and links. A major component is interactivity—readers can leave comments and questions associated with specific blog posts.

Photo- and video-sharing: web sites where registered users are permitted to upload photos or videos, which can be viewed, subscribed to, tagged, and commented on by others.

Micro-blogging: allows users to publish brief (200 or fewer characters) personal updates to which others may subscribe—enabling social proprioception, an awareness of the changes in the status of social connections by which individuals maintain a sense of connectedness.

Wiki: software that enables collaborative creation and editing of the contents of a website—often maintaining a history of the changes made.

Multi-user virtual environments (MUVEs): enables real-time, multi-dimensional, multi-participant interaction via multi-modal communication of users at a distance. Participant avatars can collaborative to build persistent three-dimensional interactive content.

Avatar: an icon or other visual representation of a participant in an online or virtual environment.

Massively multiplayer online role-playing games (MMORPG): theme-based (often fantasy) virtual environments wherein large numbers of players can assume the role of various characters, participate in goal-oriented activities and interact competitively with other users.
**Folksonomy**: collaborative tagging or social classification of content using a shared, socially-developed vocabulary.

**Tag cloud**: a visual representation of the frequency of specific terms (tags) users choose to refer to the content of a web site.

**Web feed**: aka RSS, a data format enabling users to subscribe to website content updates (e.g. from blogs, news services, & podcasts) which can be collected and viewed via an aggregator (reader).
Appendix C. Key terms and concepts: Chapter 2.

1. Identity, community and social networks
   a. Community: a formal or informal social group with some degree of interpersonal
      connections and having one or more particular social characteristics in common,
      such as attitudes, interests, values, goals, culture, heritage, activities, or
      occupations.
   b. Social categorization: a process of attaching value to, organizing, and making
      sense of perceived relationships and similarities among social objects, events, and
      activities (Tajfel, 1978).
   c. Social group: an entity that is meaningful to an individual, comprising a number
      of individuals.
   d. Social identity: a part of one’s overall self-concept. A dynamic relationship
      between the individual and the social group(s) to which he or she belongs; and
      refers to one’s perceptions of membership, values, and emotional significance
      attached to a specific social group.
   e. Social network: a social group and one’s web of interpersonal connections within
      the group—whether in-person or online.
   f. Strong ties: interpersonal connections that tend to be stronger and more formal,
      such as those with family and close friends.
   g. Weak ties: interpersonal connections with more casual or informal acquaintances
      and fellow group members.

2. Traditionally marginalized groups
a. *Ethnic minorities*: a social categorization based less on relative numbers than on systems of social stratification and subordination of racial or ethnic groups in terms of social status, power and opportunity for self-determination (Rendón, García, & Person, 2004).

b. *Ethnicity*: a broad milieu resulting from social categorization that includes cultural background, language, and nationality-related aspects of an individual’s identity.

c. *Race*: a socially constructed subjective categorization of groups of individuals based on perspectives of biological determinism and social categorization by perceived differences in phenotypical characteristics.

d. *Social stratification*: self-perpetuating systems of values and power relationships of domination and subordination resulting in entrenched social inequities based on, for example, economic status, race, ethnicity, or gender.

3. Demographics

a. *Boomers*: the so-called baby-boom generation that includes Americans born between 1945 and 1965; the parent generation of the millennials (Howe & Strauss, 2000).

b. *Millennials*: members of the so-called millennial generation, aka net generation; the generation of Americans born since 1982 that includes current (2008) high school and college-age youth and young adults.

4. Transition to college

a. *Involvement*: a process of investment of physical and psychological energy in activities associated with a community.
b. *Separation:* a process of change and adjustment of one’s social identities. It marks a change of state in who one is in relation to others.

c. *Transition theory:* posits that transition is significant only in terms of the individual’s *perception of and response to* crisis, transformation, change, or disequilibrium.

d. *Transition:* an (a) event or (b) nonevent (i.e., anticipated but unrealized event) that results in change in relationships, routines, assumptions, and/or roles.

(Schlossberg 1984).

e. *Validation:* a process of personally significant, ongoing internal confirmation of acceptance as a member of a community.

5. Technologies that enable social networking

a. *Online social network services (OSNSs):* a category of social networking technology comprising specific online venues that facilitate growth of social networks. Currently popular OSNSs include MySpace, Facebook, Orkut, Ning, Bebo, Xanga, Friendster, and dozens of others.

b. *Social networking technology:* any technology that facilitates interaction within social networks.
Appendix D. Programs coordinated by Multicultural Student Affairs at Iowa State University

(Iowa State University Dean of Students Office, n.d.a.).

*Academic Program for EXcellence*, an eight-week summer bridge program designed to help the transition and adjustment of incoming first-year ethnic minority students

*African American Alumni Mentor Program*, a collaborative effort with the ISU Alumni Association, matches African American Alumni with currently enrolled African American students at Iowa State University in similar majors or with similar experiences.

*Black Cultural Center* provides a home away from home for African American to enhance cultural identity, education and understanding between diverse communities at the university and surrounding community.

*Carver Academy* annually awards one hundred full-tuition scholarships that are renewable for up to three additional years to high-achieving graduating high school students of color and provides guidance, and nurtures the personal, academic, and leadership development.

*Celebrations!*, the MSA annual awards ceremony that recognizes ethnic minority students and allies for academic achievement, campus leadership, and contribution to the community.

*Community Of Color Orientation*, a three-day event of activities that focus on issues surrounding identity development, community building, and cultural transition.
*Drums of Diversity*, a newsletter representative of all ethnic minority students encouraging participation in dialogue, thought and action on campus, and to celebrate success and overcome challenges within the community of color.

*Iowa State Conference on Race and Ethnicity*, modeled on the National Conference on Race and Ethnicity provides for university-wide participation in a day of workshops, training, and discussion on parallel issues in race and ethnicity.

*MSA Martin Luther King Jr. Emergency Loan*, processed through college-based Multicultural Liaison Officers provides interest-free 30-day loans to address extenuating financial situations that may likely affect a student's educational goals.

*Multicultural Learning Community*, brings students together from a variety of backgrounds to explore issues relative to race and ethnicity through course work and out of class experiential learning activities.

*Multicultural Liaison Officers Program*, jointly sponsored by MSA and each of the colleges in the university, work to create a university environment more conducive to successful matriculation, graduation, and placement of ethnic minority students by providing various educational, cultural and social activities.

*Multicultural Vision Program*, a scholarship program to assist ethnic minority students from the state of Iowa, who are entering directly from high school, annually grants full-tuition for eight semesters of full-time study to one hundred (100) incoming.

*Student of Color Convocation* annually welcomes new classes of ethnic minority students to the ISU campus and the surrounding community, and offers the opportunity to make
early connections to resources and services that are designed to help them succeed at the university.

*Student of Color Retreat*, a program open to all first-year ethnic minority students at the university, providing an opportunity for students to interact and participate in activities in a fun and relaxing setting.
Appendix E. About the Science Bound program at Iowa State University.

Science Bound is an outreach program at Iowa State University that encourages underrepresented students of color, primarily from a nearby urban area of more than 250,000 residents, to pursue degrees in math, science, engineering, or technology at the University. Students are accepted into the program if they demonstrate potential based upon scores on standardized tests and/or teacher recommendations. They subsequently receive a full tuition scholarship to Iowa State University provided they: (1) maintain a high school grade point of 3.0 (on a 4.0 scale); (2) participate in at least 75% of Science Bound activities; and (3) enroll in a technical, math, or science-related major. By engaging students well before college age, the Science Bound program provides opportunities for them to see applications of math and science that are related to possible career paths, and helps build confidence in their math and science skills as well as their potential success as college students.
Appendix F. Subjective evaluation of several OSNS for use in this study.

Itemized subjective evaluation of several OSNSs is displayed in MySpace, Facebook, Orkut, and elgg were notable among Online social network services that met the criteria of providing both personal spaces as well as community spaces. At the time of my evaluation, MySpace was the most popular social networking application in terms of sheer number of accounts (comScore Media Metrix, 2006). MySpace met all of the functional requirements for the study, and was worthy of consideration due to the versatility of the personal spaces and the existence of many active, dynamic communities. However, it also exposed users to visually aggressive sexist advertising (see Appendix G). I found elgg to be clean and professional and included the necessary functionality, but was not a robust, fully-developed application. Facebook offered the necessary functionality, had somewhat less aggressive advertising than MySpace, and had the added advantage of having a school-specific focus (see Appendix H). It was also ostensibly the most ubiquitous application for social networking used by students at the university. The only major drawback to the use of Facebook that I saw was that it had recently received considerable attention in the press and in higher education journals for several real and perceived negative unintended consequences (Bugeja, 2006; Read, 2006a; Read & Young, 2006; Williams, 2006).
Table F10. Criteria used in subjective evaluation of OSNSs.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>MySpace</th>
<th>Facebook</th>
<th>Orkut</th>
<th>Elgg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is there potential for robust expression of identity or personal information?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Is there user control over level of privacy of personal information?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Does this OSNS provide for both personal as well as community spaces within which access can be selectively controlled?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Does it appear to be relatively easy for new users to navigate?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Do users have the ability to establish “friend” status jointly with other individuals? (See explanation of Facebook “friend” in Appendix H.)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Do users have the ability to explore and join other communities?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Do users have the ability to invite other friends that are not study participants to join the community?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Is there perceived or effective “safety” from harassment and “online predators”?</td>
<td>No</td>
<td>No</td>
<td>?</td>
<td>Yes</td>
</tr>
<tr>
<td>Does this environment have “visually aggressive” third-party advertisements?</td>
<td>Excessive</td>
<td>Moderate</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Compared to other options, is this environment less overtly sexist, racist, or classist?</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>As viewed by the general public and parents of student participants, does this environment have a questionable reputation?</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Has this OSNS been widely adopted?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
Appendix G. About MySpace.

Examples of MySpace Personal Space for a Male Member (top) and a Female Member (bottom) (MySpace, 2007).
Appendix H. About Facebook.

Friends
Facebook is a social utility that connects people with friends and others who work, study and live around them. People use Facebook to keep up with friends, upload an unlimited number of photos, share links and videos, and learn more about the people they meet.

Anyone can join Facebook
All that’s needed to join Facebook is a valid email address. To connect with coworkers or classmates, use your school or work email address to register. Once you register, join a regional network to connect with the people in your area.

Discover the people around you
Facebook is made up of many networks, each based around a company, region, or school. Join the networks that reflect your real-life communities to learn more about the people who work, live, or study around you.

Keep it private
At Facebook, we believe that people should have control over how they share their information and who can see it. People can only see the profiles of confirmed friends and the people in their networks. You can use our privacy settings at any time to control who can see what on Facebook.

Friends and Social Timeline
The Friends page is your main source of finding information about your Facebook friends. From the Friends page you can find all of your Facebook friends, update your friend details and quickly navigate to specific friends' profiles. In addition, you can view your Social Timeline and try out our Friend Game to test your knowledge of your friends.

The Friends page allows you to sort all of your friends on Facebook into categories so you can quickly view your various types of friends. In addition, you can poke, message or view your friends' profiles easily from this page.

You can invite anyone that you can see on the site to be your friend. Just use Facebook Search to find people you know and then click on the “Add to Friends” button on the right side of the page. A friend request will be sent to that person. Once they confirm that they actually are friends with you, they will show up on your Friends List.

Mutual friends are the people who are Facebook friends with both you and the person whose profile you are viewing. For instance, if you are friends with Chris, and Mark is friends with Chris, then Chris will be shown as a mutual friend when you are viewing Mark's profile.

Your Social Timeline provides a way to keep track of all of your friendships and relationships on Facebook. By clicking “How do you know this person?” from the Friends page, you can describe each relationship on Facebook and keep your Social Timeline up to date.

About Facebook Friends (Facebook, 2007b).
Example of Student’s Facebook Personal Profile Page (split—with top half of page at left)

(Facebook, 2006c).
Example of Facebook Group (Facebook, 2007d).
Appendix I. About Orkut.

Orkut is an online community website designed for friends. The main goal of our service is to make your social life, and that of your friends, more active and stimulating. Orkut’s social network can help you both maintain existing relationships and establish new ones by reaching out to people you’ve never met before. Who you interact with is entirely up to you. Before getting to know an Orkut member, you can even see how they’re connecting to you through the friends network.

Orkut makes it easy to find people who share your hobbies and interests, look for romantic connections or establish new business contacts. You can also create and join a wide variety of online communities to discuss current events, reconnect with old college buddies or even exchange cookies recipes.

To join Orkut, simply click on the link in the email you received and follow the instructions for creating a user name and password. If Orkut doesn’t sound like it’s for you, feel free to delete your invitation. If you change your mind in the future, don’t worry! We’ll still be here. If you haven’t yet received an invitation to join, please be patient. We’d love to immediately include everyone who wants to participate; however, we’re also trying to ensure that Orkut remains a close-knit community. Over the next few weeks, hopefully, the network will grow to a point where everyone who wants to join has the opportunity to do so.

It is our mission to help you create a closer, more intimate network of friends. We hope to put you on the path to social bliss soon.

Enjoy (=

(Orkut, 2006a)
Examples of community space in Orkut — community home (top) and discussion thread (bottom) (Orkut, 2006b).
Appendix J. Ning features

Ning Features

With Ning, you can create a full social network for free that you can customize and brand as your own.

Here are a few of the features that come as part of your free social network on Ning:

Social Networking

- Members can invite new members, meet new people, and make new friends on your network.
- Full message center with address book importing from Gmail, Yahoo Mail, and Hotmail.
- See which members of your network are online now.
- Customizable profile pages.
- Photo slideshows, video players, music players, and network badges, that can be embeeded anywhere on the internet, seamlessly funneling new people to your network.
- Members can set different privacy settings for every photo, video, group, or blog post they contribute.
- RSS feeds of your network's features, such as members, discussions, photos, videos, music/podcasts, and blog posts.

Full Customization

- Add your own logo, branding, and visual design to make your network unique.
- Choose from a variety of themes and customize them to make them your own.
- Make your network public or private.
- Customize the appearance of your branded photo slideshow, video player, music/podcast player widgets and network badges.
- Customize the profile questions your network asks when members join. Make questions private, so that the answers are only viewable by you and your Network Administrators.
- Enable “one-click” Facebook Promotion so your members can add photo slideshows, video players, and music/podcasts from your network seamlessly into Facebook.
- Choose to moderate photos and videos before they are posted.
- Choose from a set of supported languages (English, Chinese, Dutch, French, Portuguese, Spanish) or translate your social network into any unsupported language by changing one file in the code.
Choose the features you want on your Social Network

The option to mix and match different features to create the perfect social network.

**Photo Sharing**
- Upload photos from a computer, mobile phone, or Flickr account.
- Add photo comments, ratings, tags, locations, favorites, and share via email.
- Create, organize, and view albums.
- Create, view and "embed" photo slideshows branded for your network.
- View all photos across the social network.

**Video Sharing**
- Upload videos from a computer, mobile phone, or any video service on the web.
- Add video comments, ratings, tags, locations, favorites, and share via email.
- Create, view and "embed" Flash video players.
- View all videos across the social network.

**Discussion Forum**
- Start and tag a discussion.
- Add discussion posts and reply to those posts.
- Organize discussions by categories.
- Click through the personal profile pages of other members engaged in the discussion.
- View all discussions across your social network.

**Groups**
- Enable members of your network to create groups.
- Enable members of your network to make groups public or private.
- Add group descriptions, images, discussions, and members.
Music & Podcasting
- Create music and podcast playlists for both the network as well as for each individual member of your network.
- Create, view and “embed” Flash music and podcast players.

RSS Feedreader
- Pull in a RSS feed to your network from an external source of news, information, or content.

Text Boxes for Widgets
- Copy and paste in widgets from around the web or from other parts of your network.
- Add some HTML to a text box for further instructions or text on your network.

Member Profile Pages & Blogs
- Member profile questions created by you for your network.
- Member blog posts with photos, files, and widgets.
  - Manage blog posts and moderate comments.
  - Choose the option to publish in the future.
- Ability to customize the appearance of member profile pages.
- Option to add widgets to profile page.

Management Dashboard
- Choose to moderate photos and videos before they are posted.
- Define a set of Network Administrators for your network.
- Promote blog posts, photos, or videos from your member profile pages to the Main page of your social network.
- View members and outstanding invitations. Ban members from your network, as desired.
- Delete members, photos, videos, blog posts, comments, and forum posts, as desired.
- Add/edit features on your social network, as desired.
- Send broadcast messages to all of your members.
The Ningbar

Ning platform services at the top of every social network that gives your members:

- The opportunity to register once and join any social network powered by Ning with the same Ning ID and email address.
- Easy access to all of their friends, messages, addresses, and social networks on Ning from one place.
- Search features to quickly access member profiles, photos, videos, and forums posts across your social network.

Terms of Service and Privacy Policy Features

- You own the code running your social network and any modifications you make to it.
- You have full access to the profiles your members create on your network.
- You can create private questions where the answers in your members' profiles are only seen by you and your Network Administrators.
- You control all the content on your network.
- Full APIs enable you to back-up or migrate your member profile data and network content off your social network on Ning.

Premium Service Options

- Option to run your own ads.
- Option to use your own domain name.
- Option to protect your social network.
- Option to add additional storage and bandwidth.

Advanced Customization

You can also change not only how your new social network looks, but how it works too.

For software developers with knowledge of PHP, Ning APIs, and the social network's code structure and guidelines, you can completely customize your social network's behavior. To get a copy of the code and join our developer program, visit the Ning Help Center.

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(Ning, 2008)
## Appendix K. Discussion Postings and Researcher Journal

<table>
<thead>
<tr>
<th>Topic / posting</th>
<th>person</th>
<th>my reflection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1. How are your classes going?</td>
<td>00 - Moderator</td>
<td>Initial responses based on experiences of first two weeks of classes.</td>
</tr>
<tr>
<td></td>
<td>10 - Carolina</td>
<td>Carolina, the senior peer mentor is first to respond. Her post begins to reveal personality, identity, engagement, imagination, and alignment.</td>
</tr>
<tr>
<td></td>
<td>09 - William</td>
<td>William: Enthusiastic, but shallow response. Possibly due to the way the topic / question was written.</td>
</tr>
<tr>
<td></td>
<td>07 - Tara</td>
<td>Tara reflects on some issues and mentions a couple of strategies for dealing with them</td>
</tr>
<tr>
<td></td>
<td>05 - Jason</td>
<td>Derrick and Jason both are confident and optimistic.</td>
</tr>
<tr>
<td></td>
<td>09 - William</td>
<td>William is still enthusiastic. This time he provides a bit more personal reflection.</td>
</tr>
<tr>
<td></td>
<td>02 - Alison</td>
<td></td>
</tr>
<tr>
<td></td>
<td>01 - Angela</td>
<td>Angela provides a more substantive reflective narrative of her experiences.</td>
</tr>
</tbody>
</table>

### Week 1. How are your classes going?

**00 - Moderator**

How are your classes going?

**00 - Moderator**

- Initial responses based on experiences of first two weeks of classes.

**10 - Carolina**

- Class are good! Now that I am a senior (sigh..) I'm now doing classes for my major, believe or not! So it's not only about getting the grades now, but now really learning the things long-term for the job...pretty interesting... - The one class I don't like is my math 307 class (linear algebra- matrices)...I really don't care for it,...but it's an elective that I have to do. - Roommates are awesome and my home is good!

**09 - William**

- My classes are going really well. I like my schedule a lot and I like my instructors!!

**07 - Tara**

- My classes are going pretty good...I am having a little trouble with math and Spanish but I'm getting a study group together so hopefully it will help. I just have to work on managing my time better;

**05 - Jason**

- My classes have gone pretty good. Most aren't too hard except for calc. Other than that they have been ok.

**09 - William**

- So far my classes are going great, I have my first round of tests on Wednesday so I might have change of heart come next week, but I'm studying hard to make this test count!!

**02 - Alison**

- My classes so far are going really well. I trying to stay caught up on all of my homework.

**01 - Angela**

- Classes at ISU. Classes are going okay. Nothing too complicated except of course my math lecture class, it is soo intense. I would pay more attention in class but my instructor is more entertaining because he is so strange and just bizarre(you would have to take the class to know what I mean). Um, my philosophy instructor looks like the stereotypical philosophy teacher but he is pretty cool. Guess thats all for now. Classes are a lot of work, but its nothing I haven't seen before.

**00 - Moderator**

- Hey, it's great to hear from you! I hear several of you are taking chemistry. I hope that is going ok. Do any of you study together?
<table>
<thead>
<tr>
<th>Most of my classes are going pretty well except Chemistry. I HATE CHEMISTRY! lol!</th>
<th>06 - Sahar</th>
</tr>
</thead>
<tbody>
<tr>
<td>i like all my classes except astronomy, but it alright, hopefully i'll get the hang of it sooner or later.</td>
<td>03 - Christina</td>
</tr>
<tr>
<td>My classes are going pretty good. I don't like English at all but I do my work, as a matter of fact I just wrote my first paper! I think I did good on it. My Chemistry is the worst class so far. I had an exam and I didn't do as good as I thought I was. So now I'm constantly studying my chemistry.</td>
<td>08 - Venus</td>
</tr>
<tr>
<td>Venus's response is reflective. She shares her recognition of what she needs to do.</td>
<td></td>
</tr>
<tr>
<td>Most classes are going pretty good. A lot of studying involved</td>
<td>04 - Derrick</td>
</tr>
<tr>
<td>My classes are going so much better! I changed up my studying habits and started to focus a little more in class. I beginning to become comfortable and like this whole college thing!</td>
<td>08 - Venus</td>
</tr>
<tr>
<td>Venus and Christina spontaneously follow up on this topic several weeks later. Venus appears to be adjusting to a better academic focus.</td>
<td></td>
</tr>
<tr>
<td>My classes are going ok. School is school. hopefully i can decide on a major pretty soon!</td>
<td>03 - Christina</td>
</tr>
<tr>
<td>00 - Moderator</td>
<td>After the first week, I was disappointed with the limited response. That picked up a bit later, but it appears that people tend to wait until just before seminar meetings to post—as if they were viewing participation in the topic as an assignment rather than an opportunity to share and make connections with others. Nobody really interacted with others or responded to anyone else's postings. I'll try to encourage more spontaneity and interaction.</td>
</tr>
<tr>
<td><strong>Week 2. Cyclone stuff:</strong> Have any of you bought any ISU Cyclone clothing or other Cyclone stuff?</td>
<td>00 - Moderator</td>
</tr>
<tr>
<td>This topic is intended to look at institutional identification. Although this is not related to academics, it does get at issues of alignment.</td>
<td></td>
</tr>
<tr>
<td>i haven't bought any yet, but I'm planning on getting the &quot;BEat Iowa Again&quot; tshirt before this weekend. I think i have enough ISU stuff from over the years to last me awhile!</td>
<td>09 - William</td>
</tr>
</tbody>
</table>
Hey Moderator, how's it going? Cyclone stuff
Yes, I just bought some Cy stuff on Friday. I bought some red ISU shirts so I could show my school spirit at the football game. The game was great I hope you went. See ya around. Angela

Angela responds to me as a person—as a fellow community member. Again, she exhibits a more personal response that reveals more depth of her identity.

i've bought a ton of isu clothing...probably more than i should have. i got sweatshirts, t-shirts, hats etc. they're nice and comfy to wear around campus..especially when you have an early class and don't really feel like dressing up:)

Tara appears to be very socially engaged and shows strong sense of identification with the university.

no not yet but my fraternity is going to provide me with a tailgating shirt.

Tara appears to be very socially engaged and shows strong sense of identification with the university.

Yes I have bought some Cyclone stuff. I bought a key chain. I think I am going to buy a t-shirt too.

02 - Alison

I havnet bought anything yet, but i will soon.

04 - Derrick

I haven't bought anything here yet

06 - Sahar

yeah i bought a cycan about a week ago and i'm always lookin' at isu stuff. i need to buy a sweatshirt for fall/winter.

03 - Christina

NO I have not bought any Cyclone items but I plan to when I go to a football game... Maybe! lol

08 - Venus

00 - Moderator

I see that for the most part, they are making some kind of connections to the athletic program at least. Most responses are not deep at all.

**Week 3. Adjusting:** So you are probably starting to get a better feel for what it is like to be a college student. How do you feel about life as a student at ISU so far? Or what did you expect -- and in what ways do things differ from what you expected?

This topic is looking more directly at the development of an identity as a college student. It attempts to prompt responses on feelings and perceptions of becoming part of community.

adjusting - Dorm life certainly is interesting, it is soo hard learning to share everything with everyone around you. The work load is a lot harder than high school but if you keep caught up on your syllabus you will be fine. college life in general is okay, lots of people are really friendly and are interested in getting to know you. Still miss the family, even though I'm only 30 minutes from home :(.

01 - Angela

Angela is great! Once again she comes through with a thoughtful reflective contribution. Plus as the first participant to respond within the topic, she provides a good model for others to consider in their responses.
<table>
<thead>
<tr>
<th>Comment</th>
<th>Author</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think everything is going better than expected. Classes are fun. I don't expect to have any problems while I'm here</td>
<td>Derrick</td>
<td>Derrick and Jason both are confident and optimistic</td>
</tr>
<tr>
<td>At first I had a little trouble adjusting. But now I'm fully adjusted and I really like it here. All that I expected is what has happened so there has been any surprises yet. Overall life is pretty good.</td>
<td>Jason</td>
<td>Jason does finally respond with enough reflection to give a bit more insight into his transition to college life.</td>
</tr>
<tr>
<td>Things started out tough at first but things are starting to get better</td>
<td>Sahar</td>
<td></td>
</tr>
<tr>
<td>College life is going good so far. I'm getting along very well with my roommate. I know the campus pretty well so I haven't been lost yet.</td>
<td>Christina</td>
<td>Christina is getting along well with her roommate. Generally positive.</td>
</tr>
<tr>
<td>Well things are going way better than I thought. My classes were easy to find and my roommate is okay. I seem to like college a whole lot more because I'm really on my own and doing as I please. I LOVE IT!! LOL</td>
<td>Venus</td>
<td>Venus LOVES her newfound independence. Very Positive.</td>
</tr>
<tr>
<td>It's a little rough with all the studying...but I'll get used to it!</td>
<td>Tara</td>
<td>Tara says the transition is a bit rough.</td>
</tr>
<tr>
<td>Oh yes... The craziness has already begun! hahhahha but it's all good!</td>
<td>Carolina</td>
<td></td>
</tr>
<tr>
<td>Well a couple days before school started I walked around the campus and found my classes.</td>
<td>Sahar</td>
<td>Sahar is laid back. She just figured things out for herself.</td>
</tr>
</tbody>
</table>

**Week 4. “Ins and Outs”:** How do you learn the “Ins and Outs” of the university—like figuring out where you need to go and what you need to do? And who do you talk to if you need some advice? Most responses are generally more thoughtful than previous topics.

This topic addresses issues related to identification with the university as a community—how individuals seek or receive social support for becoming a full member with a degree of confidence and competence.
<table>
<thead>
<tr>
<th>Name</th>
<th>Experience</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angela</td>
<td>Angela was “overwhelmed” at first, but did seek help from a student that had already been here a year. Her friend helped her in several ways.</td>
<td></td>
</tr>
<tr>
<td>Mona</td>
<td></td>
<td></td>
</tr>
<tr>
<td>William</td>
<td>William is independent. He was already fairly familiar with the layout of the campus. All he needed to do was refer to a map a few times at first.</td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td>Jason is fairly confident, but can rely on a network of support from within his fraternity.</td>
<td></td>
</tr>
<tr>
<td>Carolina</td>
<td>Carolina had been to campus a lot as a high school Science Bound participant, but didn’t have a good orientation of the campus layout until she had to negotiate it for herself as a freshman.</td>
<td></td>
</tr>
<tr>
<td>Christina</td>
<td>Christina didn’t need any help.</td>
<td></td>
</tr>
<tr>
<td>Tara</td>
<td>Tara didn’t identify any need for help.</td>
<td></td>
</tr>
<tr>
<td>Derrick</td>
<td>Derrick seems to feel comfortable “talking to anyone” if he needs help, but mostly can negotiate things for himself.</td>
<td></td>
</tr>
<tr>
<td>Week 5. like and dislike: So far, what do you like or dislike about being a college student?</td>
<td>00 - Moderator</td>
<td>Regarding negotiation of dealing with the physical campus, respondents range from being completely independent to those that appreciate interacting with more experienced university community members.</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>There really isn't too much that I dislike. Probably the only things I don't like are having to park at the stadium and when the buses are completely full.</td>
<td>04 - Derrick</td>
<td>Derrick just doesn't like transportation challenges.</td>
</tr>
<tr>
<td>The only thing that I dislike is all the homework and test that I got to do. Everything else I like specially the freedom from my parents.</td>
<td>05 - Jason</td>
<td>Jason doesn't enjoy the amount of homework and studying, but likes his independence from his parents.</td>
</tr>
<tr>
<td>I don't dislike too much, maybe having to get up on my own, because a lot of the times I just want to sleep in and skip my classes.</td>
<td>03 - Christina</td>
<td>Christina notice the challenge of having to be responsible for time management (getting up in the morning).</td>
</tr>
<tr>
<td>likes and dislikes - COllege is just really different. It's hard adjusting to roommates and their behaviors and its hard just getting use to all of the effort that college requires you to put forth for all of your classes. I think the thing I dislike the most is not being able to live at home. I hate sharing my room with a stranger who listens to country constantly and rarely locks the door. It is just irritating and frustrating, she is so naive to think that if you leave a door unlocked your stuff is still gonna be there when you get back. I really like the freedom. If you tell your parents you're staying on campus for the weekend they really are none the wiser that maybe you went on a road trip to Minnesota to go gambling with your friends, or maybe you just chose to stay with your boyfriend one weekend. They have no idea and probably will never know.</td>
<td>01 - Angela</td>
<td>As usual, Angela is more thoughtful and covers more in her response. She likes the freedom of not living with her parents, but dislikes having to put up with her roommates lack of consideration.</td>
</tr>
<tr>
<td>I dislike all of the homework you have to do and how much studying you have to do to keep up with all of your classes and stay focus... but I do like all of the free stuff we do get in return!</td>
<td>08 - Venus</td>
<td>Venus doesn't care for the amount of homework and studying that is required. But she likes the “free stuff”</td>
</tr>
</tbody>
</table>
I like and dislike the freedom, I'm someone who can study on my own, but I'd learn more if I had someone there to push me more! 09 - William

William gets straight to the point and sees the positive and negative aspects of newfound freedom.

I dislike the academic part of college but I do like the fact that in a way I'm on my own away from my parents which is what I always wanted. 06 - Sahar

Sahar dislikes academic part of college, but likes her newfound freedom from parents. Everybody seems to be recognizing and confronting the challenges and the excitement of newfound independence and freedom.

Everybody seems to be recognizing and confronting the challenges and the excitement of newfound independence and freedom. 00 - Moderator

This topic is intended to explore the NSSE category of "Student Interactions with Faculty Members".

Week 6. best and worst instructors: How do you feel about your relationships with faculty at the university? Tell us about your favorite or best professor/instructor and your least favorite or worst professor/instructor. 00 - Moderator

Well there really ain't much of a relationship between me and my professors. And I don't have a favorite or worst professor yet. 05 - Jason

Jason seems completely detached from direct interaction with faculty.

I don't really have much of a relationship with any of my professors although I have met them in person 06 - Sahar

Sahar has at least met her professors, but hasn't developed any kind of relationship with any of them.

I think for the most part the staff is nice. My favorite instructor would probably be my psych teacher because he tells stories that students can relate to and understand. I don't really dislike any of my professors...they all are pretty nice 07 - Tara

Tara has a positive attitude toward her professors and finds at least one to be able to engage students in a way they can relate to.

best and worst instructors - I feel that instructors just range in the way that they teach. Personally my favorite instructor for this semester is Dr. [Rivers] ([LE 201]). I think that his lectures are interesting. One of the best things about the class is that throughout the lectures he gives us a break to kind of rejuvenate and get back into the class, that is a great way to keep us alert in such a somewhat boring topic. My least favorite professor would be my philosophy instructor. I'm not sure if it is just him or if it is just the class. Philosophy certainly is conceptual. 01 - Angela

Angela goes beyond merely communicating her likes and dislikes. She reflects on some of the reasons why certain pedagogical approaches are more effective and engaging.
Most of my professors are really nice and good for the most part. I just have like 1 professor who jus gives out long lectures about math and doesn't know much about it herself.

<table>
<thead>
<tr>
<th>08 - Venus</th>
<th>Venus also comments on style and effectiveness of teaching, but unlike Angela, Venus describes an example of an instructor, whose style is not effective.</th>
</tr>
</thead>
</table>

I haven't met many of my instructors, so i really can't have an opinion, but i will say I don't like a large lecture for Calculus!!

<table>
<thead>
<tr>
<th>09 - William</th>
<th>William is detached from personal interaction with faculty. Apparently the large lecture format for calculus either doesn't work for him—or it is not taught effectively.</th>
</tr>
</thead>
</table>

Instructors in general up here teach a lot different than high school. It is a transition between teaching styles

<table>
<thead>
<tr>
<th>04 - Derrick</th>
<th>Derrick notices that he has to adjust to a style of teaching that is different from high school.</th>
</tr>
</thead>
</table>

**Week 7. adapting to academic life:** Without using names, tell us about someone you know that is not adapting as well to academic life at the university. Describe the signs -- or the reasons: Are they just blowing things off? Partying more than they should? Not studying? Drinking too much? Not adapting socially? Not motivated? Anything else?

<table>
<thead>
<tr>
<th>00 - Moderator</th>
<th>Responses to this topic cover the full range—from completely detached from interaction with faculty, to informed appreciation for effective and engaging teaching styles.</th>
</tr>
</thead>
</table>

**adjusting to academic life - My room mates friend is kinda slacking. She spends more time in clubs, than focusing on her academics. She had a big biology lab exam one day, and instead of studying for it, she chose to work on mock trial(a club) until 3am and completely blow off studying. She did fail that exam of course. I dunno, she just doesn't seem to be into school that much, she is much more content working on things that don't pertain to school academics.**

<table>
<thead>
<tr>
<th>01 - Angela</th>
<th>Here, I am looking for signs of recognition of the challenges of adapting to the academic requirements of life as a college student as well as signs of unsuccessful adaptation.</th>
</tr>
</thead>
</table>

One of my fraternity brothers is just putting things off because he is always playing video games. Because of this he is not doing good in his classes.

<table>
<thead>
<tr>
<th>05 - Jason</th>
<th></th>
</tr>
</thead>
</table>

I don't really know of anyone who is having troubles, I do know someone who has decided ISU isn't right for them and is planning on going to DMACC next semester. But besides that everyone I know is getting along well enough!

| 09 - William | |
I know a person who isn't adapting well to the academics. She fears taking test because she doesn't know how to study.  

| 06 - Sahar |

It's been challenging trying to adapt to college life versus high school. High school didn't really require me to study a lot, but college demands hours at a time. Just something that you can only get better with over time.  

| 04 - Derrick |

Week 8. Making Connections: How do you feel about your relationships with other students at the university; and what is it that makes the difference between those you connect with easily versus those that you don't really connect with at all?  

| 00 - Moderator |

I'm good with knowing some of the students here but I wish that I can meet more especially students who have the same major as me.  

| 06 - Sahar |

making connections I haven't really made any new friends. Just a few, I'm a rather shy and have a very strong introvert personality.  

| 09 - William |

I've met a lot of people up here. I hang out with a lot of different people. It's been fun for me  

| 04 - Derrick |

people in general - I think that some students just seem more outgoing than others, and those are usually the people that I get along with. Some people just seem kinda stand-offish and just seem concerned with themselves. The students that are just friendly and talkative are the ones which seem to be easy going.  

| 01 - Angela |

The people up here seem to be outgoing. It's a lot different than being in high school. Everyone seems to be in a good mood for the most part.  

| 04 - Derrick |

Week 9. free time: What do you do in your free time? And what would you like to be doing if you had more free time?  

| 00 - Moderator |

Everybody that responded either knows somebody that is not adapting well to the academic requirements, or at least they themselves recognize the challenges.  

| 00 - Moderator |

The intent of this topic is to seek responses regarding social networking and the NSSE benchmark of “supportive campus environment”.  

| 00 - Moderator |

OK, only 3 responses. Not very helpful in getting any insight.  

| 00 - Moderator |

This topic is probably an offshoot of the “8 - making connections” topic.  

| 01 - Angela |

Angela and Derrick appreciate outgoing personalities.  

| 04 - Derrick |

Again this topic anticipates expressions of social connections

<p>| 00 - Moderator |</p>
<table>
<thead>
<tr>
<th>IN my free time I am usually doing my homework.. I try to get ahead on all of my homework during the week so that i don't have anything to do during my weekend. Um, and I like eating during my free time. Oh, and sometimes I attend some of the seminars around campus or just hang out with my friends.</th>
<th>01 - Angela</th>
<th>Angela focuses on academics and when that is taken care of, she enjoys “hanging out” with her friends.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I'm doing more of my homework, and working out. However, other then that I'm usually hanging out with my friends and on the weekends I go home and bond with my family.</td>
<td>08 - Venus</td>
<td></td>
</tr>
<tr>
<td>In my free time up here i hang with friends or try and study a little more. on the weekends i usually go home and hang with my family and friends back in town.</td>
<td>03 - Christina</td>
<td></td>
</tr>
<tr>
<td>I usually do my homework during my freetime but when I'm not doing homework I usually hang out with friends.</td>
<td>06 - Sahar</td>
<td></td>
</tr>
<tr>
<td>During my free time I usually do stuff with the guys at the house. We play video games, volleyball, somtimes we go to the movies. If I had more time i would continue doing hobbies thta i like to do.</td>
<td>05 - Jason</td>
<td></td>
</tr>
<tr>
<td>I usually go the the Rec and play basketball or lift weights if i dont have homework or finish it. Hang out with friends and do whatever</td>
<td>04 - Derrick</td>
<td></td>
</tr>
<tr>
<td>I like to chat with friends online or go out with my girlfriend when she comes to visit. I have a lot of free time but I first get all my homework done that way I can fully enjoy the time I have left!</td>
<td>09 - William</td>
<td></td>
</tr>
<tr>
<td>A definite trend here. Two things come up again and again: homework; and hanging out with friends.</td>
<td>00 - Moderator</td>
<td></td>
</tr>
<tr>
<td><strong>Week 10. social networking:</strong> Do you participate in any other social networking sites, like Facebook or mySpace? If so, which one(s), how do you use them, and how much time per week do you spend?</td>
<td>00 - Moderator</td>
<td>Well, I thought this would get everybody to respond, because I already had explored Facebook enough to know that eight of the nine freshmen in this group had a space in Facebook. Since participation in orkut was generally limited to posting responses as if to an assignment, I hoped to get some insight into why the orkut environment did not get the kind of spontaneous participation exhibited in Facebook.</td>
</tr>
<tr>
<td>I participate in Myspace, Facebook and Blackplanet. lol, im all over the place.</td>
<td>06 - Sahar</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>i just recently started using Facebook. I use it usually just to get in touch with people on campus. I'm not addicted like a lot of people whom i speak with. i never got involved with Myspace. I just thought that it was kinda high school but in a lot of ways it is so much like FACEBook that it would be hypocritical for me to say that I didn't like it. Both of these things are good for getting in touch with people.</td>
<td>01 - Angela</td>
<td></td>
</tr>
<tr>
<td>I have a myspace but I usually don't do any thing on that one. I also have a facebook and I probably spend about 14 hours a week talkling to people, making friends, finding events.</td>
<td>05 - Jason</td>
<td></td>
</tr>
<tr>
<td>I use facebook a lot, I check it everytime I get online, its very protected and I think safer than myspace.</td>
<td>09 - William</td>
<td></td>
</tr>
<tr>
<td>I use myspace and facebook. I check them at least twice a day. I mainly use them to keep in touch with friends and meet new people</td>
<td>04 - Derrick</td>
<td></td>
</tr>
<tr>
<td>Despite a couple of reminders to post to this topic, there were only five responses. The individual that did post something indicated they used Facebook and the main use was for social networking—keeping in touch with friends and meeting new people. Jason was the only one that indicated an approximate amount of time spent “Facebooking”: about 2 hours a day! And that amount of time is probably not that unusual.</td>
<td>00 - Moderator</td>
<td></td>
</tr>
</tbody>
</table>
Appendix L. Theoretical underpinnings for the data analysis themes.

The themes, separation, social involvement, and academic involvement, arise directly from review of the relevant literature, and are critically relevant to students’ transition to college life (Astin 1984; Jalomo and Rendón, 2004; Pascarella & Terenzini, 2005; Tinto, 1993). The process of validation, as an internally significant confirmation of identity associated with a community (Astin, 1999; Astin, 1982; Jalomo & Rendón, 2004; Rendón, 1993; Tinto, 1993; Wenger, 1998), was expanded out into the themes of social identity, and community.

The sixth and seventh themes, transitioning, and personal life correlate broadly with separation, social involvement, academic involvement, social identity, and/or community. The theme, personal life, applied in instances within student postings where they mentioned, for example, personal issues that were not necessarily directly related to separation or any other social process associated with the transition to college, but may nonetheless affect students’ experiences. The theme of transitioning consisted of students’ reflection on their overall affective experience in terms of the challenges and rewards of becoming a college student.

The discussion topic, social networking, was not conceived until near the end of the ten-week period of student participation in the study. The researcher formulated this final discussion topic in part because, although literature suggested that use of an alternate OSNS, Facebook, was widespread (Lenhart, Madden, Macgill, & Smith, 2007; Owen, Grant, Sayers, & Facer, 2006; Silverman, 2007; Stutzman, 2006), it was not known whether the use of OSNSs by the student participants in this study paralleled the broader population of college students. Therefore, the social networking topic was established to help understand student use of OSNSs in general, with the expectation that that understanding would provide insight into their use of Orkut in this case study.
### Appendix M. Participant data in personal spaces.

<table>
<thead>
<tr>
<th>Name</th>
<th>About Me</th>
<th>Relationship Status</th>
<th>Birthday</th>
<th>Age</th>
<th>Here For</th>
<th>Children</th>
<th>Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tara</td>
<td>committed</td>
<td>friends</td>
<td>no</td>
<td>hispanic/latino</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derrick</td>
<td>I'm a cool laid back person who likes to meet new people and have a good time</td>
<td>single</td>
<td>[XX-XXX]</td>
<td>18</td>
<td>friends, activity partners</td>
<td>no</td>
<td>african american (black)</td>
</tr>
<tr>
<td>Sahar</td>
<td>I am pretty nice person to get along with, I like to read, draw and hang out with friends and also meet new people. I am also known for be a humourous person.</td>
<td>committed</td>
<td>friends, activity partners</td>
<td>no</td>
<td>african american (black)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angela</td>
<td>I am all about having fun and getting to know new people. I'm easygoing and easy to talk to.</td>
<td>committed</td>
<td>[XX-XXX]</td>
<td>friends, dating (men)</td>
<td>no</td>
<td>african american (black)</td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td>I am a smart and talented guy.</td>
<td>single</td>
<td>friends, activity partners</td>
<td>hispanic/latino</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William</td>
<td>I'm a freshmen at ISU. My current major is Civil/Construction Engineering! I played Soccer, Swimming, and Golf at Hoover High</td>
<td>committed</td>
<td>no</td>
<td>multi-ethnic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carolina</td>
<td>Hello!! I am very outgoing, and laid back. I love to get involved with many things, especially when helps people out. I hold myself to high standards, but I am also the biggest dork :) I am very passionate about my major (civil/environmental engineering) and all the other things I am involved with (SHPE/MAES, and SLG)</td>
<td>single</td>
<td>[XX-XXX]</td>
<td>20</td>
<td>friends</td>
<td>no</td>
<td>hispanic/latino</td>
</tr>
<tr>
<td>Venus</td>
<td>I'm the nicest person anyone will ever meet!!</td>
<td>friends</td>
<td>no</td>
<td>multi-ethnic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christina</td>
<td>My name is Christina, my friends call me CM for short. I'm a freshman at ISU.</td>
<td>friends</td>
<td>no</td>
<td>multi-ethnic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alison</td>
<td></td>
<td>single</td>
<td>no</td>
<td>african american (black)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>languages i speak:</td>
<td>religion:</td>
<td>political view:</td>
<td>humor:</td>
<td>sexual orientation:</td>
<td>fashion:</td>
<td>Smocking:</td>
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<td>--------------------------</td>
</tr>
<tr>
<td>Tara</td>
<td>English (US)</td>
<td>Christian/Protestant</td>
<td>friendly, goofy/ slapstick</td>
<td>contempo-rary</td>
<td>trying to quit</td>
<td>i love my pet(s)</td>
<td></td>
</tr>
<tr>
<td>Derrick</td>
<td>English (US)</td>
<td>Christian/Other</td>
<td>clever/quick witted, friendly, goofy/ slapstick</td>
<td>straight</td>
<td>urban</td>
<td>no socially</td>
<td>i like pet(s)</td>
</tr>
<tr>
<td>Sahar</td>
<td>English (US)</td>
<td></td>
<td>clever/quick witted, friendly, goofy/ slapstick</td>
<td>alternative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angela</td>
<td>English (US)</td>
<td>Christian/Other</td>
<td>very left-liberal</td>
<td>dry/sarcastic, clever/ quick witted</td>
<td>alternative, casual, contempo-rary</td>
<td>no no i love my pet(s)</td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td>English (US), Spanish</td>
<td>Christian/Catholic</td>
<td>libertarian</td>
<td>dry/sarcastic, clever/ quick witted</td>
<td>casual, classic</td>
<td>no socially</td>
<td>i like pet(s)</td>
</tr>
<tr>
<td>William</td>
<td>English (US), French</td>
<td></td>
<td>clever/quick witted</td>
<td>designer</td>
<td>no</td>
<td>i like pet(s)</td>
<td></td>
</tr>
<tr>
<td>Carolina</td>
<td>English (US), Spanish</td>
<td>Christian/Other</td>
<td>not political</td>
<td>friendly</td>
<td>straight</td>
<td>alternative, classic, trendy</td>
<td>no no i like pet(s)</td>
</tr>
<tr>
<td>Venus</td>
<td>English (US)</td>
<td>Christian/Other</td>
<td>dry/sarcastic, clever/ quick witted, friendly</td>
<td>trendy</td>
<td>no no i don't like pets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christina</td>
<td>English (US)</td>
<td>Christian/Other</td>
<td></td>
<td>casual</td>
<td>no no i love my pet(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Living</td>
<td>Hometown</td>
<td>Passions</td>
<td>Sports</td>
<td>Activities</td>
<td></td>
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<td>--------------------------------------------------------------------------</td>
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<td>---------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tara</td>
<td>with roommate(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derrick</td>
<td>alone, with roommate(s)</td>
<td>Toledo, Ohio</td>
<td>Track is my passion</td>
<td>Football and track</td>
<td>I like to hang out and do fun stuff with friends. Anything to have fun</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sahar</td>
<td>alone, with roommate(s)</td>
<td>Des Moines</td>
<td>Drawing, writing, working on my computer and having my me time</td>
<td>Powderpuff football and badminton</td>
<td>Science Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angela</td>
<td>with roommate(s)</td>
<td>Des Moines</td>
<td>food, family, love interests, success</td>
<td>Tennis, Volleyball, swimming, cross country, softball</td>
<td>college events, sports, ball room dancing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td>with roommate(s)</td>
<td>Des Moines, Iowa</td>
<td>Cars especially muscle cars and girls.</td>
<td>i like playing soccer</td>
<td>Socializing with my friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>William</td>
<td>with roommate(s)</td>
<td>Des Moines, Iowa</td>
<td></td>
<td>Soccer, Swimming, Golf, Baseball</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carolina</td>
<td>with roommate(s)</td>
<td>Des Moines, Iowa</td>
<td>Coffee, Hello Kitty, Asian things (and people!), chocolate, chick flicks, lauging, music (got to have it!), dancing (when ever you're ready to go!)</td>
<td>Badminton, and volleyball.</td>
<td>Sigma Lambda Gamma (president), Society of Hispanic Professional Engineers (VP), Mexican American Engineers and Scientists (president), SSSP Advisory board, Latino Heritage Month Committee, Multicultural Greek Council (rep), Asian Pacific American Awareness Coalition,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venus</td>
<td>with roommate(s)</td>
<td>Des Moines, Iowa</td>
<td>Dancing and singing</td>
<td>Track and Field</td>
<td>Dancing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christina</td>
<td>with roommate(s)</td>
<td>Des Moines, Iowa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alison</td>
<td>with roommate(s), with parents</td>
<td>Des Moines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>books:</td>
<td>music:</td>
<td>tv shows:</td>
<td>movies:</td>
<td>cuisines:</td>
<td></td>
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</tr>
<tr>
<td>Tara</td>
<td>i'm open to anything as long as it's not screaming and i can't understand it</td>
<td>the mask of zorro, mean girls, 40 year old virgin, any kind of western....</td>
<td>Friday</td>
<td></td>
<td>anything mexican</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derrick</td>
<td>I don't really read much</td>
<td>Dave Chapelle, Family Guy, Futurama, and Law and Order: SVU</td>
<td>Friday</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sahar</td>
<td>Too many</td>
<td>Mostly R&amp;B and anything that has a good beat to it.</td>
<td>C.S.I. nip/tuck</td>
<td>Love and Basketball</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angela</td>
<td>all of my class text books, anything by Terry Mcmillan</td>
<td>Mtv, Degrassi, Seinfeld, King of Queens, all of the Nick at Nite shows</td>
<td>Scary, romantic, comedies</td>
<td>Chinese, Seafood, Pasta, anything that tastes great. Love the Cheesecake Factory.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td>all stephen king</td>
<td>all except heavy metal.</td>
<td>that 70's show</td>
<td>fast and the furious</td>
<td>enchiladas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>William</td>
<td>Da Vinci Code, and Angels and Demons</td>
<td>Everything except rock and opera</td>
<td>Chappelle Sow</td>
<td>Too many to choose</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carolina</td>
<td>The Bonesetters Daughter, The Transall Saga, others too many!!</td>
<td>the shows I used to watch before college: Gilmore Girls and Nip Tuck</td>
<td>Pride and Prejudice, I am Sam, 10 Things I Hate About You, A Walk to Remember, 13 Going on 30, The Day After Tomorrow, Memoirs of a Geisha, Anna and the King</td>
<td>Mexican, Salvadoran, Chinesse, Thai, Indian,</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Venus</td>
<td>R&amp;B Punk Rock Hip Hop</td>
<td>Passions Days of our Lives Girlfriends Flavor of Love</td>
<td>Grease Love and Basketball Romeo Must Die The Brothers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christina</td>
<td>i love music. i have many artists that i like...too many to try and name!</td>
<td>LB, The Hills, CSI, Law and Order SVU, and a few others!</td>
<td>Comedy, Action, and some Chick Flicks</td>
<td>American, Italian and Mexican</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Alison</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Email</td>
<td>AIM</td>
<td>MSN</td>
<td>City</td>
<td>State</td>
<td>Education</td>
<td>High School</td>
</tr>
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</tr>
<tr>
<td>Tara</td>
<td>••••@—.edu</td>
<td></td>
<td></td>
<td>IA</td>
<td></td>
<td>Some College</td>
<td>LHS, Iowa</td>
</tr>
<tr>
<td>Derrick</td>
<td>••••@—.edu</td>
<td></td>
<td></td>
<td>Des Moines</td>
<td>Ia</td>
<td>Bachelor's Degree</td>
<td>Des Moines Lincoln High School, Iowa</td>
</tr>
<tr>
<td>Sahar</td>
<td>••••@—.edu</td>
<td></td>
<td></td>
<td>Des Moines</td>
<td>Iowa</td>
<td></td>
<td>Lincoln High School</td>
</tr>
<tr>
<td>Angela</td>
<td>••••@—.edu</td>
<td></td>
<td></td>
<td>Des Moines</td>
<td>Iowa</td>
<td></td>
<td>East High</td>
</tr>
<tr>
<td>Jason</td>
<td>••••@—.edu</td>
<td></td>
<td></td>
<td>Des Moines</td>
<td>Ia</td>
<td>Some College</td>
<td>Lincoln High School, Iowa</td>
</tr>
<tr>
<td>William</td>
<td>••••@—.edu</td>
<td>#### ###</td>
<td># ERP</td>
<td>Urbandale</td>
<td>Iowa</td>
<td>High School</td>
<td>Hoover High, Iowa</td>
</tr>
<tr>
<td>Carolina</td>
<td>••••@—.edu</td>
<td># ERP</td>
<td># ERP</td>
<td>Ames</td>
<td>Iowa</td>
<td>Some College</td>
<td>North High School, Iowa</td>
</tr>
<tr>
<td>Venus</td>
<td>••••@—.edu</td>
<td></td>
<td></td>
<td>Des Moines</td>
<td>Iowa</td>
<td>Some College</td>
<td>Roosevelt High School, Iowa</td>
</tr>
<tr>
<td>Christina</td>
<td>••••@—.edu</td>
<td></td>
<td></td>
<td>Ames</td>
<td>IA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alison</td>
<td>Ames</td>
<td></td>
<td></td>
<td>Iowa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Photo</td>
<td>Occupation</td>
<td>Industry: Company</td>
<td>Title: Description</td>
<td>Work Phone</td>
<td>Career Skills:</td>
<td>Career Interests:</td>
</tr>
<tr>
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</tr>
<tr>
<td>Tara</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derrick</td>
<td></td>
<td>Salesman</td>
<td>Consumer Goods, Furniture</td>
<td>Best buy Car Audio I work in the Car Audio department. I sell speakers, radios, gps, satellite radio.</td>
<td>515-221-0669</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sahar</td>
<td></td>
<td>Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angela</td>
<td></td>
<td>NA</td>
<td>Agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td></td>
<td>Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William</td>
<td></td>
<td>Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carolina</td>
<td></td>
<td>Student/Forest Service intern</td>
<td>Construction, Civil Engineering USDA-Forest Service-Utah Engineering intern</td>
<td>Project management Project management group leader self motivator USDA Forest Service, EPA (Environmental Protection Agency) DNR (Department of Natural Resources) *Anything to get me working in different countries!!!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Venus</td>
<td></td>
<td>None</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Christina</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Alison</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Personal</td>
<td>ideal match:</td>
<td>first thing you will notice about me:</td>
<td>height:</td>
<td>eye color:</td>
<td>hair color:</td>
<td>build:</td>
<td>body art:</td>
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<td>-----------</td>
</tr>
<tr>
<td>Tara</td>
<td></td>
<td></td>
<td>5 feet 7 inches</td>
<td>brown</td>
<td>dark brown</td>
<td>slim</td>
<td>pierced</td>
</tr>
<tr>
<td>Derrick</td>
<td>cool, smart, funny, and outgoing</td>
<td>I’m Black</td>
<td>6 feet 0 inches</td>
<td>brown</td>
<td>black</td>
<td>athletic</td>
<td>attractive</td>
</tr>
<tr>
<td>Sahar</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pierced</td>
</tr>
<tr>
<td>Angela</td>
<td>Always a Surprise</td>
<td>someone I can have a conversation with my eyes or smile</td>
<td>5 feet 8 inches</td>
<td>brown</td>
<td>black</td>
<td>pierced</td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>pierced</td>
</tr>
<tr>
<td>Carolina</td>
<td>Back in school!</td>
<td>driven always smiling, always working on something</td>
<td>5 feet 6 inches</td>
<td>brown</td>
<td>black</td>
<td>pierced</td>
<td>average</td>
</tr>
<tr>
<td>Venus</td>
<td></td>
<td>Morris Chestnut</td>
<td>I smile a lot</td>
<td>hazel</td>
<td>black</td>
<td>slim</td>
<td>pierced</td>
</tr>
<tr>
<td>Christina</td>
<td>???</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alison</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turn ons:</td>
<td>Turn offs:</td>
<td>My idea of a perfect first date:</td>
<td>From my past relationships I learned:</td>
<td>Five things I can't live without:</td>
<td>In my bedroom you will find:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
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<td>----------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td>----------------------------------------------</td>
<td>--------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tara</td>
<td>Dancing, sarcasm</td>
<td>Be careful who you trust</td>
<td>Lip gloss, la hacienda, pumas, music, and my hair straightener</td>
<td>Bright colors everywhere</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Derrick</td>
<td>Dancing, flirting, thunderstorms</td>
<td>Go to a nice restaurant or out on the riverfront with some candles.</td>
<td>Nice guys finish last.</td>
<td>My family and God</td>
<td>Normal things</td>
<td></td>
<td></td>
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<tr>
<td>Sahar</td>
<td></td>
<td>Just getting to know one another</td>
<td>You should never settle. I learned not to expect everything but to know that I should expect and deserve most things</td>
<td>Food, my family, fluffy blankets, chap stick, good pair of jeans</td>
<td>Bed, pictures of friends and family, really good color scheme, various stuffed animals and such</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angela</td>
<td>Flirting, intelligence</td>
<td>a guy that comes on too strong</td>
<td>You should never settle. I learned not to expect everything but to know that I should expect and deserve most things</td>
<td>Food, my family, fluffy blankets, chap stick, good pair of jeans</td>
<td>Bed, pictures of friends and family, really good color scheme, various stuffed animals and such</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jason</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>William</td>
<td>Intelligence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carolina</td>
<td>Assertiveness, dancing, intelligence, power, thrills, thunderstorms</td>
<td>Original</td>
<td>Haven't really had past relationships</td>
<td>Music, laptop, food, dancing planner</td>
<td>Hello Kitty EVERYWHERE</td>
<td></td>
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<tr>
<td>Venus</td>
<td></td>
<td>Going to a nice comfortable restaurant setting and then go on a walk around Grays Lake</td>
<td>That I need to stay true to myself and do things for me and no one else.</td>
<td>Chocolate, My Family, My 2best friends, My music, My mirror</td>
<td>CDs, Posters, Pictures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christina</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alison</td>
<td></td>
<td></td>
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</tbody>
</table>
Appendix N. Participant Connections

Connections among student participants based on establishment of the status of “friend” in Orkut (top left) and Facebook (top right), as well as pre-college connections (bottom). Note: Carolina was the peer mentor.
Appendix O. Documentation of institutional approval of research involving human participants.

**SECTION I: GENERAL INFORMATION**

| Principal Investigator (PI): Rex Heer | Phone: 515-294-8072 | Fax: 515-294-8089 |
| Degrees: B.A. Arch. | Correspondence Address: 1200 Communications Bldg. | |
| Department: Curriculum and Instruction | Email Address: rex@iastate.edu | |
| Center: | College: Human Sciences | |
| PI Level: | Faculty | Staff | Postdoctoral | Graduate Student | Undergraduate Student |

Title of Project: Evaluation of a Virtual Community Environment (VCE) for Development and Expression of Attributes of Self-identity, Culture, and Community

Project Period (Include Start and End Date): [mm/dd/yy][08/16/06] to [mm/dd/yy][04/15/07]

**FOR STUDENT PROJECTS**

Name of Major Professor/Supervising Faculty: [Redacted]

Phone: 515-294-5343

Department: Curriculum and Instruction

Email Address: cph@iastate.edu

Type of Project: (check all that apply)

- [x] Research
- [x] Thesis
- [ ] Dissertation
- [ ] Class project

- [ ] Independent Study (490, 590, Honors project)
- [ ] Other. Please specify: ______

**KEY PERSONNEL**

List all members and relevant experience of the project personnel. This information is intended to inform the committee of the training and background related to the specific procedures that the each person will perform on the project.

<table>
<thead>
<tr>
<th>NAME &amp; DEGREE(S)</th>
<th>SPECIFIC DUTIES ON PROJECT</th>
<th>TRAINING &amp; EXPERIENCE RELATED TO PROCEDURES PERFORMED, DATE OF TRAINING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rex Heer, B.A. Architecture</td>
<td>Principal investigator</td>
<td>ISU Human Subject Training, 2/4/04</td>
</tr>
<tr>
<td>Dr. Connie Hargrave</td>
<td>Major professor</td>
<td>4/4/05 01/27/63 X</td>
</tr>
</tbody>
</table>

Add New Row

**FUNDING INFORMATION**

- [ ] Internally funded, please provide account number:

- [ ] Externally funded, please provide funding source and account number:

Research Assurances 12/01/2005
To be considered a registry: (1) the individuals must have a common condition or demonstrate common responses to questions; (2) the individuals in the registry might be contacted in the future; and (3) the names/data of the individuals in the registry might be used by investigators other than the one maintaining the registry.

☐ Yes  ☐ No  Does this project establish a registry?

If “yes,” please provide the registry name below.

[Blank space for registry name]

Checklist for Attachments

The following are attached (please check ones that are applicable):

☐ A copy of the informed consent document
☐ A copy of the consent form if minors will be enrolled
☐ Letter of approval from cooperating organizations or institutions allowing you to conduct research at their facility
☑ Data-gathering instruments (including surveys)
☐ Recruitment fliers, phone scripts, or any other documents or materials the subjects will see

Two sets of materials should be submitted for each project—the original signed copy of the application form and one copy and two sets of accompanying materials. Federal regulations require that one copy of the grant application or proposal be submitted for comparison with the application for approval.

FOR IRB USE ONLY:

Initial action by the Institutional Review Board (IRB):

☐ Project approved. Date: 21 November 2006
☐ Pending further review. Date: 
☐ Project not approved. Date: 

Follow-up action by the IRB:

[Blank space for IRB approval signature]  5 November 2006

IRB Approval Signature  Date

SECTION III: ENVIRONMENTAL HEALTH AND SAFETY INFORMATION

☐ Yes  ☐ No  Does this project involve human cell or tissue cultures (primary OR immortalized), or human blood components, body fluids or tissues? If the answer is “no”, please proceed to SECTION III: APPLICATION FOR IRB APPROVAL. If the answer is “yes,” please proceed to Part A: Human Cell Lines.

PART A: HUMAN CELL LINES

☐ Yes  ☐ No  Does this project involve human cell or tissue cultures (primary OR immortalized cell lines/strains) that have been documented to be free of bloodborne pathogens? If the answer is “yes,” please attach copies of the documentation. If the answer is “no,” please answer question 1 below.
Appendix P. Letter of informed consent.

Dear Science Bound Program Participant,

I am inviting you to participate in a research project to study the potential for emerging communications technologies to help build connections and a sense of community among ethnic minority college freshman, who participated in an extra-curricular college preparatory program in high school. I am particularly interested in understanding the development of a “sense of belonging” within the university community.

This research is part of my Master’s thesis in the Department of Curriculum and Instruction at Iowa State University. I am inviting you to participate in this study because you are a first-semester ISU student that participated in the high school Science Bound program.

If you agree to participate, you will be asked to join a private online community, create a simple blog, and write your reflections on several broad topics, such as, “How are classes going?” Your involvement is expected to take about ten to twenty minutes per week for about eight weeks.

I hope that the information gained in this study will benefit future Science Bound program participants by providing insight into the potential for adapting new forms of social software in ways that may contribute to student success. Although there may be no direct benefit to you, I hope that your participation will help you develop a stronger sense of belonging as you transition into life in the university community.

I will keep a record of the online submissions of all participants, but all individual names and personal identifiers will be replaced by code names to ensure confidentiality. The code names will be assigned by—and only known to me. If the results are published, your identity will remain confidential. Your participation in this study is completely voluntary and there is no penalty if you do not participate. If you do agree to participate, you may withdraw at any time without penalty or loss of benefits to which you are otherwise entitled.

You are encouraged to ask questions at any time during this study. For further information about the study contact Rex Heer at (515) 294-6072, rex@iastate.edu; or Connie Hargrave, (515) 294-5343, cph@iastate.edu. Questions or concerns about your rights as a research participant rights may be directed to the IRB Administrator, (515) 294-4566, jes1959@iastate.edu, or Diane Ament, Director, Office of Research Assurances (515) 294-3115, dament@iastate.edu.

Sincerely,

Rex Heer

Your signature indicates that you voluntarily agree to participate in this study, that the study has been explained to you, that you have been given the time to read the document and that your questions have been satisfactorily answered.

___________________________  ____________________________  ____________
Participant Name (printed)   Participant signature    Date
ACKNOWLEDGEMENTS

I would like to take this opportunity to express my thanks to those who helped me to bring this thesis to fruition. First and foremost, Dr. Constance P. Hargrave: thanks for knowing just the right amount of nurturing I needed; and for challenging me to do the best I could. Thanks also to my other committee members, Dr. Lori Patton, and Dr. James McShay. Also, I thank the participants with whom I shared significant learning in all of my graduate program classes.

A very special thanks goes to LaDan Omidvar, my spouse, who encouraged me to enroll in the graduate program—and maintained her support throughout the [very long] process. Last, to my mother, Hollys Heer, who died five months ago: thanks for always encouraging me and my siblings to follow our passions.