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Social Media in Higher Education: A literature review and research directions.

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SOCIAL MEDIA IN HIGHER EDUCATION

a literature review and research directions

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TABLE OF CONTENTS

INTRODUCTION	1
BECOMING SOCIAL	3
TYPES OF SOCIAL MEDIA TECHNOLOGY USE	4
EXTENT OF SOCIAL MEDIA TECHNOLOGY USE	5
RESEARCH ON THE SOCIAL DYNAMICS AND EFFECTS OF SOCIAL MEDIA TECHNOLOGY USE	9
PERILS OF SOCIAL MEDIA	16
PROMISE OF SOCIAL MEDIA	18
SUMMARY & IMPLICATIONS	23
REFERENCES	26

DATA

NATIONAL POLL ON SOCIAL MEDIA IN COMMUNITY COLLEGES	7
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INTRODUCTION

Social media [technology] has become a growing phenomenon with many and varied definitions in public and academic use. Social media generally refer to media used to enable social interaction. For our purposes, the term social media technology (SMT) refers to web-based and mobile applications that allow individuals and organizations to create, engage, and share new user-generated or existing content, in digital environments through multi-way communication. It is important to note the difference between user-generated content, which is non-traditional media developed and produced by individual users, and existing content, which is usually traditional media (news, magazines, radio, and television) reproduced for the web. In addition to these features, SMT also contains design elements that create virtual social spaces encouraging interaction, thereby broadening the appeal of the technology and promoting transitions back and forth from the platform to face-to-face engagement.

The use of social media interfaces through computer and mobile devices has become quite widespread, and currently, the two most prominent interfaces are Facebook and Twitter. Facebook allows users to create profiles; allows those user-operated profiles to interact with each other; allows for the expression of interests and the discovery of commonalities between users; and allows users to build and maintain connections and invite others to join a community. In contrast, Twitter is a social media interface that enables users to share a limited amount of user-generated content, quickly and easily, to an extensive number of other users. With this interface, the communication exchange is central, and the creation and sharing of user profiles is not necessary, but Twitter can link to user profiles that exist on other social media interfaces.

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Commonly, the phrase “social networking sites” is used as an umbrella term for all social media and computer-mediated communication, including but not limited to Facebook, Twitter, LinkedIn, and Myspace, as well as the inaugural social networking sites of Cyworld, Bebo and Friendster. Ellison and Boyd (2007) define social network sites as web-based services that allow individuals to construct profiles, display user connections, and search and traverse within that list of connections. Albeit very relevant, social networking is only one layer of SMT. Reminiscent of Winston Churchill's (1939) radio address regarding the actions of Russia, social media technology is complex, much like “a riddle, wrapped in a mystery, inside an enigma” that is continuously being investigated and briefly understood before it changes once more. As each application is experienced, other innovative technologies rapidly emerge, enabling new utilities for users. Over the last ten years, a proliferation of differentiated services have shown this to be true as micro-blogging sites such as Twitter, location-based services like Foursquare, and consumer review platforms including Yelp have all worked collaboratively to provide a totally new and engaged media experience, which has now become more accessible through mobile devices (Reuben, 2008).

The entire range of social media applications noted above share the innate ability to enable social behavior through dialogue – multiple-way discussions providing the opportunity to discover and share new information (Solis, 2008). Therefore, SMT is a vast landscape of software with many different uses by application – uses which are not merely limited to social networking, video sharing, or blogging. Rather, the broad definition of SMT includes the totality of digital products and services enabling on-line, user-generated social behavior and exchanges around primarily user-generated content. This definition of SMT however, does not include educational learning and content management systems, such as Blackboard, eLearning Suite, WebCT, Desire2Learn. These educational platforms serve specific instructional purposes framed by institutions and are not designed to support user-generated content as the primary purpose of exchanges and interactions on the platform. Additionally, they remain inaccessible to the general public who are neither university personnel nor enrolled students.

Despite the widespread use of SMT, little is known about the benefits of its use in postsecondary contexts and for specific purposes (e.g., marketing, recruitment, learning, and/or student engagement). It is critical to begin to examine if and how higher education institutions are incorporating the use of SMT. In particular, to what extent are they using it to connect with students and facilitate their persistence and success?

This review of existing literature on the use of SMT in higher education will provide a baseline sense of current uses nationally, providing a descriptive overview of the phenomenon. Books, academic journals, higher education news, research reports, individual university documents, and blogs and online media were used as sources to conduct this review. Such a broad presentation of the facts and behaviors relevant to this fast-growing aspect of our communication patterns and culture can perhaps begin to challenge the assumptions some researchers and educational practitioners may have about how SMT is used by colleges and college students today.



BY THE NUMBERS

750 million

Number of Facebook users worldwide

100 million

Number of Twitter users worldwide

230 million

Number of tweets sent per day

40 percent

Twitter users who don't actively tweet, but sign in to read others' posts

80 percent

Increase in Tweets since the beginning of 2011

82 percent

Members of the U.S. House of Representatives who have Twitter accounts

\$800 billion

New funding secured by Twitter recently, including \$400 million used to let existing shareholders and employees cash out some of their holdings

\$8 billion

Estimated valuation of Twitter based on that recent funding

\$80 billion

Estimated valuation of Facebook

11.8 million

Number of new Facebook users worldwide in May, down from 13.9 million new users in April, according to the research group Inside Facebook

6 million

U.S. users lost by Facebook in May, in a possible sign of "Facebook fatigue." The company says growth in emerging markets helps offset the U.S. losses.

SOURCE THE FISCAL TIMES 2011

<http://www.thefiscaltimes.com/Articles/2011/09/12/The-Social-Media-Explosion-By-the-Numbers.aspx#page1>

We plan to use this review as a foundation to develop conceptual frameworks that allow us to better capture the role and impact of SMT among college students and postsecondary institutions. We also hope our undertaking of this task can help us move toward the goal of informing colleges about practices that exist across peer institutions and about practices peer institutions consider effective and innovative.

This review first discusses the origins of social media technology and its rapid infiltration into our social norms of communication. Then we document the different ways SMT is currently used in higher education and the extent of SMT use. Next, we examine what past research tells us about the impact of SMT within higher education, particularly the effects on student development and identity, learning, and other academic and social outcomes. Then we offer some ideas for how SMT might be utilized to enhance student success. We then address the challenges and potential perils SMT presents as it becomes more and more prevalent within colleges and among college students. We end with a discussion of the implications of SMT for higher education and scholarship more generally.

BECOMING SOCIAL

Over the last decade, and particularly in the last five or six years, SMT has transformed our thinking about our relationships, our connections with and affinity to others, and the influence and persuasive power of online communities on how we think, organize, and act politically. Since the inception of the Internet and integration of email technology into our personal and work lives, our ways of communicating began to change. However, it was not until the creation of social media interfaces like Facebook, MySpace, Friendster, LinkedIn, YouTube, Twitter and other similar applications that have we seen such a massive harnessing of the potential of the now-pervasive online connectivity in our everyday lives.

Unlike the communication functions of other online technologies, SMT in particular has provided a virtual landscape mirroring familiar elements of community as we understood and experienced it prior to the existence of such technologies. Social media technology links people together in ways that resemble traditional feelings of connection, belonging, loosely defined memberships, exchange of feelings and ideas, and the reporting of experiences and actions. Indeed, some suggest SMT has suddenly lowered the costs of collaborating, sharing, and producing, thus providing revolutionary new forms of interaction and problem-solving (Shirky, 2010). We can now create, maintain, and access both well-defined and amorphously defined communities online, while also using the social media technology as a tool to fluidly transition between online and face-to-face contact via friendships, planned activities, and other more formal organizational affiliations.

One of the most powerful social media platforms is Facebook. Initially, Facebook was privately conceived within and navigated through the social networks of students at Harvard, and subsequently at other elite universities— Princeton, Yale, and Stanford. If we consider the birth of this particular social media interface at Harvard, we can recognize it as a telling example of how components of a university's social "community" were rapidly transferred onto this online platform. Since its inception, this interface has expanded across multiple college communities and then quickly encompassed a wider range of connected networks of individuals and groups around the world. Today, the adoption of social media technology now stretches across the globe,

integrating into the lives of individuals of diverse social, national, racial and ethnic, cultural, and socioeconomic backgrounds.

Traditional-aged college students have embraced social media technology; it has become a major part of their everyday lives. In this way, the boundaries between online and “real-world” communities are rapidly stretching if not completely deteriorating. Particularly, as we consider the generation for whom such social media technology exchanges have existed their entire lives, there is a fluid interchange between digital and physical experiences. For this generation, SMT is a primary means of communication and information seeking, and possibly, a central component of their identity and community building. In a 2008 interview, Professor of Psychiatry at UCLA, Dr. Gary Small, suggests that these “digital natives”— young people born into a world of laptops and cell phones, text messaging and tweeting — spend, on average, more than eight hours a day exposed to digital technology (Lin, 2008). As result, digital natives may experience fundamentally different brain development that favors constant communication and multitasking (Prensky, 2001; Small & Vorgan, 2009).

Given this insight, SMTs are reshaping the way students communicate generally and within their college communities. Recent research presented in this report points to some findings on how students’ use of social networking tools for academic purposes increases their engagement in college. Postsecondary institutions should consider more opportunities to seek creative ways to use SMT in effort to reach out to students and strengthen their ties to the institution. More than ever, educators need to know how to skillfully negotiate these technologies to develop academic college-based networks

that can help students succeed. In that regard, understanding the types and extent of use of SMT in higher education may be helpful.

TYPES OF SOCIAL MEDIA TECHNOLOGY USE

Nearly all of what is widely known about types of SMT use in higher education has been documented in literature describing four-year colleges and universities, where it tends to be utilized as a la carte communication tools for stand-alone departments, administrative offices, and individual faculty rather than being part of a larger, more systemic institutional commitment to the use of SMT. For instance, some admissions offices have begun to use student blogs to showcase current student experiences as a recruitment tool for prospective students (Harris, 2008; Mattson & Barnes, 2009; Rudolph, 2007; Tucciarone, 2009; Wandel, 2008; Violino, 2009). Institutions hire current students or student volunteers as virtual ambassadors to share their day-to-day lives and answer questions in efforts to introduce and personalize the student experience on campus for potential students. According to Rudolph (2007), this is an effective public relations strategy because it is appealing to millennial generation students (18-29 years of age) for whom personal, authentic, and real-time engagement with their institutions has become more of an expectation. However, a recent study also noted that the blogs colleges use could be much more engaging: Many do not offer e-mail subscriptions to blog posts or accept comments from readers, both of which severely limit two-way engagement (Barnes & Lescault, 2011).

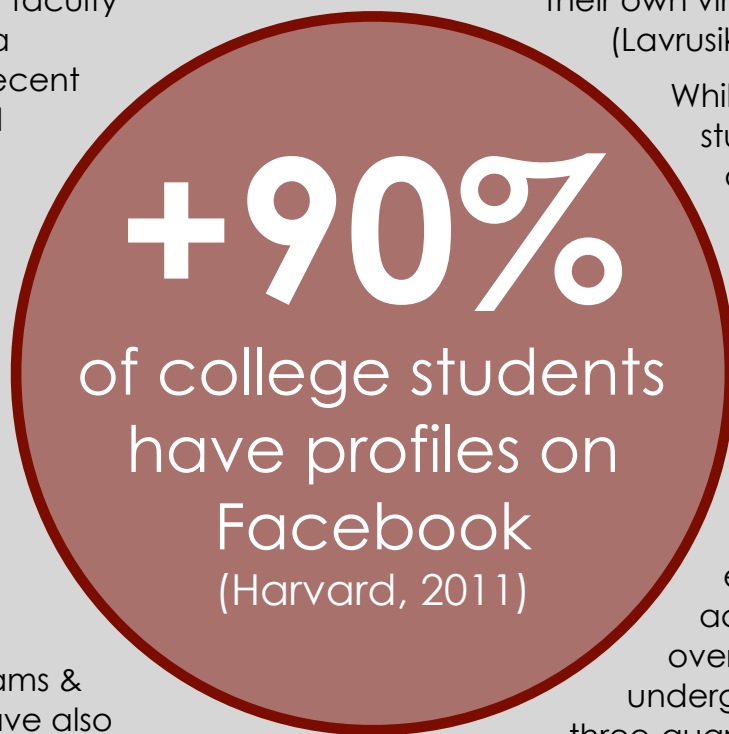
Twitter has provided an opportunity for institutions to create live, up-to-the-minute notices of commencement programs, homecoming events, class reunions, and live chat sessions (Willburn, 2008) as well as campus emergency alerts (Swartzfager, 2007). In cases of institution-level presences in social

spaces (i.e., college or university user profile) some colleges and universities have utilized podcasts, video blogs, and webcasts to share the work of students, faculty, visiting scholars, and alumni with the broader world. Tweeting – the function of a status update (tweets) by users of the Twitter platform – has also found its place prominently in online courses as a discussion medium for faculty and students (Dunlap & Lowenthal, 2009). Additionally, many NCAA member-institutions have implored student athletes, coaches and athletic offices to utilize Twitter and Facebook as platforms to engage with fans (Watson, 2009).

College and university faculty have also used blogs as a pedagogical strategy. Recent studies have investigated the use of blogs in academic disciplines including the sciences (Brownstein & Klein, 2006), language learning (Ducate & Lomicka, 2005), teacher education (Deng & Yuen, 2007; Loving, Schroeder, Kang, Shimek & Herbert, 2007; Ray & Coulter, 2008; Stiler & Philleo, 2003; Williams, 2009), and business (Williams & Jacobs, 2004). Faculty have also created Facebook profiles to connect with their students in a more personable and informal space (Sturgeon & Walker, 2009). This has further led to the employment of developing communities on Facebook as groups for course offerings that previously used web-based forums for discussion (Schroeder & Greenbowe, 2009). Although popular perception may be that the use SMT for improving pedagogical practices and experiences is limited relative to its use for

other purposes (i.e., recruitment, marketing, and alumni relations), no studies have actually documented the extent of each type of use in relation to each other.

Lastly, Alumni affairs offices have made efforts to reconnect graduates to one another, find jobs, and fundraise through popular social networking sites like Facebook, Twitter, and LinkedIn. Some institutions have gone so far as to develop social networking sites through community-building platforms such as Ning as well as their own virtual networks on university servers. These platforms allow users, both individual and organizational, to use the existing technological infrastructure to create their own virtual communities (Lavrusik, 2009).



While our knowledge of and studies of the various types of social media used in higher education are based on the four-year college sector, virtually no research at all has focused attention on the ways SMT is used in community colleges. In fact, the two-year sector, together with the entire for-profit sector now actually account for well over half of all undergraduates and nearly three-quarters of beginning college students (Deil-Amen, 2011). Therefore, these institutions and the diverse populations of students they tend to serve (older, working, commuting, racial/ethnic minorities, lower-income) are therefore neglected in this regard. We know very little about the use of social media technology at these institutions and among these students. Recent efforts by our project team have attempted to address

this gap (see a full description of the *National Poll on Social Media in Community Colleges* page 7).

EXTENT OF SOCIAL MEDIA TECHNOLOGY USE

Given the above-noted basic knowledge about types of SMT use (the various ways in which SMT is being used in postsecondary education), how extensive is this use? More specifically, by whom and how often is SMT being used within higher education and the broader world? Are there variations in usage patterns, and what implications might they have for various stakeholders in postsecondary education? To answer these questions we further investigate the extent of SMT use generally and in higher education.

General Demographics

Smith's (2011) study for the Pew Internet and American Life Project reports that African Americans and Latinos had equal or greater rates of usage of social media platforms, often from cellular devices, as compared to White Internet users in 2010. In a separate Pew report on Asian Americans and technology, Rainie (2011) reports Asian Americans as the leaders in overall Internet usage, mobile connectivity through cell phones, laptops, and wireless devices, but they remain on par with social media engagement as other minority groups.

Additional Pew research conducted by Jansen (2010) notes, expectedly, that individuals with greater income spend more time on connected devices, and in many cases, increased use is due to the disparity in ownership of internet-ready devices beyond the mobile phone. However, Flowtown (2010) reports that this trend does not hold true regarding social media usage. In its analysis of Google Ad Planner Data, Flowtown found that a curve exists for users of SMT with regard to income. Those who made less than \$24,000 per year were less social than were those making between \$25,000-\$74,000 – who led all users – but were more social than users making > \$100,000. When determining the effects of education on social media usage, Flowtown found a similar curve, where SMT usage peaked for users with some college – which may include current college students – and tailed off on either end for users with less than some college or with a bachelor's degree and higher.

Lastly and not surprisingly, across the U.S. the use of SMT varies greatly by age, with older generations participating less often than younger ones. Older generations have been slower to embrace SMT, struggling somewhat to keep pace with younger cohorts. However, they have recently begun making a sharper turn in support of the technology. In 2009, 11% of adults over 30 reported to be engaged online in activities such as blogging. In the same year, 22% of Internet users over 50 reported being engaged on a social networking site (Madden, 2010). Comparatively, younger generations remain by far the greatest beneficiaries and users of SMT. Among users 18-29 years of age, 86% are actively engaged in social networking (Lenhart et al., 2010) compared to just 61% of users 30-49 years old, 47% of users 50-64 years old, and only 26% of users over 65 years of age (Madden, 2010).

College-Age Users

The generation of 18-29 year old users has been referred to by many names – millennials, avant-garde, and most simply, generation Y, many of who are now traditional college-aged adults. This group of 18-29 year old users has been crowned as digital natives, a generation who has never known a world without the Internet (Jones et al. 2010; Palfrey & Gasser, 2008; Prensky, 2001;



NATIONAL POLL ON SOCIAL MEDIA IN COMMUNITY COLLEGES

In a recent effort, our “Getting Connected” team polled community colleges nationwide regarding their experience with social media technology and the value they perceived social media technology to have for their institutions. This poll represents one of the first attempts to focus exclusively on gauging social media use among community colleges, and 224 institutions responded to the poll. In addition to the survey-like questions, two-year college institutional leaders were also offered the opportunity to describe in detail the ways their institutions are using social media and the ways they see social media having value now and in the future.

A content analysis of those responses reveals that the use of social media technology as a one-way communication tool currently dominates all other uses. For the most part, among the institutions responding, the vast majority reported that they use social media for one-way communication in the form of Facebook pages (specifically mentioned by nearly half the colleges) and Twitter (mentioned by more than one quarter of the colleges) to send messages to students. They utilize wall posts, event notifications, and tweets to inform students about upcoming events and activities, athletic games and competitions, deadlines, reminders, general college announcements, school closings due to inclement weather or other reasons, alerts, and emergencies. The use of social media in recruitment, marketing, or managing the college’s brand image (mostly through one-way communication) was the next most frequent purpose listed. Surprisingly, the use of social media to connect with alumni and donors and for other development purposes was listed by only 15 of the colleges that responded. Finally, the use of social media to respond to student inquiries was noted by only a small handful of the colleges.

YouTube was also specifically noted by approximately one-tenth of the community colleges. For some, the purposes for the colleges’ use of YouTube were unclear, but in addition to its use for marketing, the use of YouTube appeared to have a more academic, lesson-oriented focus. Faculty members were more connected to YouTube and blogs than to Twitter or Facebook in the leaders’ descriptions. LinkedIn was mentioned by less than 5 percent of responding institutions, and most of that activity seemed to be among staff and administrators.

Overall, 22 colleges emerged as exceptions to the overall patterns noted above. These colleges described using social media for reasons beyond the dominant functions just described. In particular, they noted more academic and student success purposes. The ways these colleges described their multiple and more distinctive uses of social media are listed in Table 1.

Table 1. Comprehensive List of Ways Colleges Described Uses of Social Media

LEARNING/ACADEMIC	STUDENT SUPPORT	COMMUNITY BUILDING	EXPANDING CONNECTIONS
Faculty communicate with and engage students in their courses	Provide student support	Build and strengthen campus community	Connect students with alumni
Construct links between Facebook and Blackboard so students can check class assignments and receive course announcements	Offer workshops on financial aid	Increase sense of belonging for students taking online courses	Conduct outreach to community
Create stronger learning communities	Resolve issues and allow students and the community to provide feedback to the college	Actively encourage and facilitate student involvement and participation in activities	
Post portions of lectures for downloading	Offer orientation	Invite participation in campus-wide blogs (i.e., student blogs, president's blog, blog focused on innovation in instruction).	
Facilitate class discussion and group project work	Provide mentoring to students		
Facilitate study groups and other in-class collaboration	Help to navigate the registration process		
Boast about students' academic accomplishments	Aid in improving student retention		
Recruit students into specific academic programs			

... continued on page 11

Prensky, 2005; Small & Vorgan, 2009). These young media consumers are more connected than any previous generation, and they have an expectation to remain that way in all aspects of their lives (Prensky, 2005).

An important dimension to understand when evaluating usage within this demographic is the wide array of user personalities engaging in social media conversations. Given the huge proportion of users in this age range, variation abounds in this vast digital space. Among millennial college students, for instance, multiple collections of Internet-minority groups exist rather than a homogenous group of age-restricted users (Jones et al. 2010), and the variety of subgroups of millennial students use social media quite differently. For example, one subgroup might consist of infrequent users of these technologies, while another subgroup might make frequent use of one or two particular technologies and a larger subgroup might make extensive and frequent use of a variety of the latest technologies. Furthermore, Palfrey and Gasser (2008) note that the general online behaviors that comprise these heterogeneous user types run the gamut from identity exploration to media piracy (illegal downloading), entertainment, and social activism – all of which are manifested through socially enabled media.

According to a recent national poll completed by the Harvard Institute of Politics (2011), over 90% of students at four-year colleges reported having Facebook profiles. Based on an additional study (Junco, 2011b), presumably, usage is most robust among first-semester freshmen and sophomores among such students at four-year institutions. College student use of Facebook has been shown mostly to reflect a one-to-many style, in which students create content to disseminate to others. Interactions between students were most often primarily between existing friends rather than new connections and users were most often observing content rather than producing it (Pempek et al., 2009).

Institutional Usage

Moving beyond students to the use of social media by postsecondary institutions, Reuben's (2008) survey on social media usage shows Facebook and YouTube profile creation and use was reported by just over half of the 148 colleges and universities responding in the United States (94%), Australia (1%), Canada (2%), and New Zealand (1%). However, in a more recent study of a proportional national sample of 456 four-year accredited U.S. institutions, 100% report using some form of social media, with Facebook (used by 98%) and Twitter (used by 84%) being the most prominent (Barnes & Lescault, 2011). Similar to our knowledge about the types of social media used, knowledge about the extent of use within community colleges and other two-year colleges is quite limited. However, the Community College Survey of Student Engagement (CCSSE) provides some insight. In particular the 2009 report indicates community colleges almost never communicate with students via social media despite one-quarter (28%) of students' indication that the use of social networking tools makes them feel somewhat or much more connected to their college (p. 8). Additionally, CCSSE (2009) reports the more students use social media technology for academically purposeful activities, the higher their levels of engagement.

The recentness of these studies is but one indication of the paucity of research on the extent of use at the institutional level. Not only is greater insight needed on the descriptive data presented in the aforementioned studies, but also on the intent, strategies, tactics, and effectiveness of the SMT use in institutional and student outcomes. While we have determined what, who, and in part, how often SMT is used, the details on the effects and impacts of SMT have yet to be discussed. In the

next section, we discuss the existing research that has examined these measures both within and outside of postsecondary education.

RESEARCH ON THE SOCIAL DYNAMICS AND EFFECTS OF SOCIAL MEDIA USE

In an effort to understand the effects of what has become arguably the fastest growing advancement in consumer-used computer-based technology, research about social media has crossed disciplines, tending to focus on the social dynamics of the interactions and their impact generally on our lives and ways of communicating. Taken together, these research findings point to a reality in which a) social media provides a rich data source for better understanding social dynamics more generally, and b) social media use has varied effects – effects that are highly dependent on the nuances of exactly how people use social media, in addition to how much they use it.

Some relatively recent research has provided a strong foundation for understanding effects of social media by defining and detailing the socio-technical dynamics of the interactions and relationships that exist within and beyond such platforms. One study, for instance, highlighted differences between weak and strong social relationship ties using data generated from social media. Through a combination of existing Facebook data and survey data of user-provided ratings, Gilbert and Karahalios' (2009) *How strong?* model was able to predict the strength of social ties, that is, the strength of social relationships between

people (see Granovetter, 1973). Not all social relationships are the same, and tie strength can range from weak ties, such as loose acquaintances and work colleagues who exchange ideas or information, to strong ties, such as trusted friends and family who can provide emotional support or help through a crisis. The study utilized social media data from 35 users and a random selection of each of their "friends" for a total of more than 2000 participants.

The strength of ties between users who participated in the study was measured along the following dimensions (with some examples in parentheses): Intensity (total number of wall and inbox messages or photo comments exchanged between a pair of users); Intimacy (use of intimate words on wall or in messages or appearances together in photos or distance between hometowns); Duration (days since first communication); Reciprocal Services (links exchanged or common apps); Structural (mutual friends or groups that both

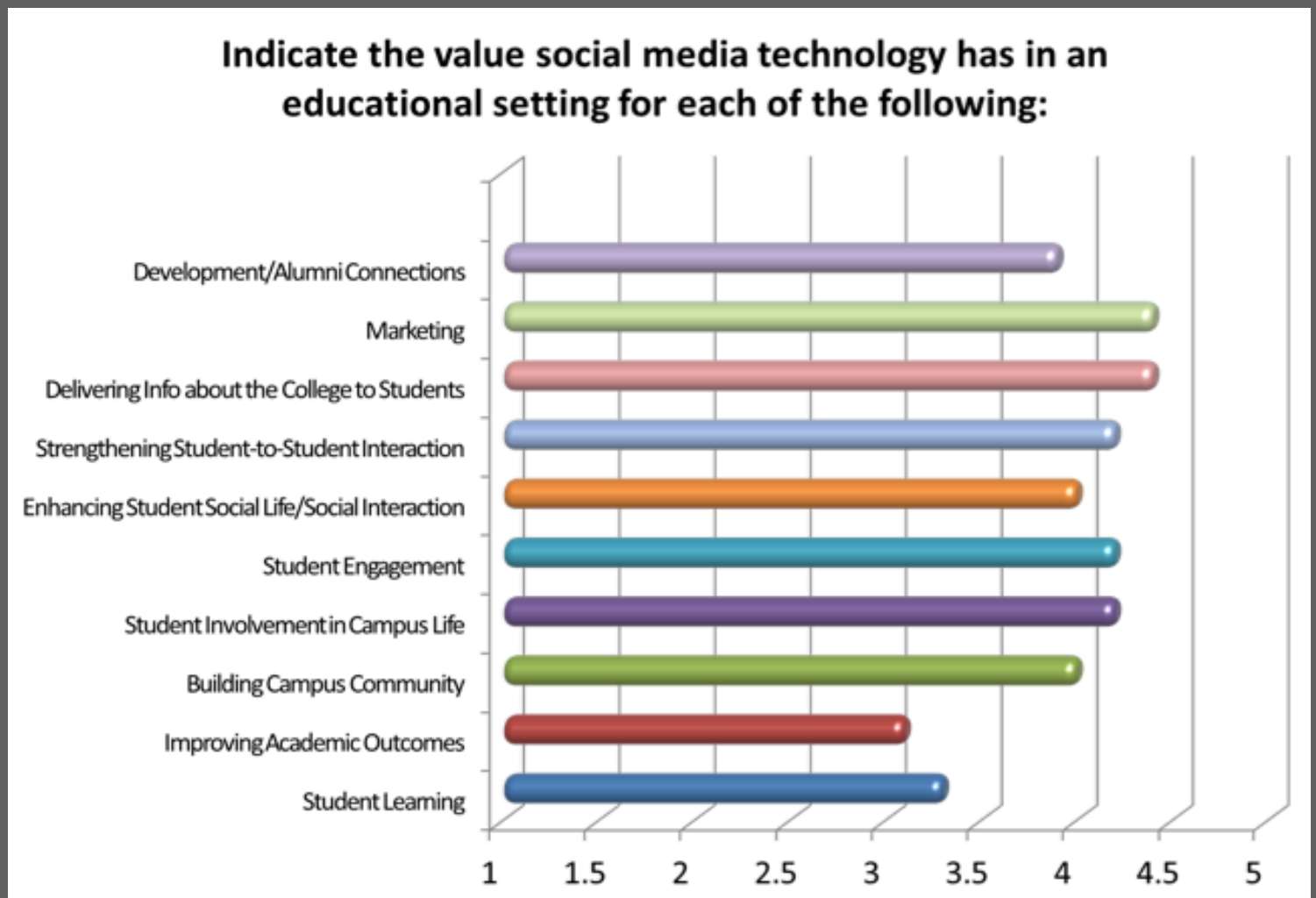
users joined or similarities in interests and other profile fields); Emotional Support (number of positive and negative emotional words or gifts exchanged); and Social Distance (differences in level of formal education attained and political affiliations). The findings of this study reveal the complex multidimensional ways that users relate to one another on an SMT platform, creating and sustaining a range of relationships that vary in strength and in the mechanisms of connection. These researchers show how future models of social tie formation (both on-line and off-line) should consider tie

100%
of four-year accredited
U.S. institutions reported
using some form of social
media in a recent
national study (n = 456)
(Barnes & Lescault, 2011)

Our "Getting Connected" poll also addressed extent of use. Among the 224 community colleges that responded, only 13% reported "substantial" use of social media by their institution, and only 5% reported that their institution devoted "substantial" resources to social media implementation. Overwhelmingly, nearly two-thirds reported insufficient funds to support social media as a primary barrier to expanding their use of SMT. Approximately a quarter of respondents noted resistance among faculty or administrators as a barrier, and lack of staff/faculty access to such technology was also reported as a barrier by approximately a quarter of the respondents.

What was their perception of the value social media could add to their institution and its mission? Figure 1 displays three key findings. First, most community college presidents and other leaders who responded generally saw value in the use of social media. Second, the potential for social media to affect learning and academic outcomes took a backseat to the perceived value of social media for such purposes as enhancing student social engagement, student-to-student interactions, involvement with campus life, and the building of campus community. Third, the greatest value that community college leaders attributed to social media was in the marketing and in the one-way delivering of information about the college to students.

Figure 1. Community College Leaders' Perception of the Value of Social Media to the College and Its Mission.



1 = No value, 2 = Minimal value, 3 = Moderate value, 4 = Substantial value, 5 = Great value

strength to be a continuum with links, or connections, between people very much influenced by the properties or characteristics of those links, not just the presence or absence of the links.

The work of Wimmer and Lewis (2010) has utilized Facebook data to better inform our understanding of social network formation by challenging conventional notions of *racial homophily*, which is the preference for associating with same-race individuals. More broadly, homophily refers to association with others of similarity in identity (education, religion, politics, etc.). Prior social science research has found homophily to be a salient driving force behind the racial homogeneity of people's (non-SMT) social networks. The researchers evaluated the online friendship networks of an entire cohort of over 1600 students at a particular college to see if the theory held true. Their findings determined that racial homophily was not the dominant mechanism of tie formation among these college students. Other mechanisms such as music preferences, geographic origins, socio-economic background, academic major, and most significantly, sharing a dorm room or residence and the tendency to reciprocate a friendship to close or balance a friendship triangle were more important indicators of relationships forged by students online. This is a very different finding than the dominant social networks research in traditional sociology, which tends to emphasize the role of psychological preference for same-race peers.

Essentially, unlike prior conventional surveys or data collecting methods that have relied heavily on self-reported data, social media provided these researchers a data set richer in student background characteristics and social activities and exchanges. Such rich on-line data allowed them to extend what we know about the relative contribution of various

factors to the racially homogenous networks so common in relationship networks more generally. Again, this is another example of how the study of on-line behavior has informed our ability to model more general social behavior.

Burke, Marlow and Lento (2010) move beyond a description of social media dynamics toward an exploration of the effects of social media use on specific outcomes. Also using empirical data from an SMT platform, nearly 1200 participants were recruited through an ad posted on Facebook. The researchers found a link between social networking site activity and specific measures of social well-being related feelings of connection and isolation. The authors define social well-being as the aggregate of three components: 1) bridging social capital – access to new information through a diverse set of acquaintances, 2) bonding social capital – emotional support from close friends, and 3) loneliness – the consequential exclusion from social involvement due to time spent online (see Kraut et al., 1998).

Overall, the study was consistent with previous self-report surveys in finding that social media activity, particularly friend count, was positively related to both forms of social capital and negatively related to loneliness. Users who engaged in more directed communication (the amount of posts, messages, and comments written and received, the frequency of tags and “likes,” and the number of friends with whom communication was initiated) experienced higher levels of bonding social capital and lower levels of loneliness. In contrast, users who engaged in more content consumption (viewing profiles and photos or clicking on stories and news feeds) reported lower levels of bonding and bridging social capital as well as increased loneliness. Generally, older users and male users experienced less bonding

social capital, and men were lonelier than women. Time spent on the site was not found to be a significant predictor of well-being, although it was closely correlated with friend count and the amount of content produced, which was associated with increased bridging social capital.

These findings suggest that social media interactions are relevant to understanding social capital – benefits made possible by the existence of structured social ties (see Coleman, 1988). Furthermore, how one engages with social media can have quite differing consequences for social well-being, with some forms of interaction leading to wider networks of information-rich ties, others leading to stronger networks of trust and emotional support, and still others affecting feelings of loneliness and isolation. As noted above, these results are somewhat consistent with prior studies that have explored social capital dynamics and social networking sites through self-reported use of social media rather than direct analyses of data compiled through the SMT platform. This prior research found that using the internet and Facebook enhanced a student's social capital by facilitating their ability to maintain their existing relationships and also giving them access to new meaningful relationships (Ellison, Steinfield, & Lampe, 2007; Valenzuela, Park, & Kee, 2009).

In particular, Ellison, Steinfield, and Lampe (2007), studying a random sample of 286 Michigan State University (MSU) undergraduate students, had assessed another dimension of social capital in addition to bonding and bridging social capital. They explored “maintained social capital” which is one's ability to stay connected with members of one's pre-established social communities with whom they share an offline connection (i.e. an existing friend, a classmate, someone living near them, or someone they met socially). The results of their analyses showed a

strong association between use of Facebook and the three types of social capital – bridging, bonding, and maintained – with bridging social capital showing the strongest relationship and the use of Facebook to maintain pre-existing relationships overwhelmingly more common than the use of Facebook to make new connections. The researchers also found significant interactions between a lack of bridging social capital and subjective measures of well-being. In other words, students who used Facebook less intensely also reported lower levels of self-esteem and satisfaction along with lower levels of bridging social capital. These results imply use of Facebook might present a mechanism for acquiring bridging social capital to improve psychological well-being for students with low self-esteem and low life satisfaction. Similarly, studies focusing on peer and social interaction found connections were most common among pre-existing friends.

Across disciplines, research related to the effects of social media use on college student academic performance, outcomes, and attainment is quite scarce. However, a few recent studies have focused on the impact of SMT use on academic performance and engagement. The studies have shown mixed results, possibly due to weakness of the self-reported measures, but the findings from a wider range of studies suggest that outcomes can vary depending on the ways in which students engage with the social media

On the one hand, one study has corroborated the idea that SMT negatively affects student academic achievement. A relatively small study of Facebook usage and GPA among 219 students at a large public Midwestern university found the average self-reported GPA of Facebook users to be significantly lower than that of non-Facebook users (Kirschner & Karpinski, 2010). On the other hand, some studies have found social

media use to have no impact on academic performance in college. Two studies found no relationship between self-reported use of Facebook or other social networking sites and self-reported GPA in a sample of students from a public Northeast research university (Kolek & Saunders, 2008) and in a study utilizing three data sets: a sample of over 1000 University of Illinois at Chicago first-year undergraduates, a nationally representative cross sectional sample 14- to 22-year-olds, and a longitudinal panel of 14 to 23 year old American youth (Pasek, More, & Hargittai, 2009)

Furthermore, additional studies on Twitter's impact on both engagement and academic performance show positive effects. A 14 week experimental study of 125 university students found increased grades and increased levels of traditional measures of engagement among students who used the medium compared to their counterparts who did not (Junco et al., 2010). This study showed how Twitter can be leveraged to support students' academic engagement, psychosocial development, and Chickering and Gamson's (1987) seven principles for good practice in undergraduate education, including enhanced faculty-student contact, cooperative and active learning, prompt feedback, maximal time on task, the communication of high expectations, and respect for diversity. The deliberate use of Twitter led to a culture of engagement that deepened interpersonal connections between students as well. Similarly, these findings are consistent with the teaching tips provided by Dunlap & Lowenthal (2009) who used Twitter as an additional social tool to supplement instruction and found that it can encourage free-flowing just-in-time interactions and enhance social presence when utilized in online courses.

Other studies of social media use have focused strictly on its impact on dynamics that have been shown in prior scholarship to indirectly affect grades – college student engagement and involvement. These studies stop short of assessing the direct effect of social media use on grades, but prior research on traditional forms of academic engagement and involvement has emphasized the role of these dynamics in influencing GPA and other academic outcomes. For example, Heiberger and Harper (2008) produced findings that suggest that students who utilized social networking sites such as Facebook were more engaged in offline activities (i.e., studying, face-to-face interaction, work), and they also reported greater life satisfaction and stronger connection to their institutions. In another example, a 2007 study of first-year students and social networking sites conducted by the Higher Education Research Institute (HERI) at the University of California Los Angeles revealed no relationship between time spent on social media and the amount of time spent on academic endeavors, particularly when they compared students who reported spending less than one hour on social networking sites daily and those who report spending more than six hours. However, the study did find a positive relationship between more social media use and higher levels of campus social involvement. Students who were spending more time using social media reported a stronger connection to their institution, felt better about their social life, and were also spending more time on real-life social activities such as interacting with friends and participating in student clubs or groups.

Additional work by Junco (2011a) highlights the fact that it is not just a question of if or how much students engage in social media that matters, but also, the ways in which students engage. He studied over 5000 students at a medium, 4-year, public, residential institution in the Northeast and measured real-world academic and co-curricular engagement using a scale generated from NSSE (National Study of Student Engagement) along with students' estimates of time they spent preparing for class and engaging in co-curricular activities such as involvement in campus clubs



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and organizations, student government, fraternities or sororities, campus publications, intercollegiate or intramural sports, etc. He found that more frequent Facebook use among students does have a negative relationship with such measures of engagement. However the types of activities students engage in while on social media matters. On the one hand, he finds students who use Facebook frequently for non-communicative activities (playing games, posting photos and videos, and checking up on friends) had lower levels of real world engagement offline. On the other hand, more frequent communicative activities on social media (commenting on content and creating or accepting invitations to events) were positively associated with traditional measures of real world engagement.

Junco's findings both confirm and challenge the presumption that social media use jeopardizes traditional engagement as conceptualized by Astin (1984) and Kuh (2009) since he found that, overall, more time invested on Facebook was related to lower real-world academic and co-curricular engagement, yet certain types of social media activity were related to higher levels of real-world engagement. These findings may appear to contradict findings reported by HERI (2007) and Heiberger and Harper's (2008) which reveal that more time spent on Facebook is associated with more engagement in offline activities, such as interacting and connecting with friends and participating in student organizations.

The use of multiple and continuous measures of engagement in the study by Junco (2010) may explain these conflicting findings. When Junco measured the relationship between social media use and overall engagement and academic engagement specifically, he found a negative association. However when he measured the relationship between social media use and co-curricular campus engagement –measures more similar to those used by HERI (2007) and Heiberger and Harper's (2008) – he found a positive association. Furthermore, Junco distinguished between types of social media activity and found these dimensions to

be more powerful predictors of engagement than was frequency of use (time spent on social media). Taken together, these studies add clarification to the ways in which social media use may detract from real-world engagement in some respects and improve engagement in other respects.

Other studies have addressed other areas of interest and revealed SMT to be a space where people explore, express, and reinforce aspects of their personal identity through the expression of self-interests, hobbies, interest groups, political views, and other user preferences (Pempek, Yermolayeva, & Calvert, 2009; Subrahmanyam, Reich, Waechter, & Espinoza 2008; West, Lewis, & Currie, 2009). Studies on race and gender performance revealed similar dynamics. Findings show that profile attributes, preferences, and social group formation on Facebook facilitate student development in these identity areas (Burkhalter, 1999; Byrne, 2007; Castells, 2001; Grasmuch, Martin, & Zhao, 2009; Tynes et al. 2004). These identity-centered studies give credence to the semi-private space of self-expression that social networking sites potentially provide for cultivating existing relationships that may validate or enhance identity development.

Taking the enactment of identity through relationships a step further, Martínez Aleman and Wartman's (2009) book, *Online social networking on campus*, has provided an ethnographic portrait of four residential college students that, they argue, illustrate the sociology of social networking among college students. More specifically, they described ways in which online campus culture is developed, enacted, and resisted. One of the most interesting findings of their study is that college students have found unique ways to use Facebook to craft their identity, to shape campus culture, and to improve communication within and beyond the college campus. Consequently, they urge student affairs practitioners to understand, recognize, accept, and even join students in this new online campus reality.

As a whole, studies of the social dynamics of social media use and their effects on particular outcomes reveals that such interactions do not necessarily remove people from their offline world but may indeed be compatible with traditional forms of engagement and involvement and potentially be used to support relationships, expand and maintain connections, and even enhance well-being and identity development. Many of the studies suggest the idea that particular forms of frequent social media interaction certainly do not limit social relationships. In fact such interactions have been found to enhance existing social relationships and perhaps even increase participation in other off-line realms, a finding consistent with early research on internet use more generally (Wellman et al., 2001). However research on the relationship between social media use and academic outcomes, such as GPA or persistence or degree attainment, is nearly absent altogether or shows limited or mixed findings.

THE PERILS OF SOCIAL MEDIA TECHNOLOGY

Given the high-volume usage of SMT, an obvious and popular concern among faculty, administrators, and parents is the widespread notion that students spend far too much time on nonacademic activities related to the Internet and social media. Countless articles in popular newspapers, periodicals, and blogs have raised these very same concerns (Bart, 2009; Ingram, 2011; Ojalvo, 2011; Schulten, 2009). The most salient concern among scholars, educators, and the public however is related to the effects of social networking sites such as Facebook on the time dedicated to studying and offline activities. As most media is regarded as a source of

entertainment, popular opinion believes it serves only as a distraction and yet another impediment to academic achievement. As noted in the section above, studies on Facebook usage and GPA corroborates this fear (Hernandez, 2011; Junco, In Press; Kirschner & Karpinski, 2010; Phillips, 2011). However, numerous other studies detailed in the section above as well contradict this fear. In particular, findings point to the idea that how social media are used may matter more than how much it is used.

Additional worries from organizations about what, where, when, and how to use social media have also arisen. Organizations are continuously facing challenges of brand management, content development and scheduling, and digital xenophobia. SMT has also been critiqued, especially by educators, for its limitations in providing useful information and resources for its users beyond entertainment value.

Challenges of SMT are also becoming more salient when we consider not just the technology itself, but also the dynamics of the users of the technology. For many administrators and faculty in higher education, understanding the phenomenon of social media technology, and the manifold uses therein, is a challenge in and of itself. For instance, to some, SMT represents a cure-all solution for some systemic issues and individual program and personnel shortcomings. The misleading belief that social media technology can itself rectify pre-existing issues at a structural level is a misnomer. For example, a university communications staff may decide to create a Twitter page to engage students with the expectation of students becoming followers – users connected to and receiving updates from a profile they “follow”. However, without giving students good reason for following the university’s account – by providing content that is relevant or useful to their collegiate experience – they may remain disengaged.

In this way, SMT has expanded upon McLuhan’s (1964; 1967) aphorism of the medium is the message given how media have drastically changed over time. McLuhan espoused the idea that it is not just the content of a message that is important. The medium itself exists in symbiotic relationship with the content. The medium – the media technology and how it is used – shapes the social norms and expectations within a society. Therefore, the medium creates its own structural changes to a society that affect how messages are received and perceived, thereby fundamentally infusing the content with particular parameters of meaning. Contemporary media as a whole has become boundless through the World Wide Web, and SMT in particular has given rise to contexts in which the exchange of user-generated content is king. Less and less frequently are media consumers inundated with one-way messages from brands and corporations to which they cannot respond or from which they cannot escape.

SMT has restored agency to users. SMT allows users to be discerning about what media they engage in based on its relevance to their lives. SMT also allows users to express their opinions in large forums. As an opposing example, had the same university which created a profile on Twitter provided 1) links to students with discounts to the campus bookstore; 2) weather and emergency alerts; or 3) answered financial aid concerns, their impact on actual student engagement would have possibly produced greater results. Furthermore, the underlying premise and plan of action to accomplish measurable SMT goals – or social media engagement strategy – guiding an institution’s ability to stimulate social behavior (e.g., sharing) should be the umbrella under which all social messages can be communicated. For colleges and universities, using SMT as an engagement tool for students may be likely to yield more positive results for institutions that have

pre-existing high-quality programs, services, and initiatives, supported by a sound engagement strategy, through which SMT can amplify their work.

Additional concerns exist regarding personal privacy on social networking sites. Lewis (2011), Wimmer and Lewis (2010), and Lewis, Kaufman and Christakis (2008) have investigated the factors that predicted (or not) privacy settings and preferences among college students on Facebook. In addition, they examined the mechanisms of privacy mobilization. Their findings showed that users are significantly more likely to have private profiles if they are very active Facebook users, if their friends have private profiles, or if they are women. To summarize, social ties between students are often clustered in accordance to students with similar privacy behaviors for their profiles. They also describe two different mechanisms that influence privacy preferences: (1) individuals, independently, make privacy decisions based on their perceptions of safety and of how they want to present themselves to others, and (2) privacy behavior might spread from student to student. Finally, they argue that in order to understand the privacy behaviors in SMT, we must consider the changing nature of the technology, the various users, and the diverse purposes and meaning each type of user attributes to technology. From this research emerges a very complex and potentially troubling panorama of privacy issues.

Furthermore, as Lewis et al. argue (2008), when a new technology such as Facebook is released, there is a high degree of ambiguity over appropriate or desirable norms of conduct—the very definition of this space as public or private is contested. College students, faculty, staff, parents, and Facebook itself each have different and potentially conflicting interests in the way the technology is used. Students are certainly aware that the information they post is “public;” however, all may not recognize the full extent and possible consequences of this display. Slowly but surely, excitement turns into precaution. The technology spreads throughout the population, and users



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The Facebook Project

<http://www.thefacebookproject.com/about/index.html>

American University Center for Social Media

<http://www.centerforsocialmedia.org>

Mobile in Higher Ed

<http://www.dmolsen.com/mobile-in-higher-ed>

Wired Campus

<http://chronicle.com/blogs/wiredcampus>

Higher Ed Live

<http://higheredlive.com>

Facebook in Education

<http://www.facebook.com/education>

CASE Social Media

http://case.typepad.com/case_social_media

FourSquare Universities

<https://foursquare.com/universities>

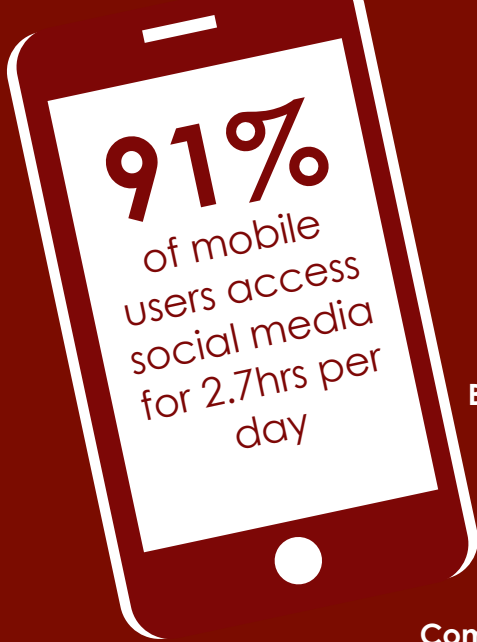
provide more data on their profiles—all the while maintaining the rather permissive default privacy settings, not yet having reason to do otherwise (Lewis et al., 2011). Therefore, users move from excitement and ambiguity to self-regulation. However, rather than the regulation being at once imposed by someone (e.g., institutions, faculty, or parents), it is implicit, normative, and internally negotiated (Lewis et al., 2011). The precautions and solutions to privacy issues in this context are not only unclear, but also continually shifting.

Additional challenges may continue to emerge due to the ever-expanding technological divide between generations of students and university faculty and administrators. As digital natives flood colleges and universities, they bring with them an increasingly high demand for socially engaging information from their institutions. Actors within postsecondary institutions are

challenged to not only understand the aforementioned perils of SMT, but also to consider its promise to affect change. Colleges and universities, then, are faced with either attempting to protect existing institutions by resisting these emerging technologies and the changes they foster among students or embracing the future to which they are leading.

THE PROMISE OF SOCIAL MEDIA TECHNOLOGY

Despite the current dearth of an extensive research base on the effects of SMT on the academic and social outcomes of college students, long-standing theories in the field of higher education provide a foundation for viewing SMT as having potential to enhance student success. Specifically related to students, many theoretical frameworks to explain student persistence (Astin, 1984; Tinto, 1975, 1987, 1993; Pascarella, 1986; Pascarella &



MOBILE and SOCIAL MEDIA

Types of social media activity by mobile phone users

47%

Browse Social Networking Site

34%

Chat on Social Networking Site

35%

Comment on Social Networking Site

24%

Comment on a Blog

29%

Connect with other Professionals

28%

Tag Photos

33%

Browse Social Networking Site

SOURCE FLOWTOWN 2010

<http://www.flowtown.com/blog/how-are-mobile-phones-changing-social-media>

Terenzini, 1991, 2005), engagement and involvement (Astin, 1984; Kuh, 2001, 2003; Kuh et al., 2008), and social and academic integration (Tinto, 1975, 1987, 1993) were developed on the premise that increased engagement, involvement, and connection and belonging (read integration) with the academic and social realms of the campus community will lead to higher achievement, retention, and eventual degree attainment. Most of these theories were developed prior to the emergence of SMT as a central player in the lives of students. Therefore, the rise of such platforms and students' use of them offer opportunities to explore how SMT may or may not function to support such student engagement and involvement. Can SMT offer what lies at the core of such theoretical frameworks, which is the linking of individuals with common interests in a community of

shared experience to achieve desired student academic and career outcomes?

Lewis, Kaufman, & Gonzalez, Wimmer, and Christakis (2008) concluded their study of social ties and social networking sites stating such sites hold immense potential for data collection and mining given the plethora of information available through online user profiles. Given the abundance of information provided and shared between users, as well as the relatively low costs for research, SMT proves to be a fertile site for data collection. The authors suggest this is in large part due to the integration of SMT into the everyday lives of society, especially college students. In addition, they note that data generated by SMT open a number of opportunities for practice, policy, and research to gain new insights with fewer barriers to accessing large quantities of potentially meaningful data.

Other research has addressed the role of social networks – individual and/or collective relationships between other individuals and/or groups – in college student persistence and in providing social capital relevant to career and professional attainment (Deil-Amen, Rios-Aguilar, & Rhoades, 2009; Rios-Aguilar & Deil-Amen, Forthcoming 2012; Granovetter, 1973, 1995; Thomas, 2000). Deil-Amen and Rosenbaum (2004) and others (Lin, Ensel, & Vaughn, 1981; Peterson, Saporta, & Seidel, 2000, Wegener, 1991) posit that intentional college-based networks – the purposeful relationships of postsecondary institutions with outside entities – are essential in the transitional opportunities for post-collegiate job opportunities for those with less cultural capital. Additional studies have cited the increased role of social relationships in determining trajectories of students of color into professional careers (see Hrabowski III, Maton & Freif, 1998; Hrabowski III, Maton, Green & Greif, 2002). If SMT serves as a tool to broaden and enrich students' existing social networks, then this prior research would suggest that SMT holds the potential to improve persistence and occupational attainment through the cultivation of such institutional and social networks, especially for under-represented groups.

In other fields, SMT is often upheld as an ideal tool for facilitating engagement among various stakeholders in an organization. In business, for instance, brands have looked to SMT to make them more accessible and appealing to consumers. Nonprofits have used it to increase awareness about their causes and lead fundraising efforts. Similarly, could institutional stakeholders at all levels of higher education stand to benefit from the large-scale use of SMT to aid and assist in achieving institutional and student success outcomes? For four-year institutions, social media technology is already in wide use and perhaps, if used intentionally, can mirror the

very face-to-face interactions and connections between students, faculty and staff that have already been found in prior research to enhance student involvement, integration, and persistence. This may include interactions between faculty and students outside of the classroom, campus activities staff initiating contact with students, and students engaging with one another about career goals, all in efforts to cultivate a sense of belonging through social and academic connectivity within a given institution (Astin, 1984; Tinto, 1987). Additionally, these interactions can help aid and assist student involvement through access to information and resources, thereby empowering student agency in campus participation (Astin, 1993). Educators have also sought the inclusion of social media in their professional development curriculum to gain familiarity with the role such technology will perform in the future of higher education to inform instructional practices (Deng & Yuen, 2007; Greenhow, 2009; Loving, et al., 2007; Ray & Coulter, 2008; Stiler & Philleo, 2003; Williams, 2009).

At two-year institutions, student involvement in a campus life and college community are often more limited. Might social media hold even more potential for these and other commuting students? As commuters, community college students spend far less time on campus than their four-year counterparts. This means they have less opportunity to integrate into the college environment. Given these conditions, social media may provide the opportunity for faculty, staff, and students to build community by interacting virtually, which might better enable students to gain a greater sense of belonging to, identity with, and investment in their college community. Social media technology holds the potential to enhance classroom learning and discussion by providing an extended socially-oriented forum for such

engagements to continue if structured effectively.

Qualitative research points to the value two-year college students place on socio-academic experiences, which fuse social and academic components in the same set of interactions (Deil-Amen, 2011). Such findings are consistent with previous studies of community college students (Hughes, Karp, & O'Gara, 2009; Karp & Hughes, 2009; Karp, Hughes, & O'Gara, 2010; Tinto, 1997, 2000), which have found that community college students tend to experience and benefit from integrative experiences that have a social element yet revolve around their academic pursuits. Also, integration is less characterized by participation in social organizations and clubs than through information networks that often originate in and develop from classroom-based structures (Karp, Hughes, & O'Gara, 2010). Integration centered within the classroom, particularly through learning communities, has also been shown to increase overall social integration as well (Tinto, 1997, 2000). Clearly, social media technology has the potential to provide a forum for such networking and relationship-building opportunities. It can possibly be used as a tool for extending the engagement of classroom communities into the online medium. Examples include the formation of class groups on Facebook, hosting question and answer sessions via Twitter, and even watching class lectures and supplemental lectures on YouTube using the comment section to generate class discussion.

So conceptually, the idea of integration may be relevant, but the specific ways in which commuting students integrate may differ substantially from students who reside on campus, with socio-academic moments as perhaps more pivotal for two-year students (Deil-Amen, 2011). For these students, the quality and meaning of interactions with peers and faculty held more value and purpose than did the frequency and depth of connection. Simply experiencing a sense of connection that was academically helpful or emotionally supportive symbolized to students a welcoming college climate. These findings resemble the findings of other researchers who found feelings of community and belonging to be of great importance for community college, commuter, and Latina/o students in particular (Braxton, Hirschy, & McClendon, 2004; Deil-Amen & Rios-Aguilar, forthcoming; Rendón, 1994; Rendón, Jalomo, & Nora, 2000; Torres, 2006). For instance, a commuter student may highly value and benefit from the quite limited opportunities to meet and socialize with classmates outside of the classroom. Similarly, as many faculty at community colleges are also full-time professionals and serve in adjunct capacities, office hours may be more limited, if available at all, than on most college and university campuses. Given these limitations in light of research that emphasizes the benefits of such interactions, SMT provides a potential platform for students and faculty to engage in more socio-academic moments.

Overall, social media technology can provide crucial access to college peers for commuter students, who tend to have little time to spend on campus interacting with classmates and the wider college community. Staff also has the opportunity to utilize SMT as a tool to better support the services needed by students who live at a distance and commute to college or enroll online. Providing valuable content to students in social media venues they already use could increase awareness about the services the college has to offer. Additionally, providing a two-way communication portal to field various administrative questions around enrollment, financial aid, and campus involvement could prove useful for students unable to spend time in campus offices due to work and other obligations.

Additionally, the promise of SMT remains in the rich data available by a rapidly growing base of users in centralized digital locations; think of Facebook as the office water cooler or the new student union on an enormous scale. Reuben's (2008) report on the use of social media in higher education noted that Facebook has great potential for engaging students since the medium itself continues to have a dominating presence among 90% of all college goers. In addition, video-sharing sites like YouTube and Vimeo provide substantial promise for communications and marketing offices aiming to increase their messaging efforts among the student population without increasing post-production and distribution costs. Mega-microblog Twitter shows greater potential for the future as more institutions begin to adopt and find use for its service(s). Some institutions have taken an earlier cue from Swartzfager (2007) who, in the wake of the tragic shootings at Virginia Tech University, suggested Twitter could serve as an alert messaging medium for students in case of similar emergencies, and have implemented such practices.

Finally, SMT as a whole shows immense promise to enable connections with people, places, and things through the support of the most fundamental of human behaviors, sharing. When used correctly, SMT provides the opportunity to broadcast messages to a larger and more diverse audience than ever before. In effect, SMT has not only led the direction of how conversations between institutions and people alike occur, but also provided the tools to maximize the social connectivity of the broader world. This is evident in the ways in which SMT has been utilized in

As we imagine the “community” in community colleges today, the potential of an online SMT platform is even more applicable. Community colleges enroll lower SES, commuting, non-residential students whose busy lives are often filled with family and work obligations (Bailey et al., 2004).

many grassroots efforts around the globe such as galvanizing support for injustices in Egypt or the large-scale involvement of young people in the election of President Barack Obama. Given this evolution, can it be argued that SMT will become essential to survival in a socially enabled world? SMT must be understood by all stakeholders, not in an effort to learn how to become social – because we already are – but to determine how well we are doing social in these social media environments, and how that is transforming our means of engaging with one another. Through such efforts to become quality SMT stewards, perhaps we can use this tool to achieve desired academic, social, occupational, political, and other ends.

SUMMARY AND IMPLICATIONS

Yes, it is true that researchers have begun to pay attention to the growth and relevance of social media. Overall, the use of SMT is continuing to grow rapidly among all demographics, with particularly heavy use among persons of color and millennial users. Usage has expanded beyond traditional social networking sites, though such sites still comprise the majority of online activity. Users are drawing on the manifold options to engage with one another and with brands, business, and institutions alike. While the debate on whether the proliferation of SMT usage is entirely beneficial wages on, there are substantive indications that at least some use is helpful for more socially, politically, and academically involved users. However, the studies that directly explore the

use of SMT among college students are limited in number. Among those that do examine this area, the assessment of the impact of SMT on particular student achievement and attainment outcomes is rare. The few exceptions have focused either on the relationships between Facebook (Junco, 2011a, 2011b, In Press) and Twitter (Junco et al., 2010) usage and academic performance or on increasing student involvement and engagement through the use of social media (HERI, 2007; Heiberger and Harper, 2008). The paucity of such outcomes-focused studies makes the research on this topic limited in its capacity to offer solutions for institutional policy or interventions that address the unmet needs of our most vulnerable student populations.

In what other ways is existing research limited? First, the few empirical studies of SMT that exist examined “traditional” college student populations rather than community college students and other typical students who are older than traditional-age students as well as those not living on campus. Second, very few of the studies used data actually generated from SMT sites but instead used self-reported data. This is a major weakness, since self-reports can stray far from actual usage patterns. Third, the studies that have used actual data generated from an SMT platform examined only two dimensions of students’ networks – racial/ethnic ties with peers (Wimmer & Lewis, 2010) and the relationship of privacy settings to social networks (Lewis, 2010) – and the growing implications for network research (Lewis et al, 2008). This excludes a variety of other components relevant to how community college students form and benefit from their social networks. For example, analyzing only students’ ties with their peers ignores the valuable resources of social ties with college faculty, advisors, and other staff and organizations within the institution. Fourth,

prior research has failed to engage the meaning-making aspect of students’ social network creation and use.

Ideally, researchers will turn attention to social media use and its impact among college students generally, and among commuter populations in particular. Recent national data show that an overwhelming majority of community college students use SMT to connect with each other, and to a lesser extent to their institutions, regarding both academic and social topics (CCSSE, 2009). The potential for social media technology to help bridge the involvement, engagement, and integration gaps created by non-residential two-year institutions as well as support greater socio-academic experiences of their students must be researched and explored. In contrast, future research might apply time-tested theoretical and conceptual frames of involvement, engagement, and integration to understand how students use and find meaning in social media ties in ways that facilitate the exchange of the types of information, social capital, and sense of belonging to academic and career and professional communities.

Previous research regarding the aforementioned behaviors has shown they all make a difference for educational and occupational advancement, particularly for lower income and under-represented minority populations (Bourdieu, 1972, 1986; Coleman, 1988; González, Stoner, & Jovel, 2003; Granovetter, 1973, 1995; Lin, 1999; Perna & Titus, 2005; Stanton-Salazar & Dornbusch, 1995). More particularly, greater study of two-year institutions may illuminate ways in which community colleges and their stakeholders are utilizing SMT and the effects on institutional and student success. Given the nature of community colleges as commuter institutions, technology has continued to play an increasing role to access and participation in

higher education through online classes and distance learning (Ntiri, 2010; Shea, Pickett, & Li, 2005). With the advent of social media, technology can now also shape a more comprehensive experience with regard to the ways community colleges communicate with their students and one another. However, no existing research has yet investigated how social media technology can and is being used or the effects of social media in community college settings.

As we imagine the “community” in community colleges today, the potential of an online SMT platform is even more applicable. Community colleges enroll lower SES, commuting, non-residential students whose busy lives are often filled with family and work obligations (Bailey et al., 2004). They therefore tend to lack participation in the “campus community” of more traditional and elite students (Deil-Amen, 2011). How can SMT fill that void? How can it be used deliberately by community colleges as a tool to engage students with each other, with the college, and with college faculty and staff to create more “community” within a community college?

By the same token, can SMT give these more disadvantaged college students access to the social capital and social networks (i.e., institutional connections and contact with other students, faculty, and sources of assistance and information) that research has shown to enhance college outcomes? Researchers and higher education practitioners are well aware that when students connect with available accurate information, services, resources, and advising/mentoring relationships, benefits accrue (CCCSE, 2009). However, few understand how to get students who need the most help to actually seek the help they need to strategize success. SMT is a particularly attractive option because it can cost-effectively bridge the important, yet often severely limited, services of counselors and advisors, providing a potentially effective and exciting mechanism for catalyzing such connections for students.

What are the broader implications? Moving beyond paradigms revolving around improving student success, we should also be thinking more broadly about incorporating social media dynamics into our understandings of social relationships within our societies, communities, and institutions. This will likely be a critical component of our future understandings of social realities generally. Researchers, scholars, and educational practitioners alike need to seriously consider how research agendas about students and institutional practice will be both driven and shaped by social media in the near future. Some scholarly disciplines in particular have advanced our knowledge of the sociology of technology, and this is clearly relevant to the social media realm. In particular, the social construction of technology aligns with much of the work in media studies regarding the implications of social media for how we live, how we work, and how educational institutions operate. There is also a rich literature developing on how the designers of technology often design without a firm understanding of users. This concept is amplified when the content of the technology itself is becoming more and more user-generated and user-driven.

Furthermore, traditional sociological and economic frameworks that address educational and occupational attainment, advancement, and stratification will need to incorporate the ways in which social media will continue to influence such pathways, and potentially transform opportunities. New notions of digital divide and equity will inevitably coalesce around generational categories, given the vast differences in the frequency and sophistication of use between younger and older populations. And given other current patterns, will social media and the ways in which it is used have the power to further solidify or break through existing patterns of inequity, social class, and economic opportunities? The centrality of SMT in launching such political

and social movements as Occupy Wall Street and other protests and resistance across the globe is a testament to its potential in this realm. Do the most recent uses of social media beyond the purely social signal a shift toward users (including students) as change agents within and beyond the educational sector rather than just passive recipients learning the skill sets and social and cultural norms dictated by the dominant and elite decision-makers? Could such a transformation be in fact revolutionary?

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