

It's a Small World After All: Decreasing the Distance One Tweet, Snap, & Post at a Time

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Abstract

As distance education programs become more common and attract more students, institutions are grappling with ways to support online students at a distance. Graduate students face numerous obstacles creating meaningful academic and professional relationships that on-campus graduate students do not encounter. Supported by statistics and literature, this paper illustrates how students and a professor in the Instructional Systems Design and Technology doctoral program at Sam Houston State University utilize social media as a communication and collaboration tool, to facilitate the minimization of these obstacles by creating socially interactive and supportive peer-peer and instructor-peer communities.

Technology, coupled with the Internet, has recreated the landscape of much of our day-to-day lives. The advent of social media has simultaneously made the world larger and smaller, and this has significant implications for postsecondary distance education. Since social media has gained prominence, educators and researchers have explored the applicability of this tool in a learning context. Building connections and relationships between professors, students, and peers emerge as crucial components of online learning environments, which are on the rise (Babson Survey Research Group, e-Literate, & WCET, 2017; Haythornwaite, Kazmer, Robins, & Shoemaker, 2018). These relationships are especially important for graduate students who are preparing for academia and professions (Gersick, Bartunek, & Dutton, 2000).

Further, social media has made it easier to access and create networks by providing easier ways to connect with increasingly large amounts of people and information. Watts and Strogatz (1998) introduced the idea of “‘small-world’ networks ... popularly known as six degrees of separation” (p. 440). This concept showcases the strength of a dynamic network consisting of nodes in which ideas, information, and disease can spread quickly via shortcuts. Inspired by this idea, this paper aims to examine how social media networks cross-connect with distance education, various learning theories such as social constructivism and transactional distance, and recommended strategies.

Status Update: The State of Distance Education, Social Media, and Theory

Distance education and face-to-face networking have existed for a very long time, and there is no doubt that time and technology have transformed what this looks like today. While social media is relatively nascent, it, too, has undergone tremendous growth and transformation in its short life span. The connection between the three has created a modern learning context in which the lines between work, school, and private life often blur.

Distance Education

Distance education has its roots in correspondence studies of the late 1700s (Keegan, 2002). However, the modern definition has been redefined as a system of “teaching and planned learning in which teaching normally occurs in a different place from learning, requiring communication through technologies as well as special instructional organization” (Moore & Kearsley, 2012, p. 2). As the delivery method has moved from the postal service to the modern era of web-connected devices, the distance learner has come to include a broader range of people.

As of 2015, almost 6 million students in higher education were participating in at least one distance education course (Babson Survey Research Group, e-Literate, & WCET, 2017). These figures are estimated to contribute to almost 32% of higher education enrollments as of 2016 (Seaman, Allen, & Seaman, 2018). Interestingly, while overall enrollments in traditional higher education programs are decreasing, enrollment in distance education programs is increasing, as shown in Figure 1 (Babson Survey Research Group et al., 2017). Generally, public institutions are outpacing private schools in offering distance instruction, as more students take advantage of the available opportunities (Allen, Seaman, Poulin, & Straut, 2016).

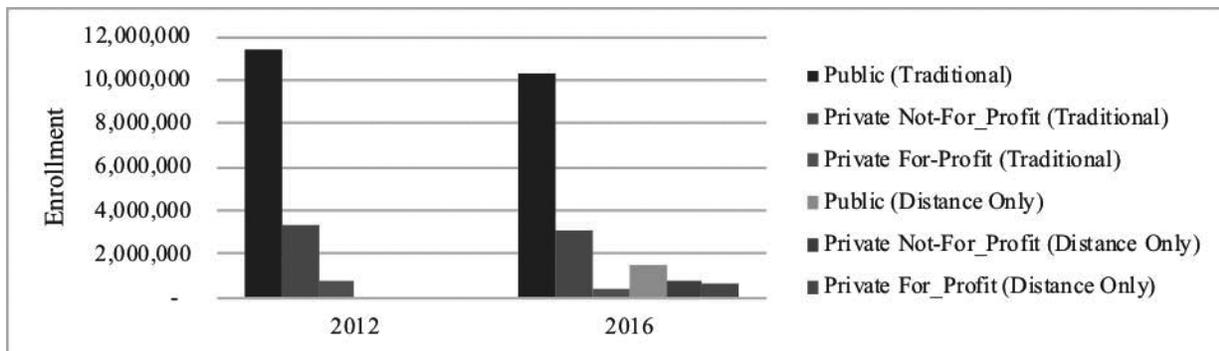


Figure 1. Overall Trends in Distance Education in The United States

Adapted from “Grade increase: Tracking Distance education in the United States,” by J. Seaman, I. Allen, and J. Seaman, 2018, <http://onlinelearningsurvey.com/reports/gradeincrease.pdf>.

The overall trend towards increased participation in distance education also holds true for both undergraduate and graduate programs, as shown in Figure 2 (Seaman et al., 2018). As a result, educational leaders are taking note and consider online education options as part of their long-term institutional viability and strategy (Allen et al., 2016). While at times, there have been varying levels of confidence regarding the quality of distance education programs, this perception is quickly changing, and the majority of education leaders believe the quality is on par or superior to traditional face-to-face learning (Allen et al., 2016).

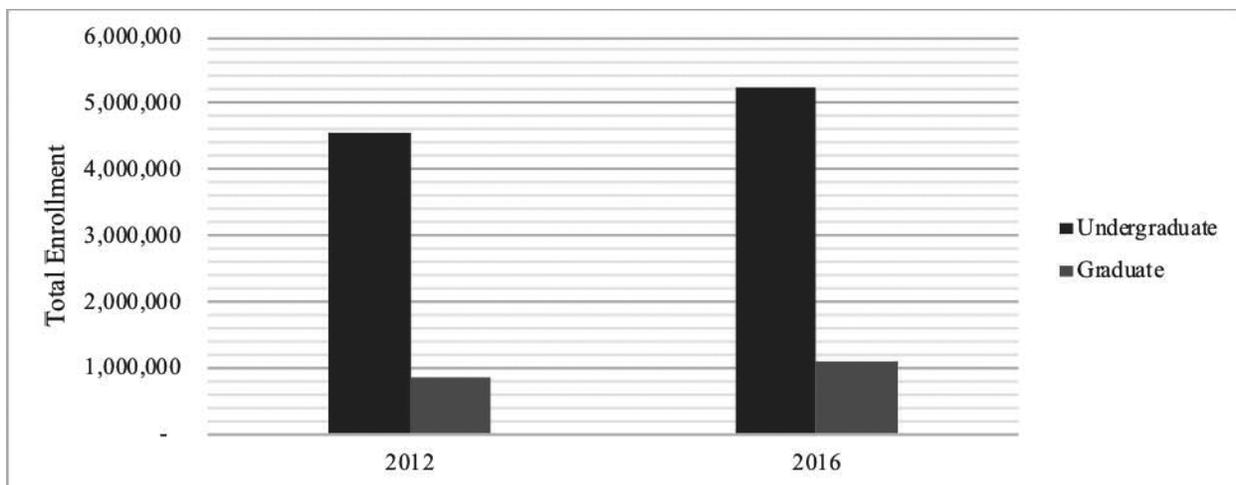


Figure 2. Comparison of Overall Distance Education Undergraduate and Graduate Enrollments in the United States

Adapted from “Grade increase: Tracking Distance education in the United States,” by J. Seaman, I. Allen, and J. Seaman, 2018, <http://onlinelearningsurvey.com/reports/gradeincrease.pdf>.

Demographics and Characteristics of Distance Education Students

In higher education settings, almost 30% of students participate in distance education courses, with nearly half exclusively enrolled in distance coursework (Babson Survey Research Group et al., 2017). The majority of these learners attend public universities, followed by non-profit private and for-profit private institutions, respectively (Babson Survey Research Group et al., 2017). Additionally, the majority of distance education students are enrolled in home-state institutions (Seaman et al., 2018). While there are differences in the number of graduate and undergraduate students enrolled in distance courses depending on the type of institution, graduate students are still more likely to pursue distance coursework compared to undergraduate students (Babson Survey Research Group et al., 2017). Of these students, the majority considered to be exclusively enrolled in distance programs tend to live in the same state as the institution they attend (Babson Survey Research Group et al., 2017).

Some research indicates that the demographics of distance learners is characteristic of the U.S. as a whole and that most are looking to advance their career (Cleary-Estep, 2016). Others find that distance learner characteristics are fluid and constantly in flux (Latanich, Hudson Gail, & Nonis Sarath, 2001). Still, distance learners generally tend to be older than traditional students (between the ages of 25-50), female, and work full-time (Cleary-Estep, 2016; Halsne & Gatta, 2002; Latanich et al., 2001; Moore & Kearsley, 2012; Smith, 2014). The specific percentages in these categories may vary, but the inclination remains valid. Distance learners also have a propensity to make more than a \$40,000 salary and are predominantly white (Halsne & Gatta, 2002; Shriner, 2015). However, African-American and Hispanic student enrollments are significantly higher in distance education programs compared to that of traditional environments (Shriner, 2015). While there are some distinguishing characteristics, one study reports that online and traditional students share similar traits in the areas of marital status, socio-economic status, level of education, and level of employment (Pentina & Neeley, 2007).

Just as there is variation in demographics, distance education programs seem to attract students with certain characteristics. The convenience of distance education due to its flexibility may no longer be novel and requisite, as students look for quality, personalization, individualization, and convenience (Pentina & Neeley, 2007). Overall, learners who choose distance education programs display higher levels of motivation and risk-taking (Latanich et al., 2001). Coupled with more experience in higher education and full-time employment (Latanich et al., 2001), instructors have an opportunity to leverage these characteristics when designing distance learning experiences.

Quality of Effective Distance Education

The quality of distance education programs has been a long-standing topic of discussion. Although the tools to deliver distance education have changed, Keegan (2002) notes that “distance education has a history of more than 150 years, where institutions [have] offered high-quality education to learners ‘free of time and place’” (p. 92). Rather than focusing on whether to offer distance opportunities, institutions should focus on quality assurance measures that evaluate the effectiveness of distance learning and accreditation (Carlsen, Holmberg, Neghina, & Owusu-Boampong, 2016; Muilenburg & Berge, 2001).

Once course quality is present, attention must turn to learner needs and perceptions. According to Lawless and Richardson (2002), students' perceptions of distance education are associated with their approach to studying; this implies that course design should address effective study skills specifically for distance learning (Lawless & Richardson, 2002). This opinion is also informed by the judgment of workload appropriateness, clarity of goals, assessment, materials, and teaching quality (Lawless & Richardson, 2002). Instructors must be able to provide clear course objectives, organizational structure to the course, clarity of instructions, and a choice between group and individual projects (Jones & Blankenship, 2017). Moore's theory of transactional distance supports these assertions on distance learning (as cited in Vasiloudis, Koutsouba, & Giossos, 2015).

Faculty and instructional designers must also be prepared to construct quality instruction specifically targeted for virtual distance environments. Institutions must ensure ongoing professional learning is provided to faculty on pedagogy, technology integration, and appropriate instructional strategies for distance learning (Broady-Ortmann, 2002; Falowo, 2007). As discussed previously, maintaining the quality of communication and social interactions in an online environment is essential for distance learning success (Copeland & Warren, 2004; Haythornthwaite, Kazmer, Robins, & Shoemaker, 2018; Mayisela, 2013).

Universities will also have to reevaluate pedagogical considerations for distance learning, adult learners, and collaboration in an online environment (Gearhart, 2001). Pedagogy in online education environments must address intellectual engagement, communication, collaboration, and discussion (Lee, 2017; Xin & Feenberg, 2006). The key to success for online education appears to be increased interaction with the instructor and content (Mbweza, 2014). As Ascough (2002) stated, "good pedagogy requires an awareness of the opportunities and limitations of the mode of education" (p. 1). Institutions should also ensure that online programs meet standards of rigor and quality; they must also address the unique aspects of distance education (Stella & Gnanam, 2004). As a result, online courses must provide students with ongoing social interactions that elicit analytical and reflective discussion with feedback (Jones & Blankenship, 2017).

Table 1. Top Social Media Platforms Amongst Global Internet Users, Excluding China

Platform	Founded	Description	Estimated Users
Facebook	2004	Platform to connect with friends	2.2 billion
YouTube	2005	Platform for video sharing	1.8 billion
WhatsApp	2009	Smartphone messaging application	1.3 billion
Facebook Messenger	2011*	Messaging application	8 million
Instagram	2010	Platform for sharing images and videos	1 billion
Twitter	2006	Microblogging platform	1.6 billion***
Google+**	2011	Platform to connect with friends	351 thousand***
LinkedIn	2002	Professional networking site	575 million****
Skype	2003	Video and voice call platform	23.6 million***
Snapchat	2011	Messaging app for time-limited images and videos	186 million

*Based on Facebook Chat released in 2008.

**Shut down for users with personal accounts in April 2019 ("Consumer Google+ shutdown," 2019).

***Organic users.

****Registered users.

Adapted from "The history of social media: Social networking evolution!" by K. Terrell, June 16, 2015, *History Cooperative*, <https://historycooperative.org/the-history-of-social-media>.

Adapted from "15 most popular social media networks and sites [+160 data points]," by C. Brenner, July 18, 2018, *G2*, <https://learn.g2.com/social-media>.

Social Media

In order to create effective and engaging online instruction, the rise and impact of social media in higher education needs to be explored. Boyd and Ellison (2007) use the term social network site to describe a web-based service in which users create a profile that allows them to connect with other users and their respective connections in a manner that elevates the relationship. Furthermore, these connections among users are transparent to everyone on the platform (Boyd & Ellison, 2007). As the terminology has shifted towards the use of "social media," these platforms are now web-based and mobile apps in which users can connect and communicate through user-generated content (Kaur Kapoor et al., 2018).

The emergence of social media platforms can be traced back to 1996, but truly emerged in their modern form in the early 2000s (Singh, 2019). With platforms such as LinkedIn, Facebook, Twitter, Instagram, YouTube,

and more, the number of worldwide users has jumped from almost a billion in 2010 to 2.62 billion in 2018 (McFadden, 2018; Singh, 2019). Messaging platforms such as Facebook, Snapchat, WhatsApp, and Facebook Messenger tend to be the most popular platforms, as shown in Table 1 (GlobalWebIndex, 2018).

Demographics in Social Media

Focusing on users in the United States, the Pew Research Center has been tracking social media trends since 2005 (Perrin, 2015). Amongst adults, social media use has skyrocketed from 7% in 2005 to 65% in 2015 (Perrin, 2015). Globally, 98% of Internet users are also social media users who have an average of 8.5 accounts (GlobalWebIndex, 2018). Generally, social media platforms tend to be used for different purposes (GlobalWebIndex, 2018). While 18-29-year-old young adults have the highest rate of usage at 90%, all demographic age groups have shown increases in adoption rates (Perrin, 2015). There are similar usage rates across gender, race, and ethnicity; however, social media is used at higher rates by those living in urban areas and attaining higher levels of education and income, as shown in Figure 3 (Perrin, 2015).

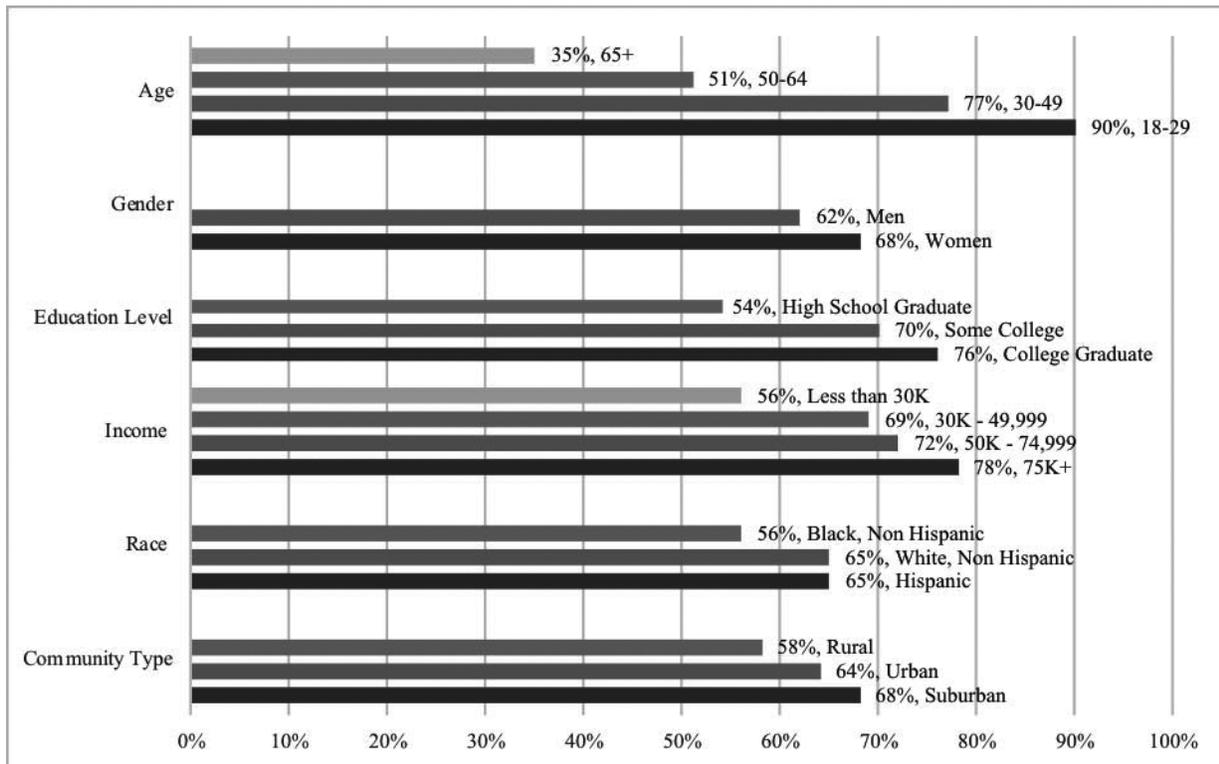


Figure 3. Demographic Trends for Social Media Users in the United States

Adapted from “Use social networking sites report (Pew Research Center Report),” by A. Perrin, 2015, <https://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015>.

Social Media Use in Higher Education

Most data on social media usage in higher education tends to focus on younger undergraduate students, which is not representative of non-traditional distance education students, as previously outlined. However, this data is still instructive in developing an understanding of use in higher education settings. On-campus undergraduate students report that they prefer platforms that focus on personal relationships rather than professional networking (Knight-McCord et al., 2016). As a result, students preferred using Instagram, Snapchat, Facebook, and Twitter, respectively (Knight-McCord et al., 2016). Overall, undergraduate students tend to maintain a presence on multiple platforms, feel that it can improve academic discussions, and is more convenient (Jacquemin, Smelser, & Bernot, 2014).

Graduate student use of social media illustrates a shift towards incorporating professional and academic pursuits into their social media use. Much like undergraduate students, graduate students show a preference for Google+ (no longer available to the public), Facebook, Twitter, and Instagram, respectively (Romero-Hall, 2017).

While they use these platforms primarily for personal use, there is increased usage of platforms such as LinkedIn for connecting to academic or professional communities (Romero-Hall, 2017). Graduate students tend to use fewer platforms and feel that it is far more convenient than using other online options such as those provided within an LMS (Jacquemin et al., 2014).

Instructional Uses

Instructionally, social media platforms are being incorporated into many aspects of higher education. The Internet and social media have created a vast depository of knowledge that is decentralized and always available to both instructors and students (Cortés & Lozano, 2014). In one study, graduate students felt that using Twitter exposed them to information they may not have otherwise found (Jacquemin et al., 2014). While students sometimes feel uneasiness in using social media as a learning tool, they often find that their opinion changes as they see the utility of transparent communication with professors and other classmates (Bista, 2015). In addition, many students also found value for social media use in their professional or personal applications (Bista, 2015). Other studies highlight the varied use of Twitter for instruction, faculty communication, and professional development (Lewis & Rush, 2013).

Communities of Learning

Ofentimes, social media can also be used to develop informal communities of learning. In these cases, people with similar interests can develop or find communities with which to connect and share information (Lewis & Rush, 2013). While common interest communities and collaboration naturally occur in many face-to-face environments, social media has the power to enlarge the circle of people with whom you interact (Amin & Rajadurai, 2018). Moreover, social media affords the prospect for dialog between communities (Kumar & Nanda, 2019). According to Lewis and Rush (2013), social media plays a role in creating useful networks or communities of practice for those in higher education.

Relationship Status: Social Media + Distance Education + Theory

The use of social media within online distance education programs seems to be a natural fit; multiple educational theories support this conviction. Next, the relationship between social media, distance education, and various learning theories will be examined.

Learning Styles

While the term learning style generally refers to a method by which students learn best, there are many different ways to approach this concept. Gardner (1991) proposed multiple intelligences in which learners may have linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, and intrapersonal strengths. Learning styles also frequently refer to modalities, such as visual, kinesthetic, auditory, and tactile (Fleming & Baume, 2006; Lake, Boyd, & Boyd, 2017; Sousa, 2001). While these are two of the most common interpretations, learning styles may also address personality, learner preferences, and learner approaches (Lake et al., 2017).

According to Halsne and Gatta (2002), online learners have historically tended to prefer visual instruction, while traditional students prefer auditory and kinesthetic instruction. Many students like the instructional use of social media due to its high use of audio-visual content, which is in line with this idea (Stathopoulou, Siamagka, & Christodoulides, 2019). Others suggest that social media's ease of use may be more important than learning style (Balakrishnan & Gan, 2016). While using multimedia for instructional purposes is not new in distance education, social media platforms provide the added opportunity to design "rich learning situations" enhanced by multimedia and social networks (Cortés & Lozano, 2014, p. 67; Reiser, 2018).

Instructors must also take into account the skills a student must acquire in order to achieve the intended learning outcome (Roblyer, 2015). Gagné (1985) proposed five categories of learning: verbal information, intellectual skills, cognitive strategies, attitudes, and motor skills. Similarly, Bloom classified skills into cognitive, affective, and psychomotor domains (Anderson et al., 2001; Roblyer, 2015). In this context, the instructional objectives determine the skills a student is expected to acquire, and the instructional design should reflect appropriate sequence, strategies, and media to achieve the specified outcome (Roblyer, 2015). Because there are such a variety of social media platforms that can be used in many different ways, these platforms can almost always meet some preferences or needs of the learner (Stathopoulou et al., 2019).

Constructivism

Constructivism serves as an overarching paradigm in which many individuals have contributed significant theories of how learners construct knowledge. According to Piaget, learners create knowledge by interacting with others through a social and physical environment (Schrader, 2016). While Piaget focused on a biological perspective of cognition, Lev Vygotsky proposed a sociocultural theory in which cognitive development is built from the social and cultural connections of the learner (Woolfolk, 2001). In this sense, learning serves an interdependent social function before it is internalized into individualized knowledge (“Social development theory (Vygotsky),” 2014). Constructivism promotes two essential ideas. The first is learners should be provided a learning task that is within their cognitive ability level, and second is students can achieve beyond their independent level with support (Woolfolk, 2001). In the context of social media, these platforms provide ample social interaction opportunities with people of all levels. There is initial evidence that using social media with a constructivist pedagogy can lead to improved academic performance (Amin & Rajadurai, 2018; Hashim, Rashid, & Atalla, 2018). According to Amin and Rajadurai (2018), social media platforms lend themselves to the aspects of the ideal constructivist classroom.

The reality is that online learning experience is based in social *and* cognitive development. According to the Community of Inquiry Framework, online education is based on the dynamic relationship between social, cognitive, and instructor presence (Garrison, Anderson, & Archer, 2010). Social and cognitive engagement is also integral to the success of the distance learner. In fact, instructors who create a digital culture of dialogue, risk-taking, and interaction between students and the instructor increase the feeling of social inclusion for distance learners, and by extension, the potential for success (Brown et al., 2012).

Cognitive presence integrates Dewey’s ideas on reflective inquiry, while social presence relies on building community through purposeful communication (Garrison et al., 2010). The instructor’s presence may be a key element in which an instructor establishes structures and processes that facilitate learning through a community in a manner that addresses the cognitive and affective domains (Garrison et al., 2010; Roblyer, 2015).

Of course, these are not the only theories that can help explain why social media has the potential to be an ideal instructional tool or environment. Situated cognitive theories lend credence to the idea that knowledge has meaning within authentic contexts, while connectivism promotes having learners link ideas, information, and people (Cortés & Lozano, 2014; Schrader, 2016).

Transactional Distance

Moore’s theory of transactional distance posits that distance can be a geographical and pedagogical experience (Moore & Kearsley, 2012). There are five types of interaction in which transactional distance can be measured: learner-instructor, learner-learner, learner-content, learner-interface, and learner-environment (as cited in Yilmaz, 2017). Yilmaz (2017) found that the Facebook environment produced positive perceptions of transactional distance. Social media studies have supported learners increased interaction in all transactional distance relationships (Amin & Rajadurai, 2018; Bista, 2015; Lewis & Rush, 2013). Studies have found that social media use for learning included increased use of resources, quality interactions, engagement, interest, and collaboration (Ricoy & Feliz, 2016; Tess, 2013).

Connectivism

The idea that social media increases connectedness and interactions among distance education environments is becoming more visible; this has led to new theories about how we might learn best in this new digital age. Connectivism is a theory proposed by George Siemens and Stephen Downs, which suggests that the age of ubiquitous technology and connections has changed the way people learn (Ungvarsky, 2019). Whereas knowledge used to be stored in textbooks and disseminated by the instructor expert, learners now continually access and assess their learning via networks, which is markedly different from the linear path instruction used to follow (Ungvarsky, 2019). In other words, students must be active participants in co-creating their own learning experience (Cortés & Lozano, 2014).

Direct Message: The Future of Social Media and Distance Learning

As exclusively online students in a graduate program, the research presented in this paper resonates with the writers’ experiences. In what is often an isolating, lonely, and arduous path of independent learning and research, social media has provided a user-friendly platform in which to connect and learn from peers in this program. It has afforded the writers much-needed forums to clarify, mentor, educate, ask questions, celebrate successes, share and learn from failures, complain, and seek or provide motivation. Social media has provided opportunities to connect and learn from experts in the field that would have otherwise been unavailable in a traditional face-to-face program, which has resulted in tremendous growth of professional networking opportunities. While there is no doubt that

social media has allowed a deeper level of learning and application, the overarching benefit is the lifelong relationships that have developed and grown into friendships based on respect, collaboration, and peer mentoring. Social media is undoubtedly impacting and changing education in ways that will surely be more visible or measurable in the future, yet in its relatively short existence, it has already changed how the authors learned and view learning. Discussing higher education strategies for graduate students can be categorized as institutional, instructional, and professional.

Institutional Strategies for Online Graduate Students

Institutions must always determine how to enhance the student experience in order to retain students (Aversa & MacCall, 2013; Britto & Rush, 2013). When discussing online versus on-campus programs, many point to the difference in services and experience as a key decision-making factor in the selection process (Nelson, 2017). According to Britto and Rush (2013), the challenge has been in simply offering online students comparable services already provided to face-to-face students. These include services such as online technical support, safety alert systems, online advising, support for first-time, fully online students, student readiness assessments, online student orientations, online tutoring, and school newsletters. Social media can connect students with the right services or communities of support designed for the distance learner.

Instructional Strategies for Online Graduate Students

Instruction is the most important element of any educational institution. When discussing online instruction, the role of the instructor is often deeply intertwined with the design and delivery of a course (Fedynich, Bradley, & Bradley, 2015). While feedback was generally positive for the online experience, Fedynich et al. (2015) noted that students reported lower levels of satisfaction with instructor feedback and peer interactions. Unfortunately, some instructors find online instruction and technology platforms difficult to use, which can lead to poor instructional experiences for students (Bawa, 2016).

Kumar and Nanda (2019) offer many opportunities for how social networking can be used instructionally in higher education. These suggestions include student coursework collaborations, quality online feedback, and online communities to support increased student engagement, participation, and learning (Hashim et al., 2018; Kumar & Nanda, 2019). With the proper instructor support, learners can be empowered and gain confidence as participants and learners within a social media community (Ricoy & Feliz, 2016). The authors have experienced first-hand how social media can be used to authentically connect with, learn from, and obtain feedback from others in the field. These types of experiences elevate an assignment into an authentic collaboration with an artifact of learning that furthers a professional social media presence.

Professional Strategies for Online Graduate Students

Online graduate students tend to already be working professionals (Cleary-Estep, 2016). As a result, higher education institutions benefit from providing services that support the professional goals of their students. In this regard, social media can be a great tool to invite participation from online students who may not be able to attend events in person. Whether it is a campus tour, lecture series, campus communities, professional groups, or mentoring, social media can be used to share information and create interactive online experiences (Kumar & Nanda, 2019). Professionally, LinkedIn provides a unique platform that institutions can use for recruitment, fostering professional connections, and promoting alumni (Kumar & Nanda, 2019). As Nelson (2017) noted, online students often lack access to key networking opportunities such as internships. In addition to this, the authors have also noted a lack of opportunities for research and teaching that are often available to on-campus graduate students.

While it may be impossible to offer an online program that is comparable to an on-campus program, the goal should be to provide equitable services and experiences using any available platform. There are several questions that higher education and instructors can ask themselves.

How can social media be used to:

- create communities of and for learners at the institutional, program, department, and course level?
- provide online graduate students with opportunities for ongoing mentorship and research?
- train online instructors in the effective use of technology tools for instruction, collaboration, and engagement?
- create authentic learning experiences?
- develop or support professional and alumni networking?
- provide online graduate students virtual research and teaching opportunities?
- support the transition from personal to professional social media use?

- accessing the most current information and emerging discussion on a subject?
- extend beyond the “classroom” and include discussions or collaborations with others in the field?

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