

# **Social Media: Online Versus Traditional Universities and Developing Communities?**

**Lisa Witzig**  
**Colorado State University**

**Joe Spencer**  
**Anderson University**

**Katlyn Myers**  
**University of Missouri**

*The use of online social communities for online universities seems a topic where usage can be taken for granted. This paper provides an analysis of social media usage by traditional and online universities and compares their activity levels. The paper analyzes the social media activities of the top 53 undergraduate and top 53 graduate online programs as compared to their traditional programs. Despite the need to engage through these social media sites, online universities in general and online graduate-level programs in particular are not taking advantage of these sites to build communities and deepen relationships with students and alumni as are their traditional programs. Universities invest significantly more resources in their traditional programs' – both undergraduate and graduate programs – social media usage. This is true across the five social media platforms. Recommendations for online university engagement on the top five social media sites are provided.*

## **INTRODUCTION**

Online universities – whether operating as stand-alone entities or as part of a larger university system – desire to make deeper connections with their students and alumni that transcend the classroom or graduation. In traditional university settings, this is done through shared experiences that may involve athletic events, iconic places on campus, study groups, and other tangible, physical experiences that help build relationships. Online universities often have none of these; they are challenged by a lack of tangible, physical, or shared experiences to help their students and alumni connect and build a relationship with the institution and each other. While the student populations for online universities differ from traditional universities, the desire on the part of the online universities to stay connected to students and alumni can be as powerful as it is for their brick-and-mortar counterparts. This paper will examine a theory that online universities are creating a sense of community among students and alumni through online interactive media. The paper will identify the top community-building online tools and will evaluate the top 54 undergraduate and top 53 graduate online universities' usage of these tools as compared to their usage of these tools for their traditional programs. An analysis of the results will serve as a foundation for

recommendations for online universities wishing to create a sense of community with students and alumni.

## **THE ONLINE EDUCATION LANDSCAPE**

The focus of this paper is on universities that offer degree programs in which the component courses are offered completely online. An online course is defined as one where at least 80 percent of the content is delivered online (Allen & Seaman, 2013). These courses may also include video conferences or teleconferencing, but the vast majority of the instruction and learning takes place virtually in an online classroom. Many universities started out by offering single online classes, but most now are offering complete academic programs and degrees (Noel-Levitz, 2012).

Universities have approached online learning from a number of different perspectives. First movers tended to be the for-profit universities, while traditional universities waited on the sidelines before jumping in (NEA Higher Education Research Center, 2004). For-profit universities also are referred to as proprietary universities and are run as a business, many of which are publically traded (NEA Higher Education Research Center, 2004).

Some state universities have established an extension of their traditional programs online, like Penn State's World Campus (Penn State, 2014). Other universities, like Colorado State University, have set up a completely independent component of the university system that functions separately from the rest of the Colorado State system at Fort Collins and Pueblo (Colorado State University – Global Campus, 2014). Private universities also are offering online degrees, but appear to be taking a bit more cautious, wait-and-see approach (Allen & Seaman, 2013). The trend, however, is toward greater online participation; in 2002, approximately 28 percent of higher education institutions offered no online courses, but by 2012, this number dropped to just 13 percent (Allen & Seaman, 2013). Perhaps more telling, 63 percent of higher education institutions offer complete programs online, compared with only 34 percent ten years earlier (Allen & Seaman, 2013).

Allen and Seaman (2013) have tracked trends in online learning over a 10-year period, and their study includes some compelling findings:

- 70 percent of chief academic leaders at over 2,000 institutes of higher education view online programs as critical for their long-term strategies
- 77 percent of chief academic leaders perceive learning outcomes in online programs as the same or superior to traditional face-to-face classrooms.

With the increasing numbers of universities offering complete degree programs online, these institutes of higher learning are facing a dilemma: without the benefit of face-to-face classes, fan-supported sporting events, or other activities and behaviors that promote connections and deepen relationships, how can these universities promote a sense of community among their online students and alumni? Weerts, Carera, and Sanford (2009) show that continued relationships with alumni are important on many levels, to include financial support through alumni donations.

### **Who Attends Online Universities?**

Online universities and programs attract a more mature student, in contrast to traditional students at brick-and-mortar universities. Dabbagh (2007) states, "The profile of the online learner population is changing from one that is older, mostly employed, place-bound, goal oriented, and intrinsically motivated, to one that is diverse, dynamic, tentative, younger, and responsive to rapid technological changes" (p.218). More recent research tends to contradict this; the average age range for students engaged in distance learning is 25 to 50 years old (Colorado & Emberle, 2010). Noel-Levitz (2011) conducted a survey of approximately 99,000 learners from 108 institutes of higher learning. The findings indicate that students enrolled in online programs are predominantly female, and only 15 percent are aged 24 or younger. The author (2011) indicates that the vast majority are non-traditional learners with 78 percent between the ages of 25 and 54. Unlike their younger counterparts, these non-traditional learners tend to be married and working full-time.

## ONLINE COMMUNITIES: DEFINITION AND BENEFITS

Johnson, Faraj, and Kudaravalli (2014) define online communities as bringing together “individuals with shared interest in joint action or sustained interaction” (p. 795). Butler, Bate, Gray, and Diamant (2014) define online communities as “groups of people with shared interests who communicate over the Internet through a common platform” (p. 700). This aligns with an earlier definition in which an online community is one where “groups of people with similar concerns who communicate via information technology” (du Pre’, 2000, p. 182).

The benefits of participating in an online community vary among the types of communities, but in the main, participants appear to benefit from being actively engaged. For example, women with breast cancer who participate in an online community receive a range of psychosocial benefits, to include sharing information and support, greater optimism, decreased stress, and improved mood (Rodgers & Chen, 2005). For other online community members, they benefit from shared knowledge, professional support and opportunities, and career networking (Butler et al., 2014). Participants in online communities typically have a desire to share interests and communicate these interests (Johnson et al., 2014). The roots of understanding online communities are derived from social networking theory, which proposes that online communities are composed of nodes and ties where the ties are the relationships between these nodes. Here the university seeks a tie with potential students, students and alumni thus creating or enhancing a relationship. Lin and Lu (2011) studied factors that drive involvement in online communities and found enjoyment and usefulness are the keys that drive involvement. Lin (1999) concluded that social networking sites enable social capital. The development of positive feelings generated from a social media site can help enable the school to generate favorable attitudes from participants. Glazer, Breslin, and Wanstreet (2013) find that a greater sense of community among students enhances student retention and success. Their work also indicates that the sense of community helps with building referrals of prospective students. Universities need to use every touch point – to include the admission process and post-graduation services – to build communities with their stakeholders; these touch points reside in the many online interactions that universities have with their stakeholders, to include social media (Glazer et al.; Bibeau, 2001).

Weerts, Carera, and Sanford (2009) demonstrate that alumni are important to their universities on many levels. For example, alumni donations provide considerable financial support, upwards of billions of dollars annually. Additionally, alumni provide networking help, career advice to students, mentoring, and internships. Cunningham and Cochi-Ficano (2002) demonstrate that there are various determinants for alumni engagement with universities, not the least of which is the sense of belonging to a community, while Harrison, Mitchell, and Peterson (1995) show that building a grounded sense of community can affect alumni donations.

Moreover, Drouin and Vartanian’s (2010) research indicates that students in a face-to-face classroom setting are more likely to report feeling a sense of community than those in an online environment. Rovai, Wighting, and Liu (2005) show that online, nontraditional students have a weaker sense of connectedness than face-to-face students. The authors (2005) also point out, however, that these nontraditional students forge stronger social bonds with each other than do their younger counterparts. It would appear, therefore that nontraditional students are open to forging relationships within an online community if the university can provide outlets that encourage this behavior.

A strong university community and image can be tied to a university’s sports program. Research by Roy, Graeff, and Harmon (2008) shows that by simply moving from NCAA Division 1-AA to Division 1-A, a university can enhance its reputation with the public. As the authors (2008) point out, this move also will deepen alumni ties to the university, enhance its reputation and school spirit, and attract more potential students. Without sports programs and a tie to an NCAA division, however, online universities need to seek other avenues for building a sense of community. Gluck (2013) summarizes the problem when she ponders as to how an organization can move from a “geo-specific community to one that participates in the greater digital community” (p.9). For online universities, many do not even have the advantage of starting with a geo-specific community.

## ONLINE UNIVERSITIES AND ONLINE ACTIVITIES

The importance of the Internet to both individuals and organizations is growing significantly. According to the Pew Research Internet Project, college educated Americans use the World Wide Web at an astounding rate of 97 percent (Fox and Rainie, 2014). According to a study by Barnes and Lescault (2013), universities are very active using the Internet to recruit and prospect for new students; 41 percent of college officials believe increases in enrollments are related to their university's social media activities. The study goes on to show that university activities online are varied and extensive: close to 60 percent of college presidents are posting to Facebook, while almost as many are tweeting; more than 66 percent of universities have an official blog (Barnes & Lescault, 2013).

A study of communicators at universities showed a strong belief that social media could enable "geographically dispersed stakeholders, such as alumni" (p.105) to experience a deeper two-way communication with universities and deepen their allegiance (Kelleher & Sweetser, 2012). Based on the evidence presented in this paper thus far, these researchers might assume that online universities are extremely active in building online communities outside of the classroom. Because online universities operate without the benefit of a brick-and-mortar presence or a geo-specific location, using online tools and techniques for building online communities is vital.

As a starting point, it is important to identify the most applicable sites and tools that are used by organizations to build online communities. Osborn and LoFrisco's study on 78 university career centers shows that these universities are most active on Facebook, LinkedIn, and Twitter (2012). Indeed, LinkedIn is perceived by faculty as an important networking tool for their students, as it provides valuable professional interactions (Peterson & Dover, 2014). Of particular importance, Dryud (2011) shows that working adults are most likely to use LinkedIn, as it provides the ability to network and "manage their professional images" (p.476). Facebook and Twitter also figure prominently in students' social networking (Dyrud, 2011; Johnston, Chen, & Hauman, 2013; Jordache & Lamanauskas, 2013). Barnes and Lescault (2013) show that college presidents out-tweet their CEO peers in the private sector. Additionally, 58 percent of the colleges surveyed by Barnes and Lescault (2013) have presidents who are posting on Facebook.

Perhaps most importantly, the Pew Research Internet Project shows that adults gravitate to five social network sites: Facebook, LinkedIn, Pinterest, Twitter, and Instagram (Duggan & Smith, 2013). The research also shows that adult females are most likely to participate on Pinterest, while Facebook is the social network most popular among all adults. LinkedIn, on the other hand, is most popular among college graduates. Because of online universities' need to reach this cohort where they "reside" online, this paper hypothesizes that the top online universities should be active building communities on the top five social networks, as identified by the Pew Research Internet Project (Duggan & Smith, 2013). Further, this paper hypothesizes that LinkedIn should be of particular interest for universities offering graduate-level online programs, as this social network site is most relevant for their students and alumni because of its appeal to college graduates who are using it to find jobs and internships and build their professional networks. Although online universities have core competencies communicating with students in the classroom that does not mean that they also have a core competency utilizing social media resources. This study questions if top online universities are utilizing social media toward building communities that will foster future benefits to the schools.

## HYPOTHESES

The very idea that a university program that is based on online delivery versus a face-to-face delivery would lead one to believe that the online nature of the program would be both stimulus to use online social media networks and would indicate a propensity to utilize online social techniques to attract students and to unite potential current students and alumni to bond with the school. Just as consumer products and traditional universities have demonstrated propensity to seek to create emotional linkage with customers, students and alumni. It seems natural that online universities or divisions of schools

would transfer their online student learning expertise to social media usage to promote student experiences, as well as, continued relationships with alumni through online social media tools. Therefore we have four hypotheses related to comparing social media usage for online and traditional universities.

- H1: Universities invest more heavily in their undergraduate programs usage of social media for community building than their graduate programs.
- H2: Universities invest more heavily in their online programs – either graduate or undergraduate – usage of social media for community building than their traditional programs.
- H3: The quality of social media content is higher for universities’ online programs than for their traditional programs.
- H4: The quality of visual content in universities’ social media content is higher for their online programs than for their traditional programs.

## **METHOD AND DATA COLLECTION**

The research to test the hypotheses starts with the list of top under graduate and graduate online programs as evaluated by U.S. News and World Report (2015). We examined the school’s online and traditional programs. The top online graduate and undergraduate programs were evaluated and compared to their traditional counterparts, based on their online social media presence and quality. Originally, the top 50 programs were to be evaluated. Because of some ties in the rankings, 53 undergraduate programs and 53 graduate programs were evaluated. For this reason, percentages will be used when comparing undergraduate to graduate program results.

Regarding the study’s definitions, the study did not include a brick-and-mortar’s presence on the website as sufficient for counting for the online program’s presence. The participation on the site had to be solely for the online programs. For example, if Central Michigan University had a page on Facebook that mentioned Central Michigan University – Global Campus, this would not be judged as Central Michigan University – Global Campus’ presence on the site. The Facebook page would have to belong to and be managed by Central Michigan University – Global Campus. In order for the social media platform to be evaluated, the account had to be labeled “online”, “distance education”, “eCampus”, or some other text to indicate that the account represented the online arm of the university. In sum 212 programs were studied (53 universities each having a traditional and online program and each having a undergraduate and graduate program). Each Program was simply rated with a “yes” or “no” based on whether or not they had accounts on Facebook, LinkedIn, Pinterest, Twitter, and Instagram.

After this, the content of the accounts was evaluated. For accounts that did not post very often or only posted information about deadlines, they received a low rating. Accounts that were fairly active and had a moderate depth of variety got a medium rating. For example, an account that repeatedly posted information about their programs and deadlines but never posted any content about students or helpful articles got a medium rating. Accounts that were very active and had a large variety of content received a high rating. For example, programs with a high rating posted deadlines, relevant articles, and pictures of students across the country, as well as other content. Accounts that were rated highly did not use the account to simply share information about programs or deadlines. Instead, they worked to establish a community atmosphere.

After this step, the visual nature of the accounts was evaluated. Accounts that rarely posted any photos at all received a low rating. Accounts that used photos moderately received a medium rating. For example, when one university account such as Facebook was visually strong, but their Twitter account did not display images, a medium rating was assigned. Accounts that used frequent stock photos also got a medium rating. Accounts that frequently use images on all platforms except LinkedIn, got a high rating. These accounts tend to use original photos of real students, professors, or workers in the program.

The last evaluation was the “on-site easy link.” The online website page had to include at least one link to an active social media account for the online program in this evaluation. If on-site easy links provided on the online page took the viewer to a social media account for a traditional program, these links were not counted.

## DATA ANALYSIS

This study shows that overall, 64.8% of top undergraduate online programs and 47.2% of top graduate online programs use social media accounts specifically for their online arms. Their traditional counterpart had 100% of the undergraduate programs and 100% of the graduate program using social media accounts.

**TABLE 1**  
**TOP UNDERGRADUATE ONLINE UNIVERSITY USAGE OF SOCIAL MEDIA**

	Facebook	LinkedIn	Pinterest	Twitter	Instagram
Pennsylvania State University—World Campus	Y	Y	N	Y	N
Daytona State College	N	N	N	N	N
University of Illinois—Chicago	N	Y	N	N	N
Western Kentucky University	Y	N	N	Y	N
Embry-Riddle Aeronautical University—Worldwide	Y	N	N	Y	N
Oregon State University	Y	Y	Y	Y	Y
Colorado State University—Global Campus	Y	Y	N	Y	Y
Arizona State University	Y	Y	Y	Y	Y
Ohio State University—Columbus	Y	N	N	N	N
Pace University	Y	N	N	Y	N
Regent University	N	N	N	N	N
Savannah College of Art and Design	N	Y	N	Y	Y
Central Michigan University	Y	Y	N	Y	N
University of Florida	Y	N	N	Y	N
Utah State University	Y	N	N	Y	N
Creighton University	N	N	N	N	N
Fort Hays State University	Y	N	N	Y	N
SUNY College of Technology—Delhi	N	N	N	N	N
University of La Verne	Y	N	Y	Y	Y
George Washington University	N	N	N	N	N
University of Illinois—Springfield	N	N	N	N	N
Washington State University	Y	Y	N	Y	N
California Baptist University	Y	N	Y	Y	Y
University of Wisconsin—Superior	Y	N	N	N	N

	Facebook	LinkedIn	Pinterest	Twitter	Instagram
Palm Beach Atlantic University	N	N	N	N	N
Siena Heights University	Y	N	N	Y	N
American Public University System	Y	Y	Y	Y	Y
City University of Seattle	N	N	N	N	N
CUNY School of Professional Studies	N	N	N	N	N
University of Denver	N	N	N	N	N
Brandman University	N	N	N	N	N
Old Dominion University	Y	N	N	Y	N
Temple University	N	N	N	Y	N
Ball State University	Y	N	N	Y	N
Charleston Southern University	Y	Y	N	Y	N
Indiana University-Purdue University—Fort Wayne	Y	N	N	N	N
St. John's University	N	N	N	N	N
University of Minnesota—Crookston	Y	Y	N	Y	N
University of Missouri—Kansas City	Y	N	N	Y	N
Colorado State University	Y	Y	N	Y	Y
Concordia University—St. Paul	Y	N	N	Y	N
Eastern Kentucky University	Y	Y	N	Y	Y
Florida Institute of Technology	Y	N	N	Y	N
Malone University	N	N	N	N	N
University of Maine—Augusta	N	N	N	N	N
University of Nebraska—Lincoln	N	N	N	N	N
Lamar University	Y	N	N	N	N
Loyola University Chicago	N	N	N	N	N
Marist College	N	N	N	N	N
St. Leo University	Y	N	N	Y	N
University of Central Florida	Y	N	N	Y	N
University of Missouri—St. Louis	N	N	N	N	N
University of the Incarnate Word	Y	N	N	Y	N
University of Wisconsin—Platteville	Y	Y	N	Y	N

*Note:* Information for this table was adapted from information from “Best online programs” by U.S. News and World Report, (2015), <http://www.usnews.com/education/online-education>

As seen in Table 1, only three of the universities identified as a top fifty online program uses all five of the social media platforms – Oregon State University, Arizona State University and American Public University. The second ranked school – Daytona State College – and several others use none. Tables 3 and 4 show the percent usage by social media form and the depth of usage by type of program.

Duggan and Smith (2013) point out that Facebook, LinkedIn, and Twitter have the greatest number of participants, so the incorporation of these social media networks into a greater strategy would make be logical. The results (see Table 1) also show 61.1% of these top universities are using Facebook but only 25.9% LinkedIn; given that the demographics for online students skew older and older Internet users are more active on LinkedIn than their younger counterparts, it is somewhat surprising to see that not all of the universities are active on these social media platforms. Instagram and Pinterest are used the least; this may reflect on the fact that universities find it harder to use these visual-intensive platforms where words are sparse and a picture must carry the entire story. Given that the majority of online students are female and females are far more active on Pinterest than males, checking in at 72 percent (Huffington Post, 2012), it is somewhat surprising that universities are not expending more energy on this platform.

Next, this study examines the use of social media by the top ten online graduate programs as evaluated by U.S. News and World Report (2014). Using the same methodology, the results of the universities' participation in the five social network sites are shown in Table 2.

**TABLE 2**  
**TOP GRADUATE ONLINE UNIVERSITY USAGE OF SOCIAL MEDIA**

	Facebook	LinkedIn	Pinterest	Twitter	Instagram
University of Houston	Y	N	N	Y	N
Florida State University	N	N	N	N	N
Northern Illinois University	N	N	N	N	N
Pennsylvania State University—World Campus	Y	Y	N	Y	N
Central Michigan University	Y	Y	N	Y	N
Graceland University	N	N	N	N	N
University of Nebraska—Lincoln	N	N	N	N	N
Auburn University	N	N	N	Y	N
Ball State University	Y	N	N	Y	N
George Washington University	N	N	N	N	N
Creighton University	N	N	N	N	N
Emporia State University	Y	N	N	N	N
Michigan State University	N	N	N	N	N
University of Florida	Y	N	N	Y	N
University of Northern Colorado	Y	N	N	Y	Y
University of Scranton	N	N	N	N	N
Utah State University	Y	N	N	Y	N
Indiana University—Bloomington	Y	N	N	Y	N
University of South Carolina	N	N	N	N	N
University of South Florida	N	N	N	N	N
California State University—Fullerton	N	N	N	N	N
Regent University	N	N	N	N	N
Arizona State University	Y	Y	Y	Y	Y
New York Institute of Technology	N	N	N	N	N



	Facebook	LinkedIn	Pinterest	Twitter	Instagram
University at Buffalo—SUNY	Y	N	N	Y	N
University of Cincinnati	N	N	N	N	N
University of Nebraska—Kearney	Y	N	Y	Y	N
Sam Houston State University	Y	Y	N	Y	Y
University of Georgia	Y	N	N	Y	N
Angelo State University	N	N	N	N	N
Fort Hays State University	Y	N	N	Y	N
University of Alaska—Anchorage	N	N	N	N	N
University of Dayton	N	N	N	N	N
University of Texas—Arlington	N	N	N	N	N
California University of Pennsylvania	Y	N	N	Y	N
Lamar University	Y	N	N	N	N
North Carolina State University—Raleigh	N	N	N	N	N
University of Arkansas—Fayetteville	Y	N	N	Y	N
University of Mississippi	Y	N	N	N	N
University of North Carolina—Wilmington	N	N	N	N	N
Western Kentucky University	Y	N	N	Y	N
Augustana College	N	N	N	N	N
Brenau University	N	N	N	N	N
College of St. Scholastica	N	N	N	N	N
Old Dominion University (Darden)	Y	N	N	Y	N
University of Nevada—Reno	Y	N	N	N	N
Boise State University	Y	N	Y	Y	N
Drexel University	Y	Y	Y	Y	Y
Eastern Kentucky University	Y	Y	N	Y	Y
Pittsburg State University	N	N	N	N	N
St. John's University	N	N	N	N	N
University of Illinois—Urbana-Champaign	N	N	N	N	N
Wright State University	N	N	N	N	N

*Note:* Information for this table was adapted from information from “Best online programs” by U.S. News and World Report, (2015), retrieved from <http://www.usnews.com/education/online-education/education/rankings>

In comparison with the undergraduate online top ten universities, the online graduate universities are less active (see Table 2). Like undergraduate schools, several schools do not use social media platforms at all. Like undergraduate universities, participation on Facebook was the most prominent and next was Twitter: LinkedIn followed. This is surprising, given that one characteristic of more active LinkedIn users

is that they are college graduates, a criteria for attending graduate school (Dryud, 2011). Instagram and Pinterest were the least popular social media sites used by the online graduate programs.

**TABLE 3  
OVERALL COMPARISONS BETWEEN UNDERGRADUATE AND GRADUATE PROGRAMS  
SOCIAL MEDIA EFFORTS**

		N	M	SD	Med
Online	Undergrad	53	1.64	1.495	2
	Grad	53	1.17	1.438	0
Trad	Undergrad	53	4.77	0.505	5
	Grad	53	4.77	0.422	5
Total		212	3.09	2.011	4

The Tamhane Multiple Comparison showed no significant difference between online undergraduate and graduate programs, or between traditional undergraduate and graduate programs (Table 3). There was, however, a significant (p-value <.001) difference between all traditional programs – undergraduate and graduate -- versus all online programs (Table 4). This trend continues with a more specific comparison between online and traditional undergraduate programs (p-value <.001) and online and traditional graduate programs (p-value <.001), see Tables 5 and 6. Hence, we reject both hypothesis 1 and hypothesis 2 for universities with the top online programs and traditional programs.

**TABLE 4  
OVERALL COMPARISON OF ONLINE VERSUS TRADITIONAL PROGRAMS SOCIAL  
MEDIA USAGE**

	N	M	SD	Med
Online	106	1.41	1.479	1
Trad	106	4.77	0.464	5
Total	212	3.09	2.011	4

**TABLE 5  
COMPARISON OF ONLINE UNDERGRADUATE PROGRAMS WITH  
TRADITIONAL UNDERGRADUATE PROGRAMS SOCIAL MEDIA USAGE**

	N	M	SD	Med
Online	53	1.64	1.495	2
Trad	53	4.77	0.505	5
Total	106	3.09	2.011	4

**TABLE 6**  
**COMPARISONS OF ONLINE GRADUATE PROGRAMS WITH TRADITIONAL GRADUATE PROGRAMS SOCIAL MEDIA USAGE**

	N	M	SD	Med
Online	53	1.17	1.438	0
Trad	53	4.77	0.422	5
Total	106	3.09	2.011	4

Based on these comparisons, universities invest significantly more resources in their traditional programs' – both undergraduate and graduate programs – social media usage. This is true across the five social media platforms.

The study also evaluated the depth of content of the schools. Table 7 shows the results of this evaluation.

**TABLE 7**  
**EVALUATION OF DEPTH OF CONTENT**

Qualification	Undergrad	Grad
% High Content Depth of all programs	40.7	37.7
% High Content Depth of participating programs	62.9	80
% High Visual Content of all programs	33.3	35
% High Visual Content of participating programs	51.4	72
% With Easy Link of all programs	51.9	39.6
% With Easy Link of participating programs	77.8	84

A deep-dive into the quality of content in universities' social media posts shows that traditional programs – both undergraduate and graduate – have much higher quality content than online programs with chi square results of  $X^2(2, N = 165) = 37.67, p < .001$ . We reject hypothesis 3, as it appears that universities are investing more heavily in their traditional programs' social media presence.

The same is true for the use and quality of visuals in social media. Universities invest more resources and energy in using visuals for their traditional programs' – both undergraduate and graduate – social media usage than their online programs,  $X^2(2, N = 165) = 37.47, p < .001$ . Hence, we reject hypothesis 4.

## RECOMMENDATIONS

An examination of the top 53 undergraduate and top 53 graduate online universities' use of the top five social media networks shows a distinct split in how undergraduate and graduate online programs are approaching the use of these networks to build communities with their prospective students, current students, and their alumni. Particularly surprising is the evidence that indicates that graduate online programs are not very active on LinkedIn, which could hold a strong interest for their students and alumni.

Given the findings in the literature and the survey of the top online universities for undergraduate and graduate programs, we recommend that online universities:

- **Develop a comprehensive community-building strategy.** To ensure the university is maximizing the value of various social media networks, online universities should develop a comprehensive strategy that is deliberate in its choice of networks. For example, the literature review indicates

that the student demographics for online universities skew toward older, female, and working adults (Colorado & Emberle, 2010; Noel-Levitz, 2011). Universities should consider their audience segments when choosing where to invest time and resources to develop their online communities. Online universities associated with a brick-and-mortar counterpart should closely coordinate their community-building strategy with the other parts of the university system. Decisions regarding whether to share resources or create a separate online entity for community building should be a foundational piece of the strategy.

- ***Tailor the content to the social media site.*** Online universities should ensure that they are maximizing the value of the social media by tailoring the content toward their community-building goals. For example, Loyola University uses Twitter for two-way conversations with students and alumni; the content most often is about live events or sharing content from within the Loyola community (Washenko, 2013). The author (2013) also shows that Loyola uses Facebook for messages that are longer and are not as time sensitive; these messages focus on promoting events, highlighting student profiles, and sharing professional videos. And with Instagram, Loyola uses this social media platform to deliver messages with visual content quickly, to include video (Washenko, 2013).
- ***Remember mobile and other screens.*** Consumers of online content are increasingly using multiple screens (Smith, 2012). As such, online universities should ensure that their social media sites are scalable and can be viewed on many types of screens, to include smart phones, tablets, and laptop computers. Additionally, the interactive experience that is critical for community building must be seamless across multiple screens.
- ***LinkedIn is a must do.*** Despite the uneven usage of LinkedIn by the universities covered in this study, it is important to include this in the community-building toolkit for two reasons: first, it reaches the older demographic, which aligns with online students; and second, it is a strong tool for networking with alumni, who are focused on professional discussions, careers, and job opportunities (Klamm, 2014; Peterson & Dover, 2014).
- ***Online universities should consider how to use the visual components of their Facebook and Twitter content on Pinterest and Instagram.*** Pinterest and Instagram were the least used of the five sites, according to the results shown in Tables 1 and 2. There may be an apprehension on the part of universities to commit to such visually oriented sites that require the generation of photos and images with great frequency. If, however, universities are already using imagery in their Facebook posts and tweets, they could re-purpose this material to these other social media sites. This strategy may be particularly relevant to the use of Pinterest, given that online student populations skew female and Pinterest participants are overwhelmingly female (Duggan & Smith, 2013; Noel-Levitz 2011). The University of Regina Library effectively uses Pinterest to attract participation by students and alumni and build communities (Hansen, Nowlan, & Winter, 2012). The library uses Pinterest to alert followers of new purchases, future events, and sharing material from their archives. The board displaying new purchases was so popular, the library had to create separate boards for different subject areas (Hansen, Nowlan, & Winter, 2012).

## CONCLUSION

The evidence from the literature review within this study indicates that while various social media networks are useful for building communities with students and alumni from online universities, online universities are not necessarily taking advantage of these opportunities. This paper has laid out a number of recommendations to help online universities deepen connections with their students and alumni and build online communities.

## Limitations and Further Research

The results are confined to the top online universities. Requirements for positive inclusion of a social media site mandate that the online degree must be specified. It is possible that many schools do not differentiate between face-to-face and online degrees, either to avoid an online stigma or simply to retain continuity of the school's external face. However it is telling in this vein that the undergraduate schools only have an easylink 50% of the time and graduate schools only 39.6%. This could indicate that online institutions do not value social media as an important part of building communities with their constituents. Further research is needed to assess if top traditional universities value social media in the same manner as this study projects.

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