

Selecting Social Media Tools to Communicate to Construction Management Students

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The majority of Construction Management (CM) students have been introduced and integrated with social media in some form or fashion. These students use social media for entertainment purposes, to manage relationships, for gathering information, to seek employment, and as a communication tool. Social media use within university departments have become more and more popular since the early 2000s and is used today to reach out to current students, recruit future students, and stay connected to alumni. CM programs across the nation compete for the best and brightest students and have looked at social media to be more competitive. This paper provides a summary of one University CM program's question to adopt social media or not. A review of current CM programs across the country was performed and is presented within the paper, findings included that although several programs have made the decision to adopt social media tools the majority of programs do not utilize Social Media. A survey of the student body within the studied CM program was conducted in order to identify what social media tools are currently being used and which tool would be an effective communication tool for the CM program in the future.

Key Words: Construction Management, Social Media, Social Networking, Communication

Introduction

It is important for Construction Management (CM) programs across the nation to effectively communicate to their student body, alumni, and potential students. This competition for future students has pushed CM programs to find more effective recruiting tools in order to entice students within their geographical locations and across the country. Furthermore, due to recent changes in the economy many CM programs have a greater focus on recruiting students but are forced to work with fewer resources. A 2014 study examined the perceptions of using social media for educating CM students and found that faculty agree that social media can improve communication and networking amongst students (Ghanem et al.). Since the early 2000's, social media has become a regular communication tool for organizations (Edosomwan et al, 2011) and due to its low economical cost it can provide a potentially effective recruiting tool. Outside of CM programs, social media has become a tool in which many university departments have begun utilizing for the purposes of communicating to their student bodies and recruiting future students. Engineering programs within the country have started studying the impact that social media has on communicating and recruiting students into their programs (Berger et al, 2014; Klosky et al, 2010), however, a literature review provided little findings of social media's impact with communicating to CM students through social media and thus became the basis for this paper. In 2014 the University of Oklahoma's, Construction Science Division began a study to identify social media use and effectiveness in order to adopt and implement a social media tool(s). The researcher conducted a study of similar CM programs use with social media across the country and performed a survey across the student body within the program. The research objective was to find which tool is most frequently used and which would be the most effectively used in the observed program.

Social Media

Merriam-Webster defines social media as "forms of electronic communication (as web sites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (as videos)." Today some of the common social media websites include: Facebook, Google +, Instagram, LinkedIn, Twitter, and YouTube. Although other social media sites exist this study focused on these social media tools. A description and history of each tool doesn't seem necessary for the purpose of this paper. Each social media tool has unique functional characteristics but they all fall under the definition of social media with regards to sharing information, ideas, personal messages, and videos online.

A 2015 Pew Research Center study found that 52 percent of all American adults (18+) used two or more social media websites, an increase of 10 percent from 2013 to 2014 (Duggan et al). The study also found that Facebook was by far the most widely used social media tool used with adults (18+) and between the ages of 18 and 29, see Figure 1. Among 18 to 29 year olds, 87 percent identified themselves as a user of Facebook compared to 58 percent of all adults. Seventy percent of Facebook users visited the website on a daily basis. Although widespread use of social media is known, little information is available with regards to the effectiveness that social media has with recruiting and communication at university programs.

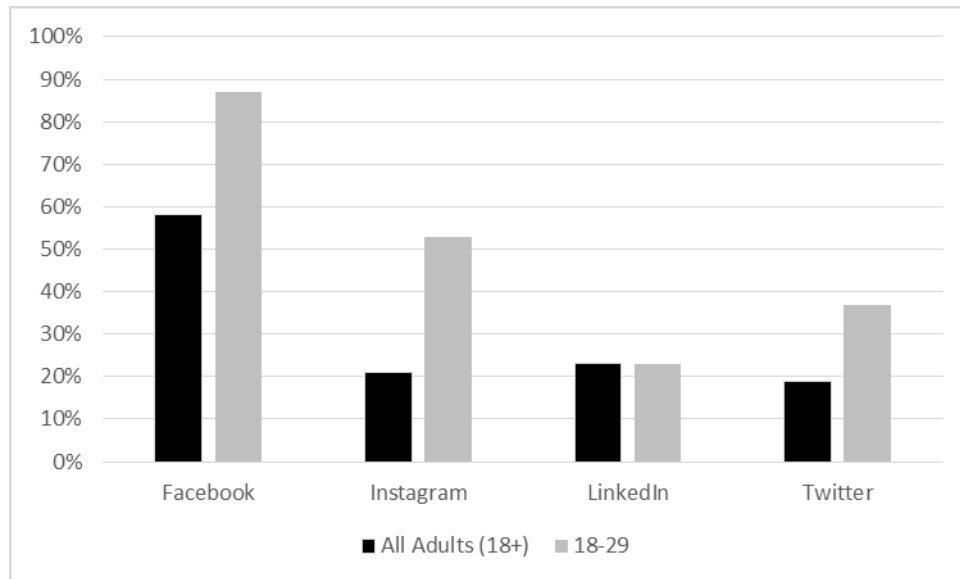


Figure 1: Pew Research Center Social Media Users (Duggan et al, 2015)

Past Research with Social Media in University Programs

Social media in itself is only considered the platform, for social media to be effective ‘social networking’ must exist; this includes: consistent flow of information, engagement of persons across media platforms, relationship building within the community, and timely conversations (Edosomwan et al, 2011). In order to measure the effectiveness of adopting social media within a university program, several studies were found that conducted in-house studies with their social media use. The three objectives of initiating social media in the CM program mentioned above was to: (1) promote communication to the current student body, (2) stay in touch with alumni, and (3) recruit future students. Evidence from previous research was found to support all but one of the CM program objectives.

Communication to the Current Study Body

Davis et al (2012) provides a list of reasons that social media has been found to help communication within college departments:

- it provides an effective public relations strategy with 18 to 29 year olds;
- it provides live, up-to-the-minute notices of events;
- it can share the work of students, faculty, visiting scholars, and alumni;
- it can be used as a blog for pedagogical reasons;
- and, it can promote personal connection between faculty and students.

To Stay in Touch with Alumni

A 2009 study found two major benefits with keeping in touch with alumni through social media in an engineering department: (1) social media significantly increased response rate with past alumni; and (2) alumni used social

media to communicate with one another, even offering opportunities (jobs) to fellow alumni through social media (Estell, 2009).

Recruit Future Students

A 2012 study done at the College of Technology within Purdue University found their Facebook and Twitter accounts provided little to no value for recruiting compared to other recruiting tools (Sadowski et al). None of the freshman surveyed had heard of the program first through social media, rather learned about the program through the programs website or referrals from parents, friends, or counsellors. The study also found that the social media efforts was found to be the least beneficial for a source of information or influence in students. Another study found no observable gains with enrollment through recruiting engineering students through social media (Klosky et al, 2010)

Research Objective and Methodology

The objective of this study was to identify which social media would be the most effective for communicating to CM students before, during, and after their higher education studies at the University of Oklahoma. The research methods used a two part study: (1) looking at external programs social media usage and (2) an internal survey of the CM programs usage. First, the researcher conducted an analysis of similar CM programs around the country to identify common social media uses. The researcher used a sample set of CM programs from the 2015 American Council for Construction Education (ACCE) accredited baccalaureate programs. The CM programs' individual website were reviewed and recorded for any current social media links. The data collected was limited to the CM programs providing a link to their social media pages on their home website, the author recognizes the limitations with this method as a CM program may not have a link to their social media tool on their homepage. In order to be counted as a user of a social media tool the CM program had to have a unique account related to the CM program and not the college or department in which it is located.

The second research method consisted of a survey conducted with current CM students enrolled at the university program mentioned above. A link to an online Qualtrics survey was provided to the CM student body and an invitation was announced within classes. General demographic questions were included with the survey in order to compare between age, gender, and class. Two main questions captured data on the students' current use of social media and the likelihood that the students would follow a program social media account.

Research Data and Findings

Analysis of CM Programs Use of Social Media

In total 74 ACCE accredited programs were reviewed, the researcher reviewed both if the CM programs had a social media site and how often they posted new items on their Facebook site in the past year (Sep 2014-Sep 2015). Among the 74 CM programs 27 percent used at least one social media tool, Figure 2 provides a map view of the 20 ACCE programs with social media.



Figure 2: ACCE CM Programs with Social Media

Facebook was the most popular social media tool used among all CM programs with 23 percent (see Table 1). Twitter, LinkedIn, YouTube, and Instagram rounded out the top social media tools. Google + was not used within any program. Out of the 17 Facebook users, 65 percent (11) had posted fifty or more posts in the past year, 12 percent (2) of the accounts were found to have posted less than 10 times in the past year. However, after reviewing the individual Facebook accounts there was very little evidence found that networking was occurring on the accounts. The majority of the Facebook accounts included posts on future and past events, with little interaction or post from followers.

Table 1
Social Media Users within ACCE CM Programs (N=74)

Tool	#	%
Facebook	17	23%
Google +	0	0%
Instagram	1	1%
LinkedIn	7	9%
Twitter	8	11%
YouTube	2	3%

Survey of CM Students Social Media Use

The first question stated: “how frequently do you use the following social media tools”, the list included (Facebook, Google +, Instagram, LinkedIn, Twitter, and YouTube). The students rated their usage with a qualitative scale that equated to a 7-point Likert scale: (daily; a few times a week; once a week; a few times a month; once a month; a few times a year; never). In total, 53 CM students took the survey, the response from question one can be found in Table 2. Facebook was found to be the most prevalent social media tool among CM students. Ranked in order of usage at least once a week was: Facebook (79%); YouTube (68%); Instagram (40%); Google + (34%); Twitter (28%); and LinkedIn (15%). Nearly 50 percent of the class had never accessed a Google +, Instagram, LinkedIn, or a Twitter account.

Table 2

Current CM Students Usage of Social Media Tools

Usage	Facebook	Google+	Instagram	LinkedIn	Twitter	YouTube
Daily	45%	15%	23%	8%	19%	32%
A few times a week	25%	8%	15%	4%	6%	23%
Once a week	9%	11%	2%	4%	4%	13%
A few times a month	8%	6%	8%	11%	6%	8%
Once a month	0%	2%	2%	8%	2%	6%
A few times a year	2%	2%	2%	8%	9%	4%
Never	11%	57%	49%	58%	55%	15%

Converting the qualitative 7-point Likert scale to quantitative numbers with 'daily' representing a 7 and 'never' representing a 1. The ranked order of the mean scores (see Figure 3) was as follows: Facebook (5.6); YouTube (5.1); Instagram (3.6); Google + (2.9); Twitter (2.8); and LinkedIn (2.4).

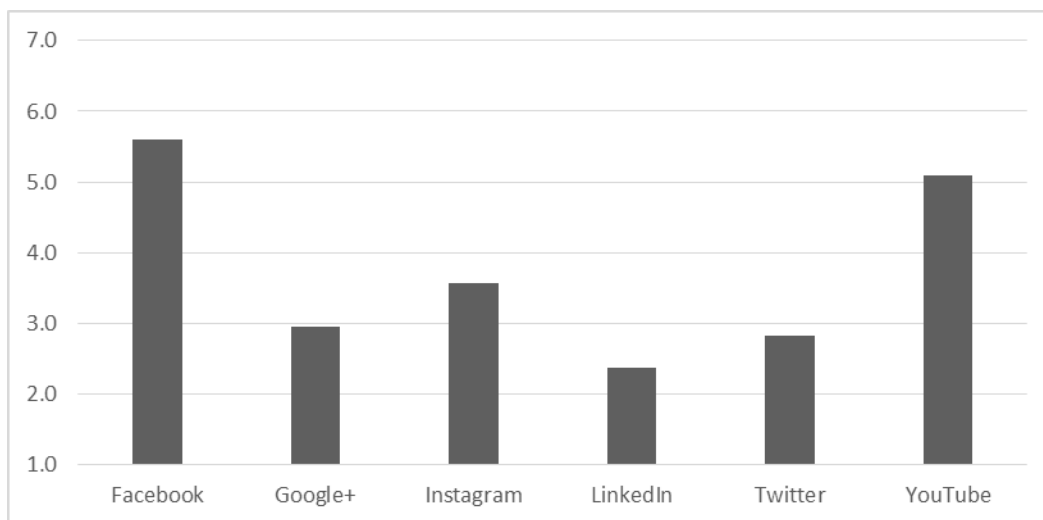


Figure 3: The Mean Score of CM Students Social Media Usage

Table 3 shows the usage of Facebook by the different age categories, 71 percent of the 18 to 20 year old students use Facebook daily, 85 percent use it on a weekly basis.

Table 3

Current CM Use of Facebook by Age

Usage	18-20	21-23	24-26	27-29	30+
Daily	71%	21%	0%	25%	13%
A few times a week	14%	7%	40%	0%	13%
Once a week	0%	10%	0%	0%	0%
A few times a month	0%	3%	0%	25%	0%
Once a month	0%	3%	0%	0%	0%
A few times a year	0%	0%	20%	0%	13%
Never	14%	55%	40%	50%	63%

The second question of the survey asked: "what is the likelihood you would follow these social media site(s) to receive updates and news from the Construction Science Division?" The students rated their usage with a qualitative

scale that equated to a 4-point Likert scale: (likely; somewhat likely; unlikely; very unlikely). Again Facebook was found to be the most effective website to keep in touch with the students, see Table 4. The results provided clear reason to adopt Facebook, with 94 percent stating that they would likely follow a CM program Facebook account.

Table 4

Likelihood CM Student Would Follow Social Media Tools

Usage	Facebook	Google+	Instagram	LinkedIn	Twitter	YouTube
Very Likely	79%	6%	34%	21%	49%	19%
Somewhat Likely	15%	13%	34%	40%	30%	25%
Unlikely	2%	40%	9%	13%	4%	25%
Very Unlikely	4%	38%	23%	21%	17%	28%

Converting the qualitative 4-point Likert to quantitative numbers with 'very likely' representing a 4 and 'very unlikely' representing a 1. The ranked order of the mean scores (see Figure 4) was as follows: Facebook (3.7); Twitter (3.1); Instagram (2.8); LinkedIn (2.5); YouTube (2.3); and Google + (1.8).

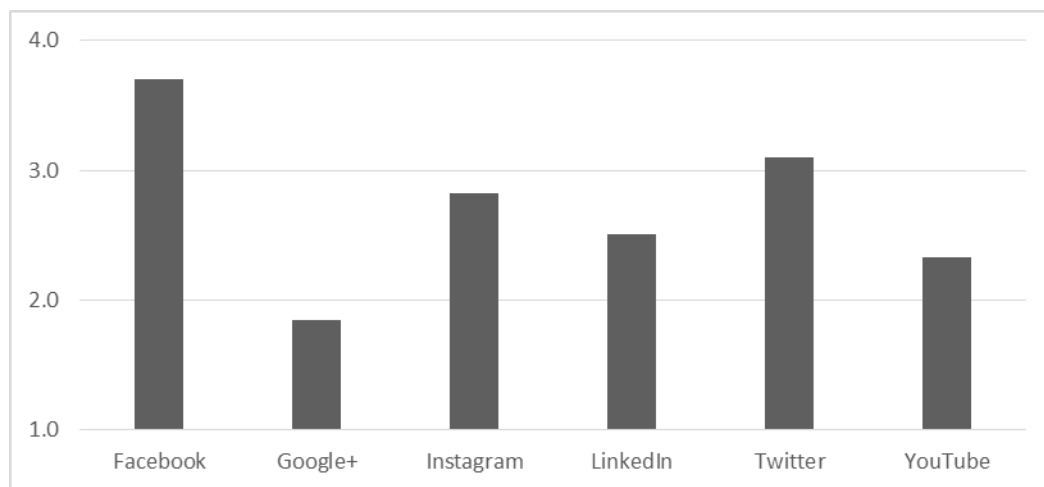


Figure 4: The Likelihood Mean Score a CM Student Would Follow a CM Program Social Media

Among the age groups, again the large majority of 18-20 year old students would be in favor of following the CM programs Facebook account, see Table 5.

Table 5

Likelihood CM Student Would Follow a CM Program Facebook Account

Usage	18-20	21-23	24-26	27-29	30+
Very Likely	86%	0%	40%	25%	50%
Somewhat Likely	14%	21%	40%	75%	25%
Unlikely	0%	38%	0%	0%	13%
Very Unlikely	0%	41%	20%	0%	13%

Research Discussion

The CM programs objective of the study was to identify which social media tool would be the most effective for assisting in three different communication areas: (1) promote communication to the current student body, (2) stay in

touch with alumni, and (3) recruit future students. The literature review provided support that social media could assist with the first two communication objectives, but little evidence was found to support how social media would help with recruiting. An analysis of similar ACCE accredited CM programs was conducted and found that just over a quarter (27 percent) of the CM programs across the nation have placed resources into social media at the time of the study. Figure 1 presents a map of the CM programs that have at least one social media website. Of the 27 percent of programs that used social media, Facebook was utilized in 23 CM programs or 85 percent. Sixty five percent of the CM programs using Facebook showed that they dedicated extensive resources by posting at least 50 post within the past year, however very little social networking was observed with these posts.

The survey collected from the students provided clear evidence that a Facebook account within the CM program would be the most effective communication tool for students. Of the six tools studied 79% of the students used Facebook on a weekly basis. Ninety four percent of the students surveyed showed interest in following a CM program Facebook account. Interestingly, Twitter and LinkedIn were found to be used in 10 percent of the ACCE programs but were used the least among CM students; this may be due to the tools unique purposes.

Discussion within the CM program occurred prior to the study that the age of the students would impact the social media preference. Some Faculty within the program suggested that Instagram would be more utilized with the younger aged students, this was found to be false as Facebook was clearly utilized more often in all age categories (see Table 3). However, the 18-20 year old group were found to utilize Instagram the most frequently, supporting the PEW research centers findings that Instagram has been gaining in popularity among the younger generations (Duggan et al, 2015).

Conclusion

In 2015, the University of Oklahoma, Construction Science Division began a study to identify social media use and effectiveness in order to adopt and implement a social media tool(s). The program's three objectives with using social media were: to communicate to current student body, stay connected to past alumni, and recruit future students. A review of the literature found little findings related to Construction Management (CM) programs and thus became the basis for this paper. The researcher conducted a study of similar CM programs usage with social media and also performed a survey across the student body in the Construction Science Division at the University of Oklahoma. The research examined the following six social media tools: Facebook, Google +, Instagram, LinkedIn, Twitter, and YouTube.

The findings solidly pointed to Facebook as the most effective tool to communicate to the current CM student body; as the majority of them (79 percent) used Facebook on a weekly basis and 94 percent of them showed that they would likely follow a program Facebook account. Studying CM programs across the country only 27 percent used at least one social media tool. Among those that used social media, again the majority (85 percent) selected Facebook as a social media tool. The other five tools showed signs of both interest and use from the students, but only Twitter (11%) and LinkedIn (9%) were found to be used in CM programs across the nation.

Future research opportunities can explore the potential metrics to understand the effectiveness that social media has with the three goals of communicating to CM student bodies, staying in touch with CM alumni, and recruiting CM students. Additional examination of the CM programs that were found to use social media could identify results and effectiveness with regards to the three objectives of this study. Further research could also explore the perceptions and opinions of the majority (73 %) of the CM programs that have not elected to use social media.

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