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The role of social media in the construction industry

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Abstract

The construction industry is not widely perceived as innovative and collaborative as many other industries. The construction industry worldwide is trying hard to change this perception using several short and long term strategies. Over the last few years, social media has changed the face of our personal interactions, with an unprecedented rate of adoption that outpaces previous innovations. Social media tools are intuitive to use and allow people to share information, collaborate, discuss common interests and build relationships. This research study focuses on the current and potential usage of social media within the construction industry. To expound, it investigates the social media platforms currently being utilized amongst construction organizations, analyzes the potential rewards and risks, and examines the innovation they provide specifically to make communication and collaboration more effective. To achieve these objectives, quantitative and qualitative data were collected from individuals and organizations within the construction industry. A social media log was developed to track activities on Facebook\textsuperscript{®}, LinkedIn\textsuperscript{®}, and Twitter\textsuperscript{®} platforms for ten construction organizations with social media presence. Additionally, a survey questionnaire was distributed to construction industry professionals. Finally, open-end interviews were conducted with individuals from three construction organizations familiar with social media as a company resource. Results of data analysis reveal that many construction organizations are beginning to take advantage of social media benefits, but in general, the construction industry lags behind most other industries in terms of social media usage. The construction companies are using social media for the following applications: (1) recruitment; (2) disseminating company’s and/or projects’ news; (3) client networking; (4) brand awareness; and (5) Showcasing innovations. It is found that most companies have not explored the full potential of social media and only using it as a sporadic one-way communication tool. Construction organizations must invest sufficient time and resources to support daily operations, maintenance, and security of social media resources in order to gain best results.

Keywords: Collaboration; Communication; Innovation; Information management; Social media.

1. Introduction and Background

Effective communication is one of the pillars of success within the construction industry. Collaborating and effectively connecting people and information in construction projects provides biggest potential for cost savings in the industry today (Pepper, 2013). An ever evolving resource that has recently enhanced this stream of communication is social media. This concept refers to interaction between individuals, groups, and organizations through the use of virtual communities and networks. More specifically, social media enables users to connect by creating personal information profiles, inviting friends and colleagues to have access to those profiles, and sending e-mails and instant messages between each other. These personal profiles can include any type of information, including photos, videos, audios, and text (Kaplan & Haenlein, 2010). Common examples of social media resources include: Twitter\textsuperscript{®}, Facebook\textsuperscript{®}, YouTube\textsuperscript{®}, LinkedIn\textsuperscript{®}, and Instagram\textsuperscript{®} as well as personal and professional web logs (blogs), video web logs (vblogs), and podcasts.

Organizations of all kinds, including the construction industry, are beginning to adopt these new resources to better serve their communication needs. To parallel this concept of value-added communication, social media also allows for potential improvements relative to knowledge management. Using social media, companies are exploring new ways to cultivate and exploit knowledge sharing with their customers, suppliers, and partners both inside the organization and outside strict organizational boundaries (Razmerita, Kirchner, & Nabeth, 2014). Such innovative means of collaboration provide new avenues for construction companies to share and communicate information both internally, with employees in same or different locations, and externally, with potential clients and other companies. As a result, the magnitude of information diffusion within an organization has significantly increased, thus allowing for improved workload efficiency, increased business opportunities, and enriched customer service.

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A recent survey from Experian revealed that Americans spend an average of 16 minutes of every online hour on social media (Thompson, 2013). The same, however, cannot be said for the construction industry. According to a study conducted by infolink.com.au (Australia’s Architecture, Building, Construction and Design Directory), one third of businesses in the building and construction industry are still not using social media. The survey of more than 1,126 businesses revealed 36 percent of businesses are not sure how to use social media to engage their market. Furthermore, the survey revealed 72 percent of businesses know having a strategy for social media is important but they are unsure how to create this strategy to engage their followers (Trenchless International, 2014). In response to such uncertainty, groups such as the Associated General Contractors of America (AGC) have begun to educate the construction industry concerning the effective utilization of social media platforms within an organization. For example, during the AGC’s 92nd Annual Convention, a seminar entitled “The Next Step in Social Media: Rethink Strategies, Reinvest Resources, Reconnect Relationships, and Rebuild Networks” was presented. The key point from the presentation stated that although social media cannot deliver instant success, save a sinking ship, guarantee influence, or replace a marketing strategy; it provides the opportunity to improve multiple aspects of an organization including: marketing, connections, support, education, communication, recruiting, and research (DeVries, 2011). Moreover, a new wave of leaders in the building industry are paving the social media path, showing by example that “tweets” and “posts” have an important place in the world of construction (Basalyga, 2013).

While social media presents potential benefits relative to internal and external communication and collaboration, risks and challenges also exist that cause construction companies to become hesitant when considering implementation within their organization. In general, the risks associated with social media use can be clumped into two groups: technological threats and content-based threats. The technological threats are the obvious risks such as malware distribution and infection. Content-based risks include inappropriate distribution of intellectual property or offensive content, phishing, retention of business records and revelation of private or confidential information in a public setting (Colley, Sehmbi, & Walls, 2011). Beyond the risks of implementing social media, construction industry firms and individuals also face confusion both about how to use the tools and how to measure success (Schriener, 2009). For many construction firms of all sizes, social media use and presence can be a hit, a miss, or just not part of the mix at all. As a result, construction companies beginning to utilize social media need to understand the time commitment required even though many tools are low cost or free (Joyce, 2011). Even for everyday social media practitioners, training of employees is still needed to deploy social media successfully (Razmerita, Kirchner, & Nabeth, 2014). The construction organizations must be willing to invest ample time, manpower, and dedication when considering the incorporation of social media into their organization.

2. Research Aim, Objectives, and Methodology

The aim of this research is to explore the current and potential usage of social media within the construction industry, study relative challenges, risks and rewards, and examine the innovation it provides. The objectives of this research include: (1) Investigating the social media resources currently utilized within the construction industry; (2) Analyzing the potential benefits, relative challenges, and associated risks; (3) Comparing and contrasting the utilization of social media amongst construction organizations of varying size and scale; and (4) Determining the innovation that social media provides to the construction industry in terms of improving communication and collaboration.

This study employed a mixed methods research design. Quantitative data is collected by preparing social media usage logs for ten medium-to-large construction companies in the Southeast USA. The timeframe of tracked activities is from February 2013 to February 2014. The qualitative data is collected by conducting a questionnaire survey of key stakeholders (e.g. project managers, human resources managers, communication/marketing officers) to get their perceptions about the benefits, challenges and associated risks of using social media. It is followed by conducting in-depth open end interviews with three selected survey respondents. Once all data are collected, in-depth analysis is performed to compare and contrast the social media usage trends within the construction industry. This paper reports some of the main findings of this research study. The researchers plan to publish full results after performing more rigorous data analysis.
3. Results and Main Findings

3.1. Quantitative Analysis – Social Media Usage Logs

To quantify social media usage within the construction industry, ten construction companies with social media presence were tracked on Facebook®, LinkedIn®, and Twitter®. Each organization’s activities on these social media platforms, from February 2013 to February 2014, were logged relative to category of information as shown in Figure 1. It is found that these companies are using social media for the following purposes: (1) Announcing job openings; (2) Disseminating project news; (3) Company’s branding; (4) Client networking; (5) Company’s communication; and (6) Training and industry information. Twitter® is found to be the most preferred social media tool. The Twitter® posts count for 8 out of the 10 organizations exceeded the respective combined number of posts on Facebook® and LinkedIn®. On average, the Twitter® posts per month are found to be 45.

Figure 1: Social Media Usage Logs for 10 Medium to Large Size US Construction Firms (Data collected between Feb. 2013 to Feb. 2014)
3.2. Qualitative Analysis – Survey and Interview Results

The questionnaire survey was sent to 105 individual organizations within the US construction industry using purposive sampling. Fifty eight (58) valid responses were received yielding a response rate of 55%. The respondent organizations represents different trades within the construction industry and their usage of social media is at different levels as shown in Figure 2.

After analyzing the survey data, three in-depth open-end interviews were conducted with the selected respondents. The interviewees were: (1) Vice President of communications and marketing of a large general contracting firm; (2) Public affairs specialists of a military construction organization; and (3) Marketing coordinator of an engineering consultant firm. The combined results of the questionnaire survey and interviews are presented in the following sections.

3.2.1. Social Media Impact Recruitment

Nearly sixty percent (60%) of survey respondents consider social media as an effective marketing tool for hiring new employees for their organization. The interviewee #3 said “I think the recognition alone we would get from using social media would allow us to reach potential employees in a different way than we currently do. Depending on the type of employee we’re trying to reach, that might be the optimum place to contact them”. Overall, data suggests that social media could significantly aid in hiring new qualified employees.

3.2.2. Social Media Impact on Disseminating Company’s or Projects’ News

Data obtained from the questionnaire revealed 55% of surveyed individuals believe social media is an effective tool for disseminating real time company’s or project’s news to the public. Conversely, when considering impact on communication and collaboration amongst all parties involved on a construction project, almost one-third (34%) of surveyed individuals consider social media to be an effective tool. From these results, it is evident that current social media usage within the construction industry to broadcast company and/or project news is a regular and consistent practice. However, this information focuses more on project metrics such as construction milestones achieved and progress updates rather than communication and collaboration enhancement amongst project specific individuals. Interviewee #2 explained it as follows, “I think having an effective overall communication plan for our construction program, to include social media, is most important. Ultimately, however, social media is just another tool in our communication tool belt to get the word out concerning our construction program”.

3.2.3. Social Media Impact on Company Branding

Information broadcasting relative to company’s branding is found to be prevalent use of social media within the construction industry, with 84% of the surveyed individuals indicated their organizations using or plan to use this practice. Branding communications include information such as company’s recognition within the industry and charitable efforts within the surrounding community. Interviewee #1 explained the significance of social media relative to company’s branding by stating, “One of the things we want to be known for is making a
positive difference in our communities. Getting that type of information out there in the social media arena helps support that brand message. It also helps build the pride of our employees. So, for the purpose of brand recognition, people visit our social media platforms to learn about XXX, and we are able to promote the image we want”.

3.2.4. Social Media Impact on Client Networking

Nearly 66% of surveyed individuals think social media to be an effective tool for linking with the clients. From the perspective of an organization trying to employ a strong social media program, Interview #3 said, “I think we would better link with the clients if we develop a social media plan, and that would allow us to share information about ourselves with our potential clients they might not learn through other avenues”. Survey data further suggests that this category of information sharing shows potential to increase within the construction industry as social media utilization becomes more prevalent.

3.2.5. Social Media Impact on Training and related Information

Seventy-five percent (75%) of surveyed individuals think social media to be an effective tool for providing organizational training opportunities and related information. Additionally, 57% believe employees’ participation concerning training would increase if offered through social media avenues. Interviewee #3 shared her perspective by stating, “Social media might be something we would want to use to share information externally to show that training is important to the company and that our employees are always learning and developing their careers”. Twitter® found to be the preferred platform for most executives to share such information.

3.2.6. Risks and Challenges Concerning Social Media

The risks and challenges associated with social media can push construction companies to become hesitant when considering implementation within their organization. In the questionnaire, when queried if social media creates security risks concerning the unauthorized dissemination of information within an organization, 82% of the surveyed individuals responded “yes”. Additionally, when asked if social media creates technological risks concerning potential malicious software distribution and computer infection, 60% responded “yes”. The survey respondents were also asked if they think the benefits of social media within an organization outweigh the associated risks and challenges. Fifty-five percent (55%) of the participants responded “yes”. Interviewee #1 explained it as follows: “To have any type of a voice in the social media arena, there is some tending and nurturing required. Although these resources are free, there is cost associated with necessary upkeep and maintenance of a social media presence. As a result, people and organizations need to be aware, as they enter the social media realm, that time and cost are associated with creating a successful social media plan otherwise it will be very difficult to maintain a presence and connect with other people and organizations”.

3.2.7. Innovation and Collaboration Provided by Social Media

Organizing effectively for social media excellence brings the promise of fundamentally transforming organizations by allowing them to harness the power of mass collaboration, to break the “silos,” and to reap the benefits of more fluid configurations (Weinberg et al., 2013). The three interviewees were asked to provide their professional opinion concerning innovation social media provides to an organization. Interview #1 said, “I think these social media platforms will continue to develop and offer new advantageous resources for the industry. The spirit of all these sites is building the connectivity, teamwork, and collaboration within the industry.” The point of view of interview #2 is as follows; “Social media can provide additional means to communicate everything our company is doing for our clients, our employees, and our community to individuals and organizations all throughout the construction industry”. Whereas interview #3 mentioned, “It allows us to communicate much faster than ever before, and to a much wider audience”.

To further understand the impact social media has on collaboration, examples from other professional arenas such as the academic community should also be considered. Internet access in homes, schools and communities has become increasingly available which lead to an emergence of a new digital landscape that fundamentally changed both current and future students in colleges and universities across the world. Students today have around the clock access to a wealth of information to invest and discover new knowledge (Ghanem et al., 2014). Moreover, the frequent usage of social networking sites offers a unique new teaching opportunity to instructors. Because many students are familiar with these programs and the technology involved, instructors can utilize the communication tools in these programs to engage students in a manner comfortable and enjoyable to them.
In essence, social networking is part of today’s life and is being used by people of all ages and for the widest variety of purposes (Ghanen, El-Gafy, & Abdelrazig, 2014). In a nutshell, the innovation social media provides to an organization within the construction industry can be realized through multiple aspects of communication and collaboration. In addition, as these technologies continue to develop, further innovation will continue to advance these resources.

4. Conclusions and Recommendations

From quantitative and qualitative data analysis, it is evident that social media tools such as Facebook®, LinkedIn®, and Twitter® are progressing methods of communication within the construction industry. The social media activities covers a wide realm of information categories such as company branding, disseminating project news, information on job hiring, Client networking, etc. Additionally, this information is being disseminated both internally and externally allowing for a much broader audience. The survey data concerning overall communication capabilities of social media revealed 80 percent of respondents find it beneficial for external purposes while 50 percent think it is beneficial for internal means as well. In essence, social media resources provide additional aide to a construction company’s communication program allowing for faster information sharing to a larger network of people and organizations. Despite these observations, however, social media is yet to be mainstream as a communication tool throughout the construction industry. The survey data revealed three factors attributing to this lack of utilization: Security issues, Privacy issues, and Lack of understanding. It is also found that most companies have not explored the full potential of social media and only using it as a sporadic one-way communication tool.

The following items outline recommendations for enhancing utilization of social media within the construction industry: (1) Sufficient time and funding should be allocated to support daily operations, maintenance, and security of social media resources; (2) Information dissemination on social media platforms should be regular and consistent to maintain a social presence among individuals and other organizations; and (3) Proper training should be provided to company employees to better orient them with the resources social media provides and how to use them to best represent their organization.

References