NEW MEDIA COMMUNICATION PREFERENCES

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ABSTRACT

According to Barelka, Jeyaraj, and Walinski, “New Media is conceptualized as an umbrella class of information and communication technologies that is intended to connect individuals in novel and meaningful ways” (2013: 56). As part of the process of continuous quality improvement, a study was conducted in the College of Business and Entrepreneurship at a rural Midwestern university. The survey sought to determine business student preferences for the use of various types of new media to receive information from the Dean’s Office. Facebook, smartphone, and YouTube were the most popular among the students in the study; therefore, the researchers focused on these three new media. No statistically significant differences were found for these three media on the basis of age and gender with respect to the likelihood of new media usage as a communication tool by the Dean’s office.
INTRODUCTION

Current college students are considered digital natives. Many students use laptops, tablets, and/or smartphones to connect with media such as Facebook, YouTube, Blogs, Twitter, Photo Sharing, and Wikis. Colleges and universities need to determine how to communicate with current students as they are important stakeholders in the communication process. This study was undertaken to determine current student preferences regarding communication media. The popular view is that their communication expectations can be fundamentally different from other generations. Therefore, the researchers sought to determine if generational differences existed in the College of Business and Entrepreneurship at a rural Midwestern university.

REVIEW OF LITERATURE

A General Overview--Current Use of New Media

The prevalence of new media usage was reported in a recent study by the Pew Research Center. The Pew Research Center’s Internet & American Life Project Survey (2012) showed that Facebook was used by two-thirds of those surveyed as presented in Table 1 on page 4. In addition, young adults are more likely than others to use major social media. Twitter, Pinterest and Instagram generally showed the same level of usage. Tumblr was the least used. These findings were the result of the first Pew Research poll comparing responses from whites, African-Americans, and Latinos.
However, Gerlich, Browning and Westermann created a Social Media Affinity Scale and concluded that . . . no significant differences exist between males and females in their internet usage, social media usage, and also beliefs about social media sites in general. We propose that there is now an opportunity to leverage social media in college courses to deliver content and engage students in ways not previously possible. (2010: 35)

**University Student Communication Preferences**

Numerous communication options are available for students. Lightfoot (2009) noted that a wide variety of communication options are available for communicating with students and student preferences may differ based upon whom they are communicating with and the context of the communication. He administered a survey to 596 undergraduate business students. The results of the study indicated that a student's media preference varies depending
upon the characteristics of the medium, the context of the message, and the target of the communication.

Understanding communication preferences of college students with visual disabilities was studied by Myers, Lindburg and Bastian (2011). They conducted a qualitative study to determine the preferences in communication styles and techniques of students with visual disabilities in their interactions with others within the higher education setting. The results of 35 interviews indicated respect for others, comfort during interactions, and awareness of disability issues were key factors leading to effective communication between persons with and without visual disabilities.

Chen, Jones, and Xu (2012) conducted a study about preferred methods of communication of college students in the United States. Electronic mail (e-mail) use on either computers or smartphones was regarded as the most frequent method used to communicate with classmates, group members, and professors. Aside from instant message use, the survey also examined the use of social networking sites such as Facebook and Twitter. The results of the study indicated that students preferred to use their laptop computers more than other devices.

A study by Robinson and Stubberud (2012) examined the preferred communication methods for work/school and social purposes of university students in the United States and Norway. Their results showed that, despite the popularity of technology, the students expressed a preference for face-to-face communication over all other methods for both work/school and social communication.

Booth (2009) examined student interest in library technologies at Ohio University and concluded that libraries must adapt to the times with emerged and emerging technology to meet student/customer needs. Ruleman (2012) studied both faculty and student use of technology at the University of Central Missouri including ownership of devices, browser preferences, web tools and social sites, and mobile technology. The goal was to improve library use of technology. This study did not find significant differences in use of the tools based on age differences. “The library has already added a Facebook page, a text-a-librarian service, QR codes, and we are looking for other ways to expand services with other technology patrons are using” (2012: 19).
Facebook

Much of the existing literature focuses on the psychological effect of Facebook. Ellison, Steinfield, and Lampe (2007) examined the relationship between the use of Facebook and the formation and maintenance of social capital. In addition to assessing bonding and bridging social capital, they explored a dimension of social capital that assessed one’s ability to stay connected with members of a previously inhabited community. They called this dimension maintained social capital. Regression analyses conducted on the responses of 286 undergraduate students suggested a strong association between the use of Facebook and the three types of social capital. The strongest relationship was with bridging social capital. Additionally, they found Facebook usage interacted with measures of psychological well-being, which suggested that it might provide greater benefits for users who experienced low self-esteem and low life satisfaction.

Seidman (2012) examined personal influences and motivations for the use of Facebook. Nadkarni and Hofmann proposed a dual-factor model of Facebook use based on two social needs: (1) the need to belong, and (2) the need for self-presentation. They concluded that “these two motivational factors can co-exist, but can also each be the single cause for Facebook use” (2012: 243). Birnbaum found at least six standardized fronts that “students use to help ensure they give peers the impression of conforming to appropriate undergraduate norms” (2013: 155).

Whitehill, Brockman, and Moreno examined the use of Facebook to communicate with university students who indicated that they were depressed and concluded that . . . in-person communication from friends or trusted adults was the preferred means for raising concerns about a student’s signs of depression displays on Facebook. Programs that encourage resident advisors and peers to respond in this manner and encourage treatment may represent a way to improve access to care for depression. (2013: 122)

Another area of research focuses on Facebook as a communication and marketing tool. For example, Dholakia and Durham (2010) created a company Facebook page and examined the impact on customer behavior. They concluded that Facebook can be effective: “Though they spent about the same amount of money per
visit, they increased their store visits per month after becoming Facebook fans and generated more positive word of mouth than nonfans” (2010: 26).

**Smartphones**

Smartphones have a variety of potential communication uses as they are essentially small laptops equipped with apps. According to a 2012 Pew Research Center survey, 66 percent of those respondents ages 18-29 were smartphone owners. Barkhuus and Polichar researched the working adults use of mobile phones and reported that “Users used phones in highly individual manners; mixed and adapted existing functions to meet their own priorities; added some functions and ignored others to create their own portfolio; and blended their use with the specifics of their everyday lives” (2011: 629).

**Texting:** A review of literature yielded limited information with respect to university applications of smartphones; however, smartphone applications have been developed for healthcare marketing. The educational community could learn more about the use of smartphones from these two areas.

McClure, Acquavita, Harding and Stitzer examined the use of technology with patients enrolled in substance abuse treatment and concluded that “Results suggest that mobile phone and texting applications may be feasibly applied for use in program-client interactions in substance abuse treatment” (2012: 145).

Hingle, Nichter, Medeiros and Grace reported on a study of 300 text messages to “influence the nutrition and physical activity knowledge, attitudes, and behavior of adolescents” (2013: 12). They noted that language use impacts how the messages are interpreted. Focus groups and classroom discussions reinforced that teens are sensitive to certain language. For example, messages that used a more authoritarian tone (e.g., “you should” or “you need to”) were universally panned by youth, who stated messages should never contain these phrases and noted that “kids don’t like being told what to do. (2013: 18)

**Mobile Location-based Services and Advertising:** Mobile Location-based Services, such as GPS, are emerging tools of mobile marketing and communication. “Location-based services have attracted considerable attention due to their potential to transform
mobile communications and the potential for a range of highly personalized and context-aware service” (Dhar & Varshney, 2011: 121). The authors discussed the technological challenges faced by location based services that “depend on and are enhanced by positional information of mobile devices” (2011: 122). Applications include wireless coupons, targeted customized ads, marketing promotions and alerts, and customer notification while shopping in stores (2011: 124).

**Mobile Applications.** Research shows that specific audiences are using mobile applications for communication. White (2011) conducted a national, on-line survey and received 916 responses. The purpose of the survey was ”to quantify iPhone usage (Apple Inc., Cupertino, USA), assess application (app) use and identify future areas for anaesthesia-specific app innovation” (2011: 630). White concluded the “Anaesthetists use apps to access material difficult to use or unavailable in hard copy form such as medical calculators, logbooks, resuscitation algorithms and demonstration videos” (2011: 631).

Gupta (2013) examined the use of apps in marketing and concluded that apps will add convenience such as paying online, checking in and monitoring the status of flights, and placing grocery and restaurant food orders. “Mobile advertising is often a hollow phrase, but mobile apps can enable marketers to communicate with consumers in a format that enhances their lives and offers long-term value” (2013: 75).

**Twitter.** Twitter has been used as an interactive communication tool at a medical conference. McKendrick, Cumming and Lee examined the use of twitter at an anesthetist conference in Edinburgh and found that 69 percent of the tweets concerned learning points from the event, future event plans, support for speaking colleagues and for social reasons (2012: 439). The authors recommended that “Conference organizers would have an obligation to educate participants regarding Twitter etiquette, protecting their personal identity as well as appropriate legal and ethical considerations” (2012: 439).

**YouTube**

A review of literature yielded limited information with respect to university applications of YouTube. As with smartphones,
the healthcare profession has developed applications for the use of YouTube. The educational community could learn more about the use of YouTube from the healthcare profession. Pandey, Patni, Singh, M., Sood and Singh, G. (2010) found 142 videos had relevant information about H1N1 influenza and that over 60 percent of the videos had useful information and 17 percent had misleading information. The findings indicated that “A source-based preference is seen among the viewers, and CDC-uploaded videos are being used in an increasing proportion as a source of authentic information about the disease” (2010: e1).

Sood, Sarangi, Pandey, and Murugiah (2011) examined the use of YouTube as an information source on kidney stone disease. They concluded that the 199 videos (665 minutes in duration) contained useful information. The researchers also concluded that “Authoritative videos by trusted government sources, which in the past have been shown to be the most trusted sources by the general public, should be posted to prevent against misleading information” (2011: 562).

Steinberg, Wason, Stern, Deters, Kowal, and Seigne (2010) attained conflicting results. The authors analyzed YouTube prostate cancer videos for information content and the presence of bias and concluded that “although some videos are robust sources of information, given the preponderance of modest and unbalanced information among reviewed videos, YouTube is an inadequate source of prostate cancer information for patients” (2010: 619).

Two of the three medical studies concluded that YouTube videos provided useful information, while one study concluded that YouTube was an inadequate source of information.

RESEARCH PURPOSE

Universities must be capable of effectively communicating with both face-to-face and on-line students. Lightfoot (2009) noted that a wide variety of communication options are available for communicating with students and student preferences may differ based upon whom they are communicating with and the context of the communication. The results of his survey of 596 undergraduate
business students indicated that a student’s media preference varies depending upon the characteristics of the medium, the context of the message, and the target of the communication. One such challenge is determining which communication media to support and emphasize.

Based on the aforementioned research, our purpose for conducting this study was to determine business students’ preferences for the use of various types of new media for receiving communication from the Dean’s Office.

**METHODS AND RESULTS**

The Dean’s Office administered an online survey to 900 business students, and received 125 completed responses. There were 75 females and 50 males in this study. These included 88 students aged 30 or less and 37 students aged 31 or older. Freshmen through graduate students enrolled in the College of Business and Entrepreneurship were asked to select from five choices about the likelihood of using various types of new media for communication. The choices were (5) very likely, (4) somewhat likely, (3) not very likely, (2) not likely at all, and (1) not familiar with. The new media included Blackboard, Blogs, Facebook, LinkedIn, Photo Sharing, Podcasts, QR Codes, Skype, Slide Share, Smartphones, Social Bookmarking, Twitter, Virtual Worlds, Wikis, and YouTube. Demographic questions were also included in the survey.

Research Question: If the aforementioned new media tools were used by the Dean’s Office in the College of Business and Entrepreneurship to communicate information to you, how likely would you be to use the new media?

Of the various types of new media listed in the survey, the three most popular were Facebook, Smartphone, and YouTube.

For each of the three mediums, a two-way analysis of variance was conducted using SPSS 20.0. The dependent variable in each case was the likelihood of new media usage as a communication tool from the Dean’s office. In each case, the independent variables were age and gender. A significance level of 0.05 was used. Consistent with a study by Gerlich, Browning and Westermann (2010), no significant gender differences were found. Additionally,
no significant age differences were found, which is consistent with Ruleman's research (2012). However, the results of our study did provide valuable information.

Analysis of Facebook Usage

Table 2a shows the results of student preferences for the use of Facebook to receive communication from the Dean's office. The mean of 3.537 falls between (3) “not very likely” and (4) “somewhat likely”; therefore, a modest level of enthusiasm was exhibited by students for the use of Facebook as a communication tool by the Dean's office.

Table 2a – Facebook Usage
Grand Mean - Likelihood of new media usage

<table>
<thead>
<tr>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.537</td>
<td>.113</td>
<td></td>
<td>3.313</td>
<td>3.761</td>
</tr>
</tbody>
</table>

Table 2b shows the results of student preferences by age and gender for the use of Facebook to receive communication from the Dean's office.

Table 2b – Facebook Usage
Age by Gender - Likelihood of new media usage

<table>
<thead>
<tr>
<th>Age by Gender</th>
<th>Gender</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;=31</td>
<td>Male</td>
<td>3.308</td>
<td>.309</td>
<td>2.696</td>
<td>3.919</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>3.375</td>
<td>.227</td>
<td>2.925</td>
<td>3.825</td>
<td></td>
</tr>
<tr>
<td>&lt;=30</td>
<td>Male</td>
<td>3.405</td>
<td>.183</td>
<td>3.043</td>
<td>3.768</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>4.059</td>
<td>.156</td>
<td>3.750</td>
<td>4.368</td>
<td></td>
</tr>
</tbody>
</table>

Females less than or equal to 30 years of age (mean = 4.059) are clearly “somewhat likely” to prefer Facebook as a communication tool from the Dean's office. Males less than or equal to 30 years of age (mean = 3.405) exhibited a modest level of enthusiasm for Facebook. In the greater than or equal to 31 age category, both males (mean = 3.308) and females (mean = 3.375) exhibited a modest level of enthusiasm for the use of Facebook.
Analysis of Smartphone Usage

As with the previous analysis with Facebook, a two-way analysis of variance for smartphones was conducted using SPSS 20.0. The dependent variable was the likelihood of smartphone usage as a communication tool by the Dean's office. The independent variables were age and gender. A significance level of 0.05 was used. Again, consistent with a study by Gerlich, Browning and Westermann (2010), no significant gender differences were found. Additionally, no significant age differences were found. However, the results of the study did provide valuable information for the Dean's office.

Table 3a shows the results of student preferences for the use of smartphones to receive communication from the Dean’s office.

<table>
<thead>
<tr>
<th>Age by Gender</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3.385</td>
<td>.402</td>
<td>2.589-4.180</td>
</tr>
<tr>
<td>Female</td>
<td>3.542</td>
<td>.296</td>
<td>2.956-4.127</td>
</tr>
</tbody>
</table>

The mean of 3.589 falls between (3) “not very likely” and (4) “somewhat likely”; therefore, a modest level of enthusiasm was exhibited by students for the use of smartphones as a communication tool by the Dean’s office.

Table 3b shows the results of student preferences by age and gender for the use of smartphones to receive communication from the Dean’s office.

Table 3b – Smartphone Usage

<table>
<thead>
<tr>
<th>Age by Gender</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3.568</td>
<td>.238</td>
<td>3.096-4.039</td>
</tr>
<tr>
<td>Female</td>
<td>3.568</td>
<td>.238</td>
<td>3.096-4.039</td>
</tr>
</tbody>
</table>
Regardless of age and gender the level of enthusiasm was modest for the use of smartphones. The levels varied from 3.385 to 3.863. As with Facebook, the highest level of enthusiasm was shown by females 30 and under (mean = 3.863).

Females less than or equal to 30 years of age (mean = 3.863) are borderline “somewhat likely” to prefer smartphones. Males less than or equal to 30 years of age (mean = 3.568) exhibited a modest level of enthusiasm for smartphones. In the greater than or equal to 31 age category, both males (mean = 3.385) and females (mean = 3.542) exhibited a modest level of enthusiasm.

Analysis of YouTube Usage

A two-way analysis of variance for YouTube was conducted using SPSS 20.0. The dependent variable was the likelihood of YouTube usage as a communication tool by the Dean’s office. The independent variables were age and gender. A significance level of 0.05 was used. Again, consistent with a study by Gerlich, Browning and Westermann (2010), no significant gender differences were found. Additionally, no significant age differences were found. However, the results of the study did provide valuable information for the Dean’s office.

Table 4a shows the results of student preferences for the use of YouTube to receive communication from the Dean’s office.

Table 4a – YouTube Usage

<table>
<thead>
<tr>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.528</td>
<td>.104</td>
<td>3.323</td>
<td>3.734</td>
<td></td>
</tr>
</tbody>
</table>

The mean of 3.528 falls between (3) “not very likely” and (4) “somewhat likely”; therefore, a modest level of enthusiasm was exhibited by students for the use of YouTube as a communication medium by the Dean’s office.

Table 4b shows the results of student preferences by age and gender for use of YouTube.
When age and gender were considered, a modest desire for the use of YouTube was evident. The levels varied from 3.292 to 3.811. Contrary to previous mediums in this study, males 30 and under showed the highest level of enthusiasm (mean = 3.811).

### DISCUSSION OF THE RESULTS

The researchers sought to determine if generational differences among students existed in the College of Business and Entrepreneurship at a rural Midwestern university. Statistically, no significant differences were found for age and gender. However, the results of the study did provide valuable information for the Dean's office.

**Facebook Usage**

A modest level of enthusiasm was exhibited by students for the use of Facebook regardless of age and gender. However, women under 31 were more likely to favor use of Facebook as a communication tool by the Dean's office. Those 31 and older also exhibited a modest level of enthusiasm for the use of Facebook. These findings are consistent with the results of the study by Gerlich, Browning, and Westermann (2010).

**Smartphone Usage**

As with Facebook, a modest level of enthusiasm was exhibited for the use of smartphones regardless of age and gender; and females under 31 had the highest level of enthusiasm. Again,
these findings are consistent with the results of the study by Gerlich, Browning, and Westermann (2010).

YouTube Usage
A modest level of enthusiasm was exhibited for the use of YouTube regardless of age and gender, which was also true for Facebook and smartphones. Contrary to the usage level preference of Facebook and smartphones, males 30 and under showed the highest level of enthusiasm.

IMPLICATIONS OF FINDINGS FOR THE USE OF NEW MEDIA FOR COMMUNICATION

The following are possible issues for consideration by business deans as they strive to enhance communication with students:
• Develop a formal written communication plan to implement the use of new media as communication tools.
• Secure the resources to implement and maintain an ever-green Facebook page, a YouTube channel, and a texting system.
• Alert students, faculty, and staff to any changes in communication strategies and tactics by the Dean's office.
• Provide orientation and training as new media communication technologies are introduced in colleges of business.
• Evaluate the effectiveness of the usage of the new media tools as a part of the continuous improvement process.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

This study was limited to one rural Midwestern university, so we were precluded from making generalizations to a broader population of college business students. A much larger population of business students across multiple universities could be sampled, which may provide results that could be generalized for more
colleges of business. Therefore, the findings could be used to further guide communication from business deans.

New studies should be conducted periodically because of the continuing emergence of new media. Additional quantitative and qualitative studies are needed to enhance the review of literature for the use of new media as a communication tool for colleges of business.

REFERENCES


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