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Dimensions of Social Media Utilization Among College Sport Fans

Galen Clavio¹ and Patrick Walsh¹

Abstract
As social media provide athletic departments and their constituents with an additional point of engagement with their fans, it is important to understand the social media audience. However, despite the growth of social media use among collegiate athletic departments, coaches, and teams, relatively little is known about the individuals who are utilizing various social media forums. This study was the first to attempt to understand why college sport fans engage in sport-focused social media use, with a theoretical grounding in uses and gratifications. Utilizing a survey of student fans from a large Division 1 institution, the results suggest that there is a relatively low level of social media participation among college sport fans in relation to official Twitter and Facebook feeds of the team, and a surprising prevalence of traditional media usage for informational purposes. Factor analysis reveals dimensions of gratification for social media use include content creation as an identifiable factor. These and other findings are discussed.

Keywords
college athletics, facebook, new media, social media, twitter

College sports’ fandom in the United States has achieved increasing levels of popularity in the past decade. A recent poll indicated that college football is the
nation’s third-most popular sport, trailing only the National Football League and Major League Baseball (MLB; Nolte, 2013). Perhaps more importantly from business and communication perspectives, college football already leads MLB in advertising revenue, with the 2011 season seeing the sport take in $975 million from advertisers, far ahead of the $784 million brought in by MLB (Nolte, 2013). Another important aspect of college sports’ fandom is the youthfulness of its demographics, as college football is the most popular sport among viewers aged 18 to 24 and among those with college degrees (McCarthy, 2013).

In an era of funding cuts and budgetary shortfalls in higher education, college sports have emerged as a rare moneymaker for many institutions of higher learning. The Big Ten Network, a television network co-owned by the Big Ten athletic conference’s 12-member schools and the Fox television network, brought in $242 million in revenue and $79.2 million in profit in the year 2011 alone (Durando, 2012). In 2012, the Big Ten distributed $284 million to its member teams, based on revenues from TV contracts and postseason revenue (Bennett, 2012).

Within college sports, social media hold great promise yet have struggled to find an identity and an acceptance in large parts of the industry. Rather than embracing social media, many college athletic departments have employed external monitoring companies to police their athletes’ posts (Medcalf, 2012). College coaches such as Boise State’s Chris Petersen (Southorn, 2012) and Florida State’s Jimbo Fisher (Ratke, 2012), among others, have banned their players from Twitter use, which has raised the ire of free speech advocates and pointed out the disconnect between managers and athletes in the area of social media (Paulson, 2012; Rovell, 2011). Academic research into social media policies among college athletic departments showed that these policies primarily focused on content restriction and labeling social media as a risk-laden enterprise, rather than establishing an educational or interactive context for athlete use (Sanderson, 2011).

While college athletic departments appear to be uncertain of how to use their athletes’ forays into social media, the fans of college athletics are using social media at a record pace. Dozens of college athletic programs have Twitter follower numbers exceeding 10,000, and over 30 programs have Facebook fans in excess of 100,000 each (SportsFanGraph, 2012). Some athletic departments have demonstrated a willingness to use social media for marketing and public relations purposes, using Facebook and Twitter for ticket giveaways, fan interaction, and general feedback (Tomko, 2011). These numbers represent a considerable shift in the audience marketplace, away from the traditional newspaper and television outlets used by consumers for decades to follow college sport. In fact, despite the overall popularity of college sports, there is evidence that the audience’s interaction with the product is changing. In college basketball, the digital access to games provided by new and social media has led to attendance issues at both regular season and tournament games (Wieberg, 2012). Athletic directors at major college sports programs have stated that long-term shifts in consumption patterns may lead to significant issues for that sport, unless adaptations are made to the digitized, speed-focused ways that...
young fans are consuming college basketball (Wieberg, 2012). Although the revenues generated by college sports are immense, they are generally predicated on television contracts that focus on the traditional mass consumption, noninteractive audience. Social media, with their focus on interactivity and user-customized environments, have proven difficult to monetize (Harris, 2012) but must be considered as a priority for the business side of college sports, due to the burgeoning audiences and demographic profiles found within.

As social media continue to grow, the need of sport entities in understanding the audiences present on social media becomes increasingly more important. While there have been some quality academic investigations of certain aspects of the social media audience (Clavio, 2011; Clavio & Kian, 2010; Hambrick, 2012; Hambrick, Simmons, Greenhalgh, & Greenwell, 2010; Sanderson, 2010; Williams & Chinn, 2010), there exists a need to examine the usage characteristics of college sport fans on social media to begin to understand why audiences choose to engage in sport-focused social media usage. Therefore, the purpose of this study is to examine what forms of traditional and nontraditional media a particular segment of college sport fans are utilizing, whether those fans prefer to utilize social media forums such as Twitter and Facebook for informational or interactive purposes, and whether there detectable are patterns or dimensions of general social media use among this group.

**Review of Literature**

The foundations of this study lie in uses and gratifications (UG) theory that first emerged in Katz, Blumler, and Gurevitch (1974). UG promotes a vision of a media audience, which is active, or making conscious choices about the media they consume, and goal directed in that activity. UG theory also encourages researchers to directly communicate with users in order to ascertain what media they are selecting, and which wants and needs those media choices are satisfying, as an explanation for why the media are being selected in the first place. The approach also assumes that functional alternatives, of media and non-media types, are available to the user. Ruggiero (2000) noted that UG is especially suited to examine three attributes of communication possessed by new media but not by traditional media. These attributes included interactivity, demassification, and asynchrony, all of which apply directly to social media and its user-generated content (UGC) structure. Ruggiero noted that the traditional media concepts of both *active* and *audience* would need to be reconsidered, given the base-level activity of all Internet users and the individualized variance in usage reasons between users. In other words, the actions of the active user of the newspaper and television age may not be sufficient to qualify as an active user in the Internet age, and the concept of audience may differ due to its niche orientation, rather than the mass audiences seen in the traditional media age of the 70s and 80s.

It is also important to consider the notion of Web 1.0 versus Web 2.0 technologies and their implications for what is termed *social media*. Kaplan and Haenlein (2010)
noted that social media has been constructed on the foundations of interactive Web 2.0 technologies, with the primary focus of the media being to promote creation and exchange of UGC between users. While UG found its origins in the study of traditional media, it is particularly suited for the study of social media, due to the nature of the media and the user experience.

**Twitter and Blogs**

Social media UG research has been a gradually developing area, and the nature of usage has grown and changed as more individual users join and more organizations and entities attempt to reach those individuals. In Clavio and Kian (2010), the authors examined the dimensions of gratification and demographics of the followers of a retired female professional athlete’s Twitter feed. The results of this study found three primary dimensions of gratification. Two of these dimensions were informational in nature, while the third focused on interaction, both with the athlete and with other fans of the athlete. However, these three factors only explained 46.9% of the encountered variance. The most salient individual elements of Twitter feed usage were focused on the user’s admiration of the athlete’s expertise, enjoyment at reading the athlete’s content, uniqueness of information being provided, and general fandom of the athlete.

Hambrick, Simmons, Greenhalgh, and Greenwell (2010) approached social media use from a content production perspective, examining the Twitter output of a series of professional athletes. Of the six categories discovered by the authors (interactivity, diversion, information sharing, content, promotional, and fanship), the most prevalent class was interactivity, which accounted for a third of the coded tweets.

Although not a sport social media investigation, Smith (2010) evaluated Twitter and interactivity in post–earthquake Haiti from a public relations perspective, finding that the medium promotes decentralized message sharing and user interaction instead of organization-centric dissemination. Chen (2011) investigated Twitter from a UG perspective and discovered that greater levels of exposure to the medium resulted in greater levels of gratification in the area of connection, irrespective of demographic variables. This connection dimension bears close resemblance to the concept of interactivity seen in other studies.

The notion of interactivity and information gathering as primary explanations of variance in new and social media communication extends to other studies as well, both inside and outside of sport-focused research. Kaye (2010), in an examination of political blog users, uncovered nine potential dimensions of gratification, with seven of the nine dimensions easily fitting within either interactivity or information gathering as a larger conceptual container. A recent case study on sport-focused blogs (Frederick, Clavio, Burch, & Zimmerman, 2012) examined UG of mixed martial arts’ (MMA) fans within an interactive online sphere. The study found six identifiable dimensions of gratification (evaluation, community, information gathering,
knowledge demonstration, argumentation, and diversion), which accounted for nearly 66% of the variance in the sample. User responses and the aforementioned dimensions indicated that MMA blog usage generally fell within one of the two categories, namely interactivity (i.e., evaluation, community, knowledge demonstration, argumentation, diversion) and information gathering.

Facebook and Other Social Media
Ancu and Cozma (2009), in applying UG to the accessing of political candidate profiles on the MySpace platform, found that the primary dimension of gratification for these users was social interaction, followed by information seeking and entertainment. Park, Kee, and Valenzuela (2009) utilized UG to examine Facebook group membership among college students and found dimensions relating to socialization, entertainment, status seeking, and information seeking. Although not a UG study, the results from Valenzuela, Arriagada, and Scherman (2012) bear close resemblance to gratification research in relation to a social medium, in this case Facebook. The authors queried young people in Chile on their protest behavior, political beliefs, and Facebook usage and found that those who logged on to Facebook multiple times daily scored significantly higher in protest behavior than did those who logged in less frequently. Furthermore, the study found that the two Facebook activities that independently predicted protest behavior were using the service for news (i.e., information) and socialization (i.e., interactivity).

The findings of Grieve, Indian, Witteveen, Tolan, and Marrington (2013) also have some bearing on the current study. Grieve et al. focused on the similarities and differences between face-to-face and Facebook interactions in terms of social connectedness. Their findings illustrated that while some differences did exist, Facebook users were able to achieve social connectedness in an online environment and were able to achieve desired emotional goals through that connectedness. These findings could help inform UG research into the types of gratifications sought by users as well as the qualities of interactivity that can be found in a social media environment.

In a study of collegiate social media audiences, Clavio (2011) examined demographic usage trends among fans of an NCAA Football Bowl Subdivision (FBS) school. The FBS stands as the highest level of competition among Division I athletic departments, with its members participating in the lucrative Bowl Championship Series, and requiring minimum stadium size and attendance numbers be met by its approximately 120 affiliate schools. The results of this study revealed a series of significant differences relating to age group and types of media usage, with younger users demonstrating considerably higher levels of social media usage than their older counterparts. Usage of traditional media such as newspapers was significantly higher among older users. Interestingly, the utilization of team websites and stand-alone message boards skewed toward older groups, pointing out a perceived distinction within the sport audience between Web 1.0 technologies and Web 2.0 technologies.
The publication of the Motivation scale for Sport Online Consumption (Seo & Green, 2008) provided sport communication researchers with a valid and reliable scale for measuring consumer interaction with online properties during the last decade. Without question, this scale remains an important part of Internet-based evaluation of Web 1.0 technologies. However, as a tool for social media-focused UG study, its usage is problematic, due to the nature of the questions and their focus on areas not present in some social media (i.e., economic motives on Twitter). Nevertheless, the leading elements of the scale were demonstrated as being *information, entertainment, and interpersonal communication*, which can be considered a form of interactivity.

One of the central tenets of UG research is the concept of functional alternatives to media, that is, the user is making a choice to complement, supplement, or replace one form of media with another. The question of social media in sport as a UG phenomenon must consider alternatives and is an area that has not received a great deal of attention thus far. While Clavio (2011) evaluated traditional media alongside social media, the study focused more on UG antecedents. Prior to the development of social media, Rubin (1993) considered the changing nature of UG in the face of technological advancement and added an assumption to the traditional UG model, which indicated that people would be more influential than media in mediated relationships. The current nature of social media, with individuals generating their own media alongside the traditional media content generation process, appears to have been foreshadowed by these comments.

**Rationale and Research Questions**

This study has two primary goals. First, by examining the two prevalent elements of UG in social media, namely interactivity and information gathering, the study hopes to provide a benchmark for future social media studies involving college athletics. Second, by expanding the evaluation of social media uses beyond the confines of Twitter and Facebook, it is hoped that this study will help to establish a solid footing upon which scales and theories may be developed to better examine social media usage among college sports’ fans.

Although the studies evaluated in the review of literature provide several starting points for scientific study, there does not appear to be enough of a critical mass of data or knowledge to effectively hypothesize about the nature of the social media audience in college sports. The studies that have preceded this one have either focused on nonsport audiences (e.g., Ancu & Cozma, 2009; Kaye, 2010), antecedents of UG (Clavio, 2011), or media which, while related to social media such as Facebook and Twitter, is of a different sport audience focus (e.g., Clavio & Kian, 2010; Frederick et al., 2012). Therefore, it was the judgment of the authors that research questions were the appropriate scientific step, in the hope that greater clarity in the evaluation of social media uses and dimensions of gratification will allow for future hypothesizing and theory building.
Given the prevalence of informational and interactive dimensions in previous UG studies (i.e., Clavio & Kian, 2010; Frederick et al., 2012; Kaye, 2010), this study focuses on investigating whether these dimensional functions of Twitter and Facebook within an athletic department’s feeds are identifiable. Although there have been other identified dimensions to media use, such as diversion and socialization, which have been commonly included in prior UG research, this study chose to focus on information and interactivity as the primary dimensions of use. Scale items in past research illustrate this point, such as Frederick et al. (2012), where the items included under the community and evaluation factors specifically describe interactions between the user and the others. Of the nine factors relating to blog uses and gratifications revealed by Kaye (2010), the five that explained the most variance dealt directly with informational or interactive motivations. While it is important to understand the substructures of information and interactivity, the collection of these concepts under larger and more inclusive labels may lead to greater variance explained in factor analysis.

Additionally, this study seeks to understand the uses of different types of social media in a collegiate sport fandom setting, so that future gratifications may be identified and subject to inquiry. This is an important and distinct focus of the study, because of the cross-platform nature of collegiate athletic departments’ social media efforts. Clavio (2011) examined some basic levels of social media usage among fans of collegiate sport, but the focus of that study was on social media as an information source to be consumed, not as a possible location for interactivity and content creation. It is not sufficient to simply focus the attention of this study on Twitter and Facebook, but by the same token, it is uncertain what exactly the college football audience is utilizing outside of these social media. Therefore, an examination of a variety of social media, along with accompanying exploratory factor analysis (EFA), is deemed necessary.

Based upon the review of literature included above, the following research questions were devised:

Research Question 1: Do student college sport fans possess social media accounts, and do they use these accounts to follow social media accounts belonging to their favorite team?

Research Question 2: What kinds of media, both traditional and social, are student college sport fans using for informational and/or interactive purposes relating to their favorite team?

Research Question 3: When following their team’s official feed on Twitter, do student college sport fans prefer to utilize it for informational or interactive purposes?

Research Question 4: When following their favorite team’s official page on Facebook, do student college sport fans prefer to utilize it for informational or interactive means?

Research Question 5: When utilizing new and social media in general, are there observable factors in the activities of student college sport fans?
Methodology

The data utilized in this study were gleaned from an Internet-based survey conducted in mid-fall of 2011 by the athletic department of a large Midwestern university with membership in the NCAA’s Division I FBS subdivision. The principal researcher worked with the athletic department to devise scientifically appropriate measures that would allow for the athletic department to garner actionable information for business and marketing purposes, while also allowing for effective and enlightening questions to be asked, which would provide demographics and usage data, and allow for theory-building efforts in UG. The survey was administered through e-mail solicitation to students who had previously purchased the combination of football and men’s basketball tickets for the 2011–2012 season. A web link on the main athletics webpage was also made available, but the survey could only be taken by students with verified season ticket accounts. This survey consisted of 61 questions and remained accessible for a period of 5 days. The researcher was provided access to the data, which had been stripped of any identifiable private information, for analysis.

The survey contained a question relating to respondent gender but no other demographic information. Respondents were also asked whether they possessed a personal Facebook account as well as a personal Twitter account. Respondents were also asked whether they followed the school’s official athletics Twitter feed and/or the school’s official athletics Facebook page.

While many UG studies have focused primarily on the “gratification” part of the UG theory, the “uses” part deserves considerable study within the realm of social media as well. Therefore, the factor analysis questions primarily focused on functional uses (e.g., being likely to watch an embedded YouTube video on a webpage, being likely to interact with fellow fans via Twitter), with the thought that these uses are themselves expressions of gratification seeking within a holistic, interconnected online space, which can be interpreted as the social media environment. This environment contains multiple spaces (i.e., Facebook, Twitter, YouTube) but forms a general social experience for the user. It is possible that these spaces compete between one another as loci of need satisfaction, in accordance with Katz et al.’s (1974) original framework for UG.

The scales utilized in the survey instrument were derived from prior investigation of social media users in sport (Clavio, 2011; Clavio & Kian, 2010; Frederick et al., 2012; Hambrick et al., 2010). There were three scales used: a 7-item scale focusing on uses of the official team Twitter feed, a 7-item scale focusing on uses of the official team Facebook feed, and a 15-item scale focusing on general new and social media usage. For each of these scales, Statistical Package for the Social Sciences (SPSS) reliability analysis was performed, and the scale was included for EFA if it exceeded an $\alpha$ reliability threshold of .70.

For the official Twitter feed, the respondents were asked to rate their feelings on why they used the feed, on a scale of 1 to 5, with 1 representing Strongly Disagree and 5 representing Strongly Agree, by responding to a list of various functions of
Twitter usage. The full list of questions for this scale can be found in Table 3. Reliability testing for this scale yielded an acceptable \( \alpha \) level of .749.

The respondents were also asked whether they “like” the official Facebook page of the athletic department and were then asked to rate the importance of various functions of Facebook usage as related to that page, using the same seven question types and the same 5-point scale referenced in the Twitter section above. The Facebook subscale was tested for reliability and achieved an acceptable \( \alpha \) level of .803.

The survey asked the respondents to indicate whether they utilized a variety of different types of sport media, both traditional and new. The respondents were specifically asked “Which of the following do you use to access information on your school’s athletics?” by selecting 1 for Yes and 2 for No. The choices included blogs, mobile phone applications, newspapers, the official team website, podcasts, recruiting-focused websites, sports talk radio, traditional media websites, and YouTube. For the purposes of analysis and clarity, these responses were recoded so that Yes was represented by a 1 and No was represented by a 0. The respondents were also asked to rate the overall quality of the school’s social media outlets’ content on a scale of 1 to 5, with 1 meaning Very Poor and 5 meaning Very Good.

Finally, the survey asked respondents to indicate, on a scale of 1 to 5, with 1 representing Very Unlikely and 5 representing Very Likely, the likelihood that they would engage in the utilization of a variety of new and social media functions while on a sport-related website or Internet application, including such items as Watch an embedded video on YouTube, Interact with athletes and/or coaches via Twitter, and Submit a picture to an online contest. While certain items within this list are clearly interactive in nature (i.e., Interact with athletes and/or coaches via Facebook), many simply represented functions of social media and/or Internet use, such as the questions relating to podcasts and video. Reliability analysis on this 15-item subscale achieved an \( \alpha \) of .921.

Data Analysis

Following data collection, analysis was conducted via the SPSS, Version 20. Frequencies and descriptive statistics were utilized in the initial examination of the data. Additionally, EFAs were utilized to evaluate the UG of various social media functions. Both the Twitter and the Facebook function question scales mentioned above were utilized as the basis for independent factor analyses on individual social media usage dimension and were derived from prior research (Frederick et al., 2012; Hambrick et al., 2010). For the EFA focusing on Twitter-related items, a total of 7 items were included, with each asking participants to respond to the statement “On a scale of 1–5, rate your feelings on the following reasons why you follow the school’s official Twitter feed.” Those items were to gather personal information about team athletes and/or coaches, to read stories about games, to find out about upcoming events, to participate in contests and giveaways, to interact with fans, to interact with team athletes and/or coaches, and to interact with the school’s athletic department as a...
whole. These questions were based on prior social media research (e.g., Clavio & Kian, 2010; Frederick et al., 2012) and were intended to capture an array of uses observed in the Twitter feed of the school. The EFA focusing on Facebook-related items used the exact same items but asked respondents to focus their feelings on following the school’s official Facebook page through the lens of those items. A third EFA was also performed on the questions relating to social media usage in the larger sport setting, where the sample’s perception of these items could be examined in a larger comparative context. The full list of these questions can be found in Table 2. For all EFAs included in this study, the analysis was only considered if the Kaiser-Meyer-Olkin Measure of Sampling Adequacy exceeded .70 and the Bartlett’s Test of Sphericity is significant at a level lower than .05 (Pett, Lackey, & Sullivan, 2003). Furthermore, factors within each analysis were kept only if they possessed at least three individual items that loaded at a level of .40 or greater (Tabachnick & Fidell, 1983), and if the resulting scale reliability $\alpha$ coefficient was at .70 or greater. Furthermore, in order to ensure factor strength, items were excluded from the two subsample EFAs proposed as a result of RQ3 and RQ4 if they did not load to at least a level of .50 on one dimension and no higher than a level of .30 on other dimensions. For the overall sample EFA proposed as a result of RQ5, the threshold was raised to a minimum loading of .60 on one dimension and no higher than a level of .40 on the other dimensions.

Sample

The survey resulted in an $N$ of 1,036. The gender breakdown of the sample saw 448 (43.2%) respondents identifying themselves as males, 588 (56.8%) self-identifying as females, and 0.1% choosing to not respond. A total of 1,015 (97.9%) respondents indicated that they had a Facebook account, while a total of 709 (68.4%) respondents indicated that they had a Twitter account. RQ1, RQ2, and RQ5 examined the entire sample. For RQ3, the subset of users that indicated Twitter account possession was examined, while for RQ4, the subset of users that indicated Facebook account possession was examined.

Results

RQ1 asked whether student college sport fans possessed social media accounts, and whether those accounts were being used to follow their favorite team’s social media accounts. As mentioned above, nearly 98% of all the users surveyed indicated that they had a Facebook account, while only 68.4% indicated that they possess a Twitter account. In examining the second part of this research question, only 151 (14.6%) total respondents indicated that they followed the official Twitter feed, while 375 (36.2%) said that they followed a nonofficial Twitter feed that was connected to the athletic department, and 273 (26.3%) said that they followed the official Facebook page.
RQ2 examined what types of media student college sport fans are utilizing for informational or interactive purposes. The survey asked respondents to identify, on a simple yes/no scale, whether they used particular types of media to access information on their favorite college team, including Web 1.0 sources (such as newspapers, traditional media websites, and recruiting sites) and Web 2.0 sources. The mean responses for each of these media types can be found in Table 1.

Respondents were also asked to gauge the likelihood of their utilizing a variety of social media applications when utilizing a sport-related website or Internet application. Table 2 lists the mean scores for each of the social media usage statements. The highest overall mean score was *Watch an embedded YouTube video* ($M = 3.57$, standard deviation [$SD$] = 1.3), followed by *Interact with a sport organization via Facebook* ($M = 2.89$, $SD = 1.3$) and *Interact with fellow fans via Facebook* ($M = 2.84$, $SD = 1.3$).

RQ3 asked whether student college sport fans prefer to utilize Twitter for informational purposes when following their favorite team/teams or player/players. One series of questions asked respondents to rate their feelings on why they followed the official athletic department Twitter feed. Of the 7 items listed, the item with the highest individual salience was *to find out about upcoming events* ($M = 4.38$, $SD = .8$), while the lowest was *to interact with fans* ($M = 2.93$, $SD = 1.2$). In terms of mean scores, the four questions dealing directly with interaction occupied the four lowest spots in the rank order, with the questions relating to information consumption occupying the top three.

A factor analysis was conducted on these items, and the results are presented in Table 3, along with the mean scores for each item. Two factors were retained, explaining 61.7% of the total variance. The first factor, labeled *interactivity*, explained 34.9% of the variance, while the second factor, *information*, explained 20.8%.

RQ4 aimed to determine whether young college sport fans prefer to utilize Facebook for informational or interactive purposes. A series of seven questions was
asked of respondents, with a focus on the athletic department’s official Facebook page. As with the two Twitter queries, the highest mean response was to find out about upcoming events ($M = 4.25$, $SD = .89$), and the interactive questions again occupied the bottom four spots in mean score rank order. A factor analysis was conducted, and the results are displayed in Table 4. As with the official Twitter feed factor analysis, this one resulted in two factors, which accounted for 64.7% of the total variance. The first, labeled interactivity, accounted for 46.4% of the variance and contained 4 items, while the second, information, accounted for 18.3% of the variance and contained 3 items.

Table 2. Social Media Usages.

<table>
<thead>
<tr>
<th>Activity</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch an embedded YouTube video on a webpage</td>
<td>3.57</td>
<td>1.3</td>
</tr>
<tr>
<td>Interact with a sport organization via Facebook</td>
<td>2.89</td>
<td>1.3</td>
</tr>
<tr>
<td>Interact with fellow fans via Facebook</td>
<td>2.84</td>
<td>1.3</td>
</tr>
<tr>
<td>Submit a picture you’ve taken as part of an online contest</td>
<td>2.83</td>
<td>1.4</td>
</tr>
<tr>
<td>Interact with an athlete or coach via Facebook</td>
<td>2.75</td>
<td>1.3</td>
</tr>
<tr>
<td>Watch a live uStream videocast</td>
<td>2.64</td>
<td>1.4</td>
</tr>
<tr>
<td>Interact with an athlete or coach via Twitter</td>
<td>2.63</td>
<td>1.4</td>
</tr>
<tr>
<td>Interact with a sport organization via Twitter</td>
<td>2.60</td>
<td>1.4</td>
</tr>
<tr>
<td>Interact with fellow fans via Twitter</td>
<td>2.55</td>
<td>1.4</td>
</tr>
<tr>
<td>Write a comment on a published story or video</td>
<td>2.50</td>
<td>1.3</td>
</tr>
<tr>
<td>Check into a sporting event using a program like FourSquare</td>
<td>2.26</td>
<td>1.3</td>
</tr>
<tr>
<td>Listen to a podcast on a webpage</td>
<td>2.19</td>
<td>1.2</td>
</tr>
<tr>
<td>Submit your own written content as part of an online contest</td>
<td>2.12</td>
<td>1.2</td>
</tr>
<tr>
<td>Submit audio or video you’ve created as part of an online contest</td>
<td>2.01</td>
<td>1.2</td>
</tr>
<tr>
<td>Download a podcast in iTunes or similar site</td>
<td>1.96</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Note. Derived from 5-point Likert-type scale anchored by 1 indicating very unlikely usage and 5 meaning very likely usage.

Table 3. Dimensions of Official Twitter Feed Usage.

<table>
<thead>
<tr>
<th>Usage of official Twitter feed</th>
<th>1</th>
<th>2</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interact with fans</td>
<td>.85</td>
<td>-.09</td>
<td>2.9 (1.2)</td>
</tr>
<tr>
<td>Interact with athletes/coaches</td>
<td>.83</td>
<td>.10</td>
<td>3.4 (1.1)</td>
</tr>
<tr>
<td>Interact with athletic department</td>
<td>.78</td>
<td>.24</td>
<td>3.6 (1.1)</td>
</tr>
<tr>
<td>Participate in contests</td>
<td>.58</td>
<td>.23</td>
<td>3.3 (1.2)</td>
</tr>
<tr>
<td>Read stories about games</td>
<td>-.03</td>
<td>.80</td>
<td>3.9 (1.0)</td>
</tr>
<tr>
<td>Find out about upcoming events</td>
<td>.12</td>
<td>.80</td>
<td>4.4 (0.8)</td>
</tr>
<tr>
<td>Gather personal info about athletes/coaches</td>
<td>.33</td>
<td>.67</td>
<td>3.8 (1.0)</td>
</tr>
</tbody>
</table>

Note. Factor 1 (eigenvalue = 2.87) explains 40.9% of total variance. Factor 2 (eigenvalue = 1.46) explains 20.8% of total variance. The bold figures in table indicate those items which successfully loaded onto the individual factors of the analysis.
RQ5 asked whether discernible factors or dimensions of usage of social media existed among young college sport fans. A factor analysis was also run on the user likelihood of users engaging in sport-related activities with the social media applications as listed in Table 2. An initial check of communalities led to 2 items, the YouTube and FourSquare items, being removed from the analysis. This left 13 total items for analysis; and from these items, four factors were identified, accounting for 72.9% of the observed variance. Factor one, labeled *content creation*, accounted for 46.2% of the variance and contained 4 items. Factor two, labeled *Twitter functionality*, accounted for 10.5% of the variance and contained 3 items. Factor three, labeled *Facebook functionality*, contained 3 items and accounted for 8.5% of the variance. The fourth factor, labeled *audio and video*, accounted for 7.8% of the variance and contained the remaining 3 items. The factor loadings and eigenvalues for these dimensions can be found in Table 5.

**Discussion**

The results from this study provide data relating to social media usage among a segment of college sport fans and allow for us to fill the picture in somewhat with regard to user dimensions of social media gratification. Analysis of the sample provided some unusual results, not the least of which was the finding that nearly 57% of the respondents self-identified as female. The ratio of females to males in this study appears much higher than that found in prior sport and new/social media analyses, which saw female self-identification range from 43% (Clavio & Kian, 2010) to 12.3% (Clavio, 2008) to 3.5% (Frederick et al., 2012). It is not certain whether this increase in female representation is due to the sport environment involved, a cultural change in sport and social media use, or some other factor. Interestingly, the percentage breakdown by gender closely matched the female to male ratio among the student body of the school examined. Despite this departure from past demographic findings, statistical analysis indicated that gender had little to no effect on the variables examined in this study.
There was a relative lack of participation in the official Twitter and Facebook accounts by the respondents, as examined in RQ1. While enough individuals indicated participation to make analysis possible, the findings do indicate that the ticket-buying public is not necessarily the social media public in the world of college athletics, at least among student fans. In an era where branding and marketing are paramount in the minds of many athletic departments, it would appear that, in this case at least, greater efforts need to be expended to draw the ticket-buying public into the social media sphere provided by the team. Although a little over one third of the total sample was following an independent athletics-related Twitter account, the lack of branding control in that scenario could lead to an inefficient expenditure of resources on the part of the athletic department. It is also worth noting that only 68% of the sample even possessed a Twitter account, a significantly smaller group than those with Facebook accounts.

RQ2 asked what kinds of media student college sport fans are using for informational and/or interactive purposes relating to their team. The data indicate that fans within this sample are primarily using traditional media and/or Web 1.0 technologies for informational purposes. This could present a problem for athletic departments hoping to use services such as YouTube and blogs for consistent distribution of news and information, as a great deal of audience cultivation may be needed in order to convince fans to use those services for an informative purpose. While it is possible that users may be accessing embedded video on the team website or other application, there are many college athletic programs that are actively marketing their own YouTube channels in an attempt to have users go there to consume video.

### Table 5. Dimensions of Social Media Usage.

<table>
<thead>
<tr>
<th>Social media usage</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit audio/video you’ve created as part of an online contest (M = 2.0)</td>
<td>.81</td>
<td>.19</td>
<td>.14</td>
<td>.23</td>
</tr>
<tr>
<td>Submit your own written content as part of an online contest (M = 2.12)</td>
<td>.79</td>
<td>.20</td>
<td>.09</td>
<td>.29</td>
</tr>
<tr>
<td>Submit a picture you’ve taken as part of an online contest (M = 2.83)</td>
<td>.69</td>
<td>.14</td>
<td>.37</td>
<td>.07</td>
</tr>
<tr>
<td>Write a comment on a published story or video (M = 2.50)</td>
<td>.61</td>
<td>.24</td>
<td>.27</td>
<td>.22</td>
</tr>
<tr>
<td>Interact with a sport organization via Twitter (M = 2.60)</td>
<td>.19</td>
<td>.86</td>
<td>.17</td>
<td>.18</td>
</tr>
<tr>
<td>Interact with an athlete or coach via Twitter (M = 2.63)</td>
<td>.24</td>
<td>.84</td>
<td>.24</td>
<td>.14</td>
</tr>
<tr>
<td>Interact with fellow fans via Twitter (M = 2.55)</td>
<td>.19</td>
<td>.81</td>
<td>.23</td>
<td>.13</td>
</tr>
<tr>
<td>Interact with fellow fans via Facebook (M = 2.55)</td>
<td>.23</td>
<td>.15</td>
<td>.79</td>
<td>.16</td>
</tr>
<tr>
<td>Interact with a sport organization via Facebook (M = 2.89)</td>
<td>.20</td>
<td>.21</td>
<td>.78</td>
<td>.21</td>
</tr>
<tr>
<td>Interact with an athlete or coach via Facebook (M = 2.75)</td>
<td>.18</td>
<td>.29</td>
<td>.75</td>
<td>.15</td>
</tr>
<tr>
<td>Listen to a podcast on a webpage (M = 2.19)</td>
<td>.19</td>
<td>.16</td>
<td>.20</td>
<td>.83</td>
</tr>
<tr>
<td>Download a podcast in iTunes or another podcatcher (M = 1.96)</td>
<td>.20</td>
<td>.21</td>
<td>.07</td>
<td>.82</td>
</tr>
<tr>
<td>Watch a live uStream videocast (M = 2.64)</td>
<td>.24</td>
<td>.06</td>
<td>.26</td>
<td>.69</td>
</tr>
</tbody>
</table>

Note. Factor 1 (eigenvalue = 6.0) explains 46.2% of total variance. Factor 2 (eigenvalue = 1.4) explains 10.5% of total variance. Factor 3 (eigenvalue = 1.1) explains 8.5% of total variance. Factor 4 (eigenvalue = 1.0) explains 7.8% of total variance. The bold figures in table indicate those items which successfully loaded onto the individual factors of the analysis.
The findings from this part of the study cast some doubt on the success of those efforts thus far.

In looking at social media uses, the highest level of usage likelihood was in watching embedded and/or live video. This is a surprising finding, given the bandwidth requirements of this action and the relatively low quality of Internet-enabled video. However, it does point toward a desire on the audience’s part for sensory-rich media and provides a potential opportunity for athletic departments to capitalize on the relatively low costs of producing video content in place of other types of social media. Also of interest is the rather noninteractive nature of YouTube-based videos, particularly those embedded in a sport website or application. While it is possible to engage in interactive behavior in this embedded environment through the writing of comments, the strong showing of Web 1.0 technologies in the responses may indicate that student college sport fans are using embedded video primarily as an information source, rather than as an interactive element.

Elsewhere in the results, the low mean scores relating to more involved types of content creation pose concerns for athletic departments that solicit UGC from fans. While student fans appear willing to submit pictures or comment on the existing content, they seem unwilling (or unable) to produce substantial content of their own. This would suggest that athletic departments who are soliciting UGC from fans should consider developing programs and promotional contests that encourage UGC and make it worth the fans’ efforts to create substantial content. This UGC provides for a rich level of engagement between the fan and the athletic department’s brand and should be something that athletic departments attempt to cultivate. It is also interesting to contrast the lack of content creation and interactivity among student fans with existing data and analysis on message board use. Message boards are an interactive medium, albeit a Web 1.0 one, which generate large amounts of web traffic and UGC through posted messages, and it is curious that users on sport-focused message boards appear to generate more UGC than the student fans in this sample on social media. It is worth noting that the demographics for message board users uncovered in prior studies (e.g., Clavio, 2008) skew considerably older than the student population examined here, and this age difference may have an effect on UGC production. Further research should be conducted into the perceived differences among users between message board-based interactivity and social media-based interactivity.

RQ3 examined the official Twitter feed’s uses. The two types of dimensions uncovered, interactivity and information, echoed those found in previous studies of social media (Ancu & Cozma, 2009; Clavio & Kian, 2010; Frederick et al., 2012; Kaye, 2010). Interactivity proved to explain more of the variance, while the items in the information dimension were more salient individually, as found in Clavio and Kian (2010). While the questions in this analysis were limited in number, it is important to see the delineation between information and interactivity motives is consistent within this sample. It is curious to note that of the 7 items within this scale, Twitter users identified fan interaction as the least salient. This is inconsistent with the findings from outside the world of sport social media, which have illustrated that
Twitter users are motivated by connections with those who share a common cause or interest (Smith, 2010). However, it is also worth noting that Smith’s (2010) analysis indicated that users utilized retweets and forwarded messages instead of crafting personal ones. While these actions are still interactive in nature, it is possible that the audience in the current study’s sample does not interpret them as such.

RQ4 investigated the uses surrounding the official Facebook page. The results were somewhat similar to those found in the official Twitter feed; however, the Gathering personal information about athletes/coaches item appears with the items that one would connect to interactivity, while the Participate in contests and giveaways item appears in the factor containing information-focused items. While the nature of the items still lend themselves to classifying factor one as interactivity and factor two as information, the results are not as clear-cut as those found in the EFA that focused on Twitter. It is possible that these results reflect the nature of Facebook as a medium, or at the very least, the way it is being used by this school’s athletic department, in contrast to how Twitter is being used. For instance, promotional activities on Facebook by the school during this time period focused primarily on announcing game-day contests, rather than inviting fans to participate directly through Facebook. Conversely, contests and giveaways promoted through the school’s Twitter feed invited direct interaction on the part of the user. It is possible that the perceived level of interaction inherent in the giveaway or promotion influences the user’s interpretation of whether it is an interactive event or simply an informative media item. A similar situation could exist with the Gathering personal information about athletes/coaches item, in that Twitter may focus on more observational elements of information gathering, through the following of those athletes’ or coaches’ feeds or through those individuals’ usage of the official Twitter feed, while Facebook’s more personable and visual layout may encourage users to experience this process in a more interactive manner.

What may be the most surprising finding from both RQ3 and RQ4 is the consistently high salience of information gathering items, combined with the lower salience of interactive items. This finding suggests that athletic departments should continue to provide the informational sources that their social media users are seeking, while at the same time providing more incentives (i.e., promotions, giveaways, exclusive chat opportunities with coaches, athletes, etc.) to encourage a higher level of interactivity.

RQ5 explored the general utilization of social media by student college sport fans. Four dimensions of social media usage were uncovered, explaining 72.9% of the variance. When asked about uses specific to interactivity and information gathering in relation to team-specific Twitter and Facebook feeds, respondents indicated the same type of split between those two dimension types as seen in prior literature. But when given the opportunity to identify their usage patterns in a generalized social media list, younger respondents chose to focus on the medium, rather than the function. In other words, rather than grouping their dimensions by “Interact with,” students chose to group by “Twitter” or “Facebook.”
From a practitioner standpoint, this might suggest that athletic departments need to vary their social media strategies depending on the medium being used. Respondents may view Twitter and Facebook as distinct mediums rather than viewing social media from a more holistic perspective. Therefore, when trying to reach students via Twitter or Facebook, the messaging, approach, and information provided may need to be presented in different fashions.

From a scholarly standpoint, it may be possible to utilize these findings to craft new UG studies of sport-focused social media, this time focusing on the gratifications sought, rather than the uses as representations of latent gratification. Certainly, there is one obvious gratification category that deserves expansion and exploration that being a content creation category. Unlike earlier, noninteractive media types as evaluated through prior UG studies, social media allows for users to seek the gratification of generating content and publishing it in the cloud, be it on blogs, Facebook, Instagram, Twitter, or any one of a number of different social media services. UG motivation statements such as “I use social media so that I can create written content which is read by others” and “I use social media to publish pictures that show me as a fan of my favorite team” could be very useful in analyzing UGC trends among sport social media users as well as the gratifications of those users. The clear presence of content creation as a separate factor warrants future evaluation and study.

The content of the Twitter functionality and Facebook functionality dimensions poses an interesting theoretical problem, because while it appears obvious from the responses found in this study that users perceive the two functions differently, it may be difficult coming up with appropriate motivation statements for the underlying concepts and actions in future UG studies without specifically naming Twitter and/or Facebook. It may be possible to create more granular statements of gratification seeking for media-rich sites (such as Facebook) versus media quickness sites (such as Twitter), but it is uncertain whether social media users will be able to discern the difference, in question format, between the two types of site. Alternatively, it is possible that usage of Twitter or Facebook (and any related future technology) is a gratification in and of itself, rather than a conduit toward a sought gratification.

From a practitioner’s standpoint, the continued popularity of the official website as a source of information is no doubt welcome, due to the ease of control of the website’s information and the lack of interactivity due to its Web 1.0 technology. This finding also supports the results discovered in Waters, Burke, Jackson, and Buning (2011) who found that NFL teams appeared to focus their endeavors on their individual websites instead of their Facebook pages. Additionally, as seen in Clavio (2011), younger fans do not appear to be interested in engaging sports talk radio or recruiting websites for information, but the lack of interest in blogs, YouTube, and podcasts for team information is surprising. It is possible that these entities have not entered into young fans’ minds as credible sources of news. Regardless, the finding that in all but two of the observed media types, student fans are more unlikely than likely to engage them for information access on their favorite team should receive future inquiry.
Conclusions
This study illustrates a series of interesting findings within a college sport team’s student social media audience. The study contributes to the academic body of literature by exploring important research questions relating to the social media audience, a rapidly growing segment of every college athletic department’s public. The study also adds to the knowledge base of the sport industry by exploring audience-focused questions in a systematic manner. Practitioners interested in understanding their social media audiences can utilize the findings from this study to provide greater interactive and informational processes to online fans.

Limitations
This study possesses some limitations. First, the surveys were only distributed to fans of one college athletic department and therefore cannot be generalized beyond that population. Surveys were only distributed to student season ticket holders, a group that does not necessarily represent the majority of fans for a college’s athletic program and only represents the younger end of the overall fan demographic. Furthermore, the study relies on respondents providing honest and accurate accountings of their own thoughts and feelings regarding their social media usage. The instrument also relies on a nonsocial media avenue (i.e., e-mail and web links) to reach its subjects, and this may allow some social media nonusers to respond.

Future Research
Future studies should build upon this investigation by broadening the scope of inquiry to include teams from multiple leagues and divisional affiliations, in order to effectively evaluate whether the findings in this study are consistent across a broader array of college sport fans. It is also recommended that nonstudent populations be evaluated, to see whether the dimensions of usage and gratification revealed in this study explain the same levels of variance and to see whether the adaptation of social media has increased in breadth and depth over earlier studies (i.e., Clavio, 2011). Furthermore, the concept of functional alternatives, both between social media and nonsocial media and within social media as a category, should be further examined. Additionally, the building blocks of audience analysis and UG data gleaned from the multiple factor analyses in this study will allow for confirmatory factor analysis, hypothesized studies into audience motives, and theory building in the realm of social media.

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References


