Sporting Facebook: A Content Analysis of NCAA Organizational Sport Pages and Big 12 Conference Athletic Department Pages

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Social-media Web sites provide a strategic means for college and university athletic departments to build and maintain a strong brand presence when cultivating relationships with Facebook users. The purpose of this study was to examine the use of social media as a brand-management tool in college athletics. Specifically, this study examined the use of Facebook in the NCAA (N = 10) and in the Big 12 Athletic Conference (N = 12) by content posted throughout the 2010–11 season. These Facebook pages were examined to determine how major college sport organizations were using communication tools, types of brand-management factors, and marketing coverage. The data revealed statistically significant differences in content posted by season, type of communication tools, and fan interaction. The results from this content analysis were used to conceptualize branding, marketing, and Facebook user behavior.

Keywords: social media, brand management, communication, social networking

The use of social media as a means to communicate and engage with others has grown significantly in the past 5 years. Social-media sites such as Twitter and Facebook have changed the way individuals interact and provide a central location for online social engagement. Given the high usage rates, social-networking sites also represent a unique and engaging communication tool that can be used by companies to disseminate unfiltered messages to mass audiences and specific target markets (Pegoraro, 2010). Global companies with strong brand identities, such as Coca-Cola, Starbucks, JP Morgan Chase, and Proctor and Gamble, have recognized the value of social media as both a communication tool and a marketing tool and have incorporated them as a key component in their respective marketing
and brand-management strategies (Morrissey, 2007). Similarly, sport organizations are realizing the benefits of social media and are seeking ways to most effectively use them as part of their overall marketing, communication, and brand-management strategies (Coyle, 2010).

Sport has long enjoyed a symbiotic relationship with the media, but much of that relationship was centered on mainstream-media coverage and sport entities’ ability to appropriately disseminate newsworthy communications (Hardin & McClung, 2002; Miloch & Pedersen, 2006; Pedersen, Laucella, Miloch, & Fielding, 2007; Schultz, Caskey, & Esherick, 2010; Wenner, 1998). Unlike traditional media, social media present unique and distinct advantages for sport entities because they are able to communicate unfiltered messages directly to consumers. Direct unfiltered Internet communication links consumers to sport products in an engaging and interactive manner and helps build fan identification (Pegoraro, 2010; Santomier, 2008). Sport entities are ideally positioned to use social media given existing fan bases and the ability to encourage consumer interactions with the sport product, with athletes, and with team personnel. Williams and Chinn (2010) illustrate the advantages of social media for sport entities, particularly in regard to fostering strong relationships with sport consumers, noting that “the potential value and benefits of using social media to meet relationship-marketing goals is significant” (p. 423). Given sport entities’ reliance on ticket and merchandise sales for revenue generation, social media present a competitive advantage in cultivating favorable relationships that encourages repeat consumption of the sport product (Williams & Chinn, 2010). Cooper (2009) indicated that “sport media has a major influence on the consumption habits of individuals interested in college athletics” (p. 18), and the ability to communicate direct and unfiltered messages via social media provides a significant and strategic means of establishing and maintaining a strong brand identity and for encouraging repeat consumption.

Scholars have long linked brand identity and brand management to enhanced loyalty among consumers and sports fans (Aaker, 1991; Berry, 1999; Gladden & Funk, 2001; Gladden & Milne, 1999; Gladden, Milne, & Sutton, 1998; Keller, 1998; Miloch, 2010; Ross, 2006; Shocker, Srivastava, & Ruckert, 1994; Walsh, Kim, & Ross, 2008). Loyal fan bases provide a consistent and predictable revenue stream for athletic departments (Bedbury, 2002; Boone, Kochunny, & Wilkins, 1995; Gladden & Funk, 2002; Godin, 2002; Kuo, Chang, & Chen, 2004; Madrigal, 1995; Shocker et al., 1994). Coyle (2010) indicates that sports teams must actively use social media to enhance brand management, encourage social interactions among fans, promote ticket sales, and cultivate a more favorable online experience. Social media provide a unique and strategic means for college and university athletic departments to cultivate relationships with fans and build and maintain a strong brand presence, and their use in this regard warrants examination. Thus, the purpose of this study was to examine the use of social media as a brand-management tool in college athletics. Specifically, this study examined the use of Facebook in the NCAA organizational pages (i.e., NCAA wrestling, NCAA volleyball, etc.) featured on the NCAA.org Web site and in the Big 12 Conference athletic department pages (i.e., Baylor University, Iowa State, Nebraska, etc.) featured on the Big12sports.com Web site. These Facebook pages were examined to determine how major collegiate sports organizations were using communication tools, types of brand-management factors, and marketing coverage.
Literature Review

Research inquiries focusing on social media in the context of sport communication and sport marketing are becoming more prevalent in the literature. Considering that the use of social media is a somewhat new phenomenon, particularly in regard to their role in the discipline and use in the industry, sport communication and marketing scholars, as well as industry professionals, have noted the need for expanded research on the topic (Brody et al., 2010; Clavio & Kian, 2010). To date, much of the research in this area has focused on athletes’ use of social media or online communication as a marketing tool (Clavio & Kian, 2010; Cooper, 2009; Coyle, 2010; Hambrick, Simmons, Greenhalgh, & Greenwell, 2010; Ioakimidis, 2010; Pegoraro, 2010; Sheiferheld, 2010; Williams & Chinn, 2010). This study focuses on the use of Facebook by the NCAA and college athletic departments specific to principles and theories of brand management.

Facebook

The use of online media tools and social media has grown tremendously in the past 5 years (Ioakimidis, 2010; Williams & Chinn, 2010). These interactive media represent a two-way communication tool used to engage fans in a new, unique way (Zhang, Sung, & Lee, 2010). Bulmer and DiMauro (2010) describe social media as a platform to discuss ideas, communicate experiences, and exchange knowledge. Social media represent an unfiltered direct communication link connecting consumers to brands through online identification and interaction with desired fans (Pegoraro, 2010; Santomier, 2008). The interactivity of consumer and product may be used to evaluate the needs and desires communicated through social media (Schoenstedt & Reau, 2010). Social media may best be defined as “the tools, platforms, and applications that enable consumers to connect, communicate, and collaborate with others. . . . They support user participation on a collective scale” (Williams & Chinn, 2010, p. 422). Social media allow users to create content and establish social connections with other users (Ioakimidis, 2010).

Facebook is one of the many social-media outlets enabling consumers to interact with brands as an extension of face-to-face interaction through an online media network (Kujath, 2011). The network content is specific to the user-generated content uploaded and shared daily on this platform (Schultz & Sheffer, 2010). Facebook features are categorized into items associated with uploading content, reviewing content uploaded by others in the network, and items related to responses to content.

Facebook is one of the most popular social-networking platforms, and as a social-media tool it can be used to enhance brand and image communication. In 2011, active Facebook users totaled 750 million worldwide, and in the United States approximately 30% of the population, or 225 million people, actively used the site (Facebook.com, 2011). A typical user spends over 55 minutes per day on Facebook and has an average of 130 friends in the network. Users interact by clicking “Like” on an average of nine pieces of content and by writing an average of 25 comments each month. In addition, a typical Facebook user will follow two new pages each month (Facebook.com, 2011). In 2008, Facebook released the Page feature for organizations, groups, and businesses to communicate with users. This feature allows organizations and businesses to customize their Facebook presence and to interact with users on the Internet (Facebook Pages Product Guide, 2009).
EA sports, Electronic Arts, is a sport video-game company that used exclusive Facebook pages for fans to vote on the next athlete to be featured on the cover of *NCAA Football 12* and *Madden NFL 12* (college and professional football video games; Klemko, 2011). This promotion resulted in 140,000 votes for *NCAA Football 12*, and *Madden NFL 12* received more than 12 million votes from fans. Facebook user interaction through the number of responses with content on Facebook is just one way to explain the uniqueness of online communities and social-networking sites. Furthermore, Facebook user interaction that does not result in a like, comment, or voting remains confidential information accessible only to page administrators. The page statistics measures fan engagement and interaction (*Facebook Pages Product Guide*, 2009) and enable administrators to investigate not only how users are interacting with content in real time but also the demographic characteristics of the most frequent users.

Content features include status updates and the upload of pictures, video, links, and notes. The site allows users to upload content directly to their Facebook page’s “wall” that will be broadcast to the Newsfeed. Fans may interact by posting directly on a page’s wall or by commenting or using the like button on the content item. These types of interactions allow sports entities to establish authentic relationships with target markets while also enhancing and reinforcing a strong brand presence.

Within the aforementioned parameters, the ongoing Facebook experience offers a media tool for fans to review and interact about content in real time. In addition, fans can access Facebook using a variety of devices other than a traditional computer, such as a handheld phone with Internet access.

**Social Media and Brand Management**

Major social-media sites (i.e., Facebook and Twitter) are commonly used by athletes, teams, fans, and other prominent organizations (Durrett, 2009). Social media, when included as an essential part of marketing mix, provide an effective communication tool to build relationships with sport consumers (Williams & Chinn, 2010). As social media are becoming an extension of online communication, the future uses of these formats will evolve from the current experiences and consumption preferences that are most convenient for fans (Kujath, 2011; Zimmerman, 2010). The influence of online media’s sports consumption seems to be a more powerful moderator of fan identification and self-concept than other traditional-media outlets (Phua, 2010). Unlike other online media sites, Facebook and Twitter represent a direct two-way communication venue linking fans to brand while simultaneously broadcasting these interactions to fans’ centralized network and the brand’s network (Pegoraro, 2010; Schoenstedt & Reau, 2010).

The social network is representative of individuals’ and companies’ cyberidentity. This enables communication based on this cyberidentity and interactions with others who share a similar cyberidentity (Kozinets, de Valck, Wojnicki, & Wilner, 2010). Cyberidentification refers to the way a person portrays opinions, personal information, and communication to represent their personal identity using Internet tools and Web sites (Talamo & Ligorio, 2001). Social media provide not only an outlet for interpersonal interaction but also a media platform to favorably promote and manage self-image through these interactions (Mehdizadeh, 2010). In addition, users’ psychological components provide an underlying link to motives, behaviors, and consequences of interaction (Baker & Moore, 2008; Hollenbaugh,
Network theory suggests that managing these consumer-engagement behaviors contributes to use and performance in these contexts (Parkhe, Wasserman, & Ralston, 2006). Social media ranked as one of the most frequently used media services and marketing tools by major professional leagues (Ioakimidis, 2010). As the popularity of social media increases, sports teams must develop specific strategies to use them to enhance fan loyalty and build brand equity (Aaker, 2010; Ioakimidis, 2010).

Both Pegoraro (2010) and Phua (2010) suggest that this form of communication helps build fan bases through identification and consumption behavior. The athlete–fan relationship through social media clearly reinforces the associated symbolic (i.e., group membership) and experimental (i.e., emotional and cognitive) benefits of sports consumption (Bauer, Stokburger-Sauer, & Exler, 2008). This interaction represents the interactive communication of social media and the potential loyalty-building dynamics of this tool. Sport brands may use this tool to produce and deliver information in an instantaneous manner without third-party interference (Pegoraro, 2010). Similar to other sport products, user-generated production and consumption are closely related, thus further reinforcing the benefits experienced through sport consumption (Richelieu & Boulaire, 2005).

Seo and Green (2008) demonstrate that fan engagement and expression using interactive media are a valuable component of online sport communication. Content evaluation provides a competitive advantage to adapt content and further manage communication in these formats. The use of communication technologies has changed the way fans access information about sports teams and athletes (Ioakimidis, 2007; Sanderson, 2009). This breakdown of traditional communication channels (i.e., TV, radio, newspapers) provides the increasing need to manage and monitor public perceptions via online media (Ioakimidis, 2007; Rappaport, 2010).

**Branding**

Businesses must stay relevant in the increasingly dynamic and complex market by “participating in the emerging market niches that represent future growth” (Aaker, 2004, p. 91). The investigation of consumers’ preferences, satisfaction, and purchase behavior guides brand management (Keller, 2003). Strong brand elements are identifiable, enduring, and meaningful to consumers but, most important, the features that are protected by the unique competitive advantage (Keller, 1999). For sports teams, this protection extends beyond some of these identifiable features (i.e., logo, phrases, colors, and names) and into unique experiences offered by sports teams (i.e., fan identification, social status of attending events; Fink, Parker, Brett, & Higgins, 2009; Parent & Seguin, 2008). Furthermore, online brand-building strategies should communicate what the brand is and what it is not. Online brand activity influences the way fans interact with and perceive the brand (Muntinga, Morreman, & Smit, 2011). Online brand management must carefully promote brand-building qualities while also targeting consumers’ preferences (McGlone & Martin, 2006; Stonehouse & Minocha, 2008).

**Brand Awareness and Associations.** Brand associations have been investigated in several sport domains (Ross, Bang, & Lee, 2007; Ross, James, & Vargas, 2006). Gladden and Funk (2002) describe brand-association factors as contributing to creating brand equity. Ross, Russell, and Bang (2008) link the factors of brand
association and awareness to measuring the brand equity of a team. Segmentation based on brand associations provides marketers the competitive advantage to strategically adapt marketing campaigns for these groups (Ross, 2007). Segmentation strategies provide marketers with valuable descriptive information related to the characteristics and behaviors specific to consumer groups, thus increasing the brand’s competitive advantage to deliver desired products and services relative to consumer behavior. Marketers must develop products and services within the brand that maximize the potential types of consumers while differentiating the brand from other related experiences (Bowden, 2009).

**Brand Attributes.** The product- and non-product-related attributes, benefits of consumption, and attitudes toward consumption contribute to type of brand associations (Kaynak, Salmon, & Tatoglu, 2008). Intangible qualities such as social status or identification create brand-specific attributes and differentiation (Friedmann, 1986). This competitive advantage is harder to duplicate and unique to the given brand, thus very valuable (Miloch, 2010).

The promotion and evaluation of various types of motives to consume sports reveal many benefits for sport marketers (Ross, Russell, & Bang, 2008). Bauer et al. (2008) demonstrated that non-product-related attributes such as logo, stadium, and tradition yielded stronger brand-attitude and behavioral-loyalty outcomes than product-related attributes (i.e., success, players, management). Unique to the sport industry is the idea of fan group identity (Foster & Hyatt, 2008). This represents a group of people collectively linked to the sport entity through their participation and consumption (Fink et al., 2009). These customers’ satisfaction builds consumer retention and maximizes revenue generation through relationship marketing (Madrigal, 1995; McDaniel & Moore, 2005). Furthermore, the management of brand in sports connects consumer to expectations and identities related to consumption preferences (e.g., escape, eustress, entertainment; Wann, Grieve, Zapalac, & Pease, 2008). The intangible features are associated with vicarious achievement, nostalgia for a team or player, performance of a star player, fan “escape,” team success, and peer-group acceptance (Funk & James, 2006). The tangible and intangible features provide many opportunities for sports consumption through media, TV, video gaming, and the Internet (Oates, 2009). These opportunities increase brand awareness and strengthen brand associations through repeated and enjoyable experiences (Kim & Ross, 2006).

**Brand Loyalty.** Brand awareness and association foster loyal consumers with identifiable preferences in behaviors and attitudes (Ross, 2007). Loyalty is further described in components of attitude and behavior (Kaynak et al., 2008). Behavior is generally described as a consumer’s direct purchase loyalty, whereas attitude is more subjective and indirect (Pritchard & Funk, 2010). Although the attitude toward a particular team may not generate direct revenue, Kaynak et al. note that consumers’ enduring attitude toward a team contributes to social aspects of interpersonal communication and identification with team as indicators of loyalty. Past game attendance and level of commitment to a team reveal a strong connection between attitude and ticket-purchasing behavior (Funk, Filo, Beaton, & Pritchard, 2009). Managing long-term relationships with consumers and cultivating new relationships is a constant process of engaging customers (Bowden, 2009). Sport provides many opportunities for brand extensions and strategic leveraging of brand image.
Role of Social Media in Brand Management

Social media, as communication tools, have potential and relative risk associated with their use. The ability to directly communicate with consumers alters perceptions about the given product (Kwak, Kim, & Zimmerman, 2010; Pritchard & Funk, 2010; Richelieu & Pons, 2006). Agenda setting and framing in the media shape public perceptions by increasing exposure through generating content and displaying information in a favorable way (McCombs, 2005; Zaharopoulos, 2007). Like any other media source, social media can be used as a communication tool to develop brand awareness, image, and associations (Mickle, 2009). Social-media communication should be one of the many facets of a company’s brand building. Sports teams are encouraged to not only adapt a platform to communicate a favorable perception but also use resources to cultivate a communication approach thorough agenda-building strategies (Clavio & Miloch, 2009). Strategic communication management should increase both favorable media coverage and public perception. Monitoring and understanding consumers’ online brand-related activities provide a way to effectively anticipate and manage brand-related social-media consequences (Muntinga et al., 2011). The model of online sport communication (MOSC) specifically links the management of content to consumers’ online experience and behavior (Pedersen, Miloch, & Laucella, 2007). The MOSC outlines strategic functions and management features of online content as content, design, performance, and commerce as they relate to any sport-related Web page (Pedersen, Miloch, & Laucella, 2007). Specific to the use of Facebook, the management of these factors relates to the frequency of uploading content items, the variation in type of communication media used, and the fan interaction with these items throughout the season. Furthermore, the Motivation Scale for Sport Online Consumption identified fan expression as a new construct evolving from two-way communication features (Seo & Green, 2008).

The cultivation of brand management through new media is not a new idea to sport marketers. The evolution of communication strategies through changes in technology has resulted in increased brand equity for a variety of sport organizations. Fortunato (2008) describes how the strategic agenda setting of the NFL’s television programming schedule contributes to the continual increase in TV viewership. New media provide many avenues for activating sponsorship during live sporting events, such as text messaging, phone applications, and word-of-mouth promotions through mobile devices (Perey, 2008). Thus, the management of these communication and media components directly influences the way fans interact with brands.

Electronic word-of-mouth communication is one of many features changing sport marketing strategies; it is a form of communication that is quick and used by more people than ever before (Coyle, 2010; Kozinets et al., 2010). Marketers must shift away from using social media as an unfocused tool to using them as a strategic brand platform to illustrate brand attributes. Wright, Khanfar, Harrington, and Kizer (2010) argue that effective social-media use must not appear as an advertisement to the customer but rather appear as an attempt to build a relationship and establish trust.

More sophisticated methods are being developed to analyze fans’ involvement with social media. The segmentation of users in new-media sport communication has resulted in the development of strategic brand-building approaches (Kim &
Ross, 2006; Ross, 2007) and strategic evaluation of brand-communication effectiveness (Frederick & Patil, 2010; Walsh et al., 2008). Keller (2009) outlines the critical nature of identifying potential opportunities for brand management, proper activation of the features, and the growth associated with brand extensions. Relevant to the sports industry, Hambrick et al. (2010) discussed the need for marketers to develop adequate consumer research and training before using this feature as a marketing or communication tool.

Management of social-media sites should be grounded in both consumer and business motives for interaction in this media context. The media context may evolve over time, so brand management in these formats should reflect the most current and effective communication strategies. Both communication and marketing strategies must connect the intentions of these captive audiences to brand initiatives (Casteley, Mottart, & Rutten, 2009). Social media may provide sport entities with a competitive edge by providing a direct communication link to the identified fans, thus cultivating a specific brand image.

**Facebook and College Athletics**

As Facebook provides unique features to express fan involvement, this user-generated content not only represents a platform for other identified fans to interact with the brand and each other but also creates an environment in a social context (Schoenstetd & Reau, 2010). Similarly, fan identification with teams and associated outcomes of sport consumption are thoroughly documented (Donavan, Carlson, & Zimmerman, 2005; Friedmann, 1986; Pritchard & Funk, 2010). Parasocial identification explores identification factors as they relate to new media and fan behavior (Kassing & Sanderson, 2010; Sanderson, 2009). Kassing and Sanderson illustrate how social media offer considerable shifts in the interaction and consumption of sport. These identification factors are commonly associated with sport consumption as it relates to fan loyalty behaviors (Fink et al., 2009).

These fan-communication features have most recently evolved into the current-day social-media Web sites as one of the top approaches to promote fan communication (Ioakimidis, 2010). Athletes, teams, and fans are communicating with each other using major social-media Web sites in a unique way not offered by other traditional sport communication mediums (Pegoraro, 2010). As the expansion of communication platforms continues, sports teams must develop more sophisticated relationship-centered marketing strategies and brand objectives for these online environments (Dittmore, Stoldt, & Greenwell, 2008; Raynaud & Bolos, 2008). As the interaction continues, strategic communication through this powerful medium has become a valuable concept in sport brand management.

The evolving nature of the industry offers a unique and challenging opportunity to build lasting impressions and relationships through sport marketing (Gladden, Irwin, & Sutton, 2001). Sport brands, over time and with proper management, will endure the evolving nature of the industry (i.e., globalization), growing clutter of the marketplace (i.e., available products and services), and changing technology (i.e., media communication tools; Aaker & Keller, 1990; Richelieu & Desbordes, 2009). Thus, the need to develop, manage, and innovate brands in the sport industry is apparent (Aaker, 2007).
Research Questions

Based on the results of the previous research noted herein, we developed three research questions for the study:

**RQ1**: What type of communication tools (e.g., status update, video, link) are most frequently used on Facebook?

**RQ2**: How is Facebook used to raise brand awareness and manage brand perceptions?

**RQ2a**: How frequently are product and nonproduct items used?

**RQ2b**: How are brand associations used to raise brand awareness and manage brand perceptions?

**RQ2c**: What types of marketing promotions are being used on Facebook?

**RQ3**: How are Facebook users interacting (e.g., likes and comments) with content on Facebook?

Methodology

The current research involved a content analysis of the branding, marketing, and management strategies provided on NCAA organizational Facebook pages (N = 10) and NCAA Big 12 athletic department Facebook pages (N = 12). The NCAA organization pages were selected because they are the official Facebook pages managed by NCAA on the official NCAA.org Web site and represent all levels of NCAA sport divisions. The Big 12 athletic department individual Facebook pages were used as a comparative conference—the Big 12 represents the midpoint for total revenue earnings of Division I schools (Dosh, 2011). Only the Facebook pages that were linked to the official NCAA.org or Big12sports.com page were included in the study.

The Facebook pages were accessed by links from the official Web pages to the individual sport of the NCAA or the official Web page of each team of the Big 12. Content analysis has been previously documented as an appropriate method to examine sport media coverage (Cooper, Eagleman & Laucella, 2009; Cooper & Pierce, 2011; Maxwell, 2009), brand strategy (Clavio, Kraft & Pedersen, 2009), and social media relative to online brand communication (Hambrick, et al., 2010; Zhang et al., 2010).

The respective Facebook pages were perused for one constructed week from each of the spring, summer, fall, and winter sport seasons. Thus, data from 28 days were collected from each of the 22 Facebook pages. The data were collected from the spring, summer, and fall 2010 and winter 2011 semesters.

Data Collection

The data-collection process involved taking a screen shot of the content items from the respective pages, printing the items, and assigning an item number to each. The items were then randomly ordered by team name. Content items were reviewed for
emerging categories and themes until theoretical saturation was reached (Lindolf & Taylor, 2002). The codebook and definitions were developed based on the emerging and theoretically supported categories as noted in Table 1. Major themes included communication tools, sport, brand attributes, brand associations, marketing strategy, information coverage, and type of fan interactions (see Table 1 for definitions). Categories that did not provide sufficient instances to develop a mutually exclusive category were labeled other, and when a combination of mutually exclusive items was presented together this was labeled combination.

Before the data-coding process, the researcher conducted training sessions to ensure that the coding procedures and measures were familiar to the two coders. After the training sessions, interrater reliability was evaluated on approximately 10% of data items \((n = 96)\) with representation from both groups analyzed (Neuendorf, 2002). A subsample of the data is used to not only evaluate the coders’ accuracy and reliability but also identify ambiguous categories or disagreements between coders (Riffe, Lacy, & Fico, 2005). Categories that did not meet reliability on the first interrater reliability trial were adapted. The final interrater reliability trial met the criteria of 80% percent agreement and .70 kappa for mutually exclusive items (Frey, Botan & Kreps, 2000). Thus, the ranges of .84–1 kappa and 85–100% agreement were both acceptable.

Because of the nature of content on Facebook and the theories analyzed, some categories elicited multiple brand and marketing strategies simultaneously and were not mutually exclusive. For example, a single content post could include multiple brand associations and marketing strategies. According to Zhang et al. (2010), multiple categories may be used to evaluate marketing and brand strategies on Facebook pages. An overall kappa of .60 was reported for latent variables with multiple categories such as brand associations and marketing strategy; this

<table>
<thead>
<tr>
<th>Table 1</th>
<th>List of Categories and Variables</th>
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<tbody>
<tr>
<td><strong>Category</strong></td>
<td><strong>Variables</strong></td>
</tr>
<tr>
<td>Form of communication</td>
<td>Status update, picture, video, link, notes, other.</td>
</tr>
<tr>
<td>Brand attributes (based on Bauer et al., 2008; Kaynak et al., 2008)</td>
<td>Product: success, star player, head coach, team (members), and team performance (team play) as product-related attributes. Nonproduct: management, logo, club colors, stadium, club history and tradition, club culture and values, fans, sponsor or owner, location of team. Combination: both product and nonproduct factors. None: no identifiable brand attributes.</td>
</tr>
<tr>
<td>Brand-association factors (based on Ross et al., 2008)</td>
<td>Brand mark, rivalry, concessions, stadium, social interaction, commitment, team history, organizational attributes, nonplayer personnel, team characteristics, none, other.</td>
</tr>
<tr>
<td>Marketing strategy</td>
<td>Ticket sales, merchandise, cobranding, sponsorship, event coverage, individual coverage, team coverage, in-game coverage, crisis management, none, other.</td>
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met the standard of .40–.75 for fair to good agreement (Banerjee, Capozzoli, McSweeney, & Sinha, 1999; Neuendorf, 2002). The interrater reliability of the brand-association and marketing-strategy categories provided initial evidence to include latent categories for a context such as Facebook coverage. Neuendorf explained that latent variables are expected to receive lower reliability scores because of the interpretation and nature of the content. Given the purpose of examining Facebook content, it was appropriate to evaluate the frequencies and percentages of the different types of use.

Data Analysis
The data analysis was conducted with SPSS version 19 using chi-square analysis, one-way ANOVA, and descriptive statistical analysis. Frequencies and percentages were reported for all categories. A chi-square analysis examined the amount of coverage posted by time of season and brand attributes. In addition, fan interaction was analyzed according to one-way ANOVA for season of coverage.

The groups of college athletics Facebook pages we examined represented two groups with different purposes. The NCAA as an organization manages the pages for multiple schools for one respective sport, and the Big 12 pages are managed by different organizations and represent individual pages for multiple teams. Because these two groups function independently, the coverage was examined over the same time period to reveal a comparative and descriptive analysis of Facebook management techniques. However, the substantial differences in the total number of posts between groups were apparent, and the data sets are reported separately as a within-group analysis only. Both the NCAA organizational pages (N = 194) and the Big 12 athletic department pages (N = 706) yielded substantial data.

Results

Descriptive Statistics
For the NCAA pages (N = 194), a chi-square test revealed that the number of Facebook posts differed significantly by time of season, \( \chi^2(1, N = 194) = 12.23, p = .007 \), in the spring (34%), summer (27.3%), fall (17.5%), and winter (21.1%). The expected value was 48 posts per season.

For the Big 12 Pages, a chi-square test revealed that the number of posts also differed significantly by time of season, \( \chi^2(1, N = 706) = 127.9, p < .001 \), in the spring (15.4%), summer (16%), fall (41.6%), and winter (26.9%). The expected value was 176 posts per season.

RQ1: What Type of Communication Is Most Frequently Used on Facebook?
A large proportion of the content was uploaded with the link and status Facebook communication tools (see Table 2). However, the Big 12 athletic departments uploaded a proportionally larger amount of pictures and status updates than the NCAA. Video, notes, and other communication tools were not frequently used.
RQ2: How Is Facebook Used to Raise Brand Awareness and Manage Brand Perceptions?

RQ2a: Product- and Non-Product-Related Items. The brand attributes included cases that exclusively qualified for either product or nonproduct category descriptions as related to current branding theories in sport. For the chi-square analysis, the following expected values were used: 50% product- and 50% non-product-related attributes.

For the NCAA pages, a chi-square examination revealed that the 68.8% coverage rate provided to product-related attributes was significantly higher, \( F(1, 154) = 4.593, p < .001 \), than the 31.2% coverage rate provided to non-product-related attributes. An independent-samples Mann–Whitney \( U \) test evaluated the fan interaction with brand attributes of product- or non-product-related attributes. Likes for product-related content \( (n = 106, M = 83) \) were significantly higher, \( U(n = 154) = -2.305, p = .021 \), than for non-product-related content \( (n = 48, M = 65) \). However, the comments were not significantly different \( (p = .059) \) between product-related content \( (n = 106, M = 82) \) and non-product-related content \( (n = 48, M = 67.55) \).

For the Big 12 Pages, a chi-square examination revealed that the 73.3% coverage rate provided to product-related attributes was significantly higher than the 26.7% coverage rate provided to non-product-related attributes. An independent-samples Mann–Whitney \( U \) test evaluated the fan interaction with brand attributes of product- or non-product-related attributes. Likes for product-related content \( (n = 390, M = 267) \) were not significantly higher \( (U = -0.069, p = .945) \) than for non-product-related content \( (n = 142, M = 265) \). In addition, the comments were not significantly different \( (U = -0.566, p = .572) \) between product-related content \( (n = 309, M = 268) \) and non-product-related content \( (n = 142, M = 260) \).

RQ2b: Types of Brand Associations. The top seven brand associations used in the content are reported in Table 3. Content items were coded according the multiple categories of brand association. The categories listed in Table 3 represent data that are not mutually exclusive; one content item could potentially have all 11 brand-association factors. The frequency and percentage represent the number of times these associations occurred throughout the content.
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The NCAA organizational pages used the following brand associations most frequently: team success 52.1%, socialization 38.7%, rivalry 36.1%, organizational attributes 27.3%, and commitment 4.2%. The Big 12 athletic department pages used the following brand associations most frequently: rivalry 39%, brand mark 38%, team success 34%, stadium community 21%, and socialization 19%.

RQ2c: Types of Marketing Promotions. General information (i.e., event, team, or individual coverage) was the most frequently used category for the NCAA organizational pages (79%) and Big 12 pages (90%). Ticket sales for the NCAA organizational pages (12.3%) were similar to those of Big 12 athletic department pages (11%). Sponsorship revealed slightly higher coverage in the NCAA organizational pages (8.1%) than in the Big 12 athletic department pages (4.7%).

RQ3: How Are Facebook Users Interacting With Content on Facebook?

The average number of fans for the NCAA pages ($M = 46,073$, $SD = 31,200$) was generally lower than that of the Big 12 pages ($M = 126,426$, $SD = 166,785$; see Table 4). An independent-samples $t$ test revealed that the fan interaction was significantly different in both likes, $F(1, 967) = 3.983$, $p < .001$, and comments, $F(1, 967) = 2.659$, $p < .001$, between groups. Thus, Facebook user interaction was described within each group and with a frequency distribution in Table 5.

### Table 3  Top Brand Associations

<table>
<thead>
<tr>
<th>Brand-association category</th>
<th>NCAA ($N = 194$)</th>
<th>Big 12 ($N = 706$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team success: winning performance of the team, team being successful, high-quality players</td>
<td>52.1%</td>
<td>33.7%</td>
</tr>
<tr>
<td>Rivalry: any two teams</td>
<td>36.1%</td>
<td>39.1%</td>
</tr>
<tr>
<td>Socialization: online or face to face, discussion with fans or questions, pictures of fans or group</td>
<td>38.7%</td>
<td>18.7%</td>
</tr>
<tr>
<td>Brand mark: image has logo or recognizable image</td>
<td>10.8%</td>
<td>37.3%</td>
</tr>
<tr>
<td>Stadium: arena, coliseum, stadium, field, or any mention of the facility</td>
<td>5.7%</td>
<td>20.7%</td>
</tr>
<tr>
<td>Commitment: support, loyalty, commitment showing support, thanking fans</td>
<td>21.1%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Organizational attributes: gives to community, charity, goodwill, positive characteristics</td>
<td>27.3%</td>
<td>5.1%</td>
</tr>
<tr>
<td>None: no brand associations identified</td>
<td>2.1%</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

*Note. Brand associations were adapted from the spectator-based brand-equity model (Ross et al., 2008).*
### Table 4 Number of Facebook Users

<table>
<thead>
<tr>
<th>Facebook page</th>
<th>Facebook users</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCAA pages</td>
<td></td>
</tr>
<tr>
<td>football</td>
<td>118,524</td>
</tr>
<tr>
<td>men’s hockey</td>
<td>33,242</td>
</tr>
<tr>
<td>softball</td>
<td>35,899</td>
</tr>
<tr>
<td>women’s basketball</td>
<td>18,755</td>
</tr>
<tr>
<td>men’s basketball</td>
<td>48,053</td>
</tr>
<tr>
<td>baseball</td>
<td>48,053</td>
</tr>
<tr>
<td>lacrosse</td>
<td>47,640</td>
</tr>
<tr>
<td>women’s volleyball</td>
<td>31,748</td>
</tr>
<tr>
<td>wrestling</td>
<td>128,243</td>
</tr>
<tr>
<td>NCAA</td>
<td>50,572</td>
</tr>
<tr>
<td>Big 12 pages</td>
<td></td>
</tr>
<tr>
<td>Baylor University</td>
<td>16,497</td>
</tr>
<tr>
<td>Colorado</td>
<td>5,318</td>
</tr>
<tr>
<td>Iowa State</td>
<td>42,608</td>
</tr>
<tr>
<td>University of Kansas</td>
<td>71,341</td>
</tr>
<tr>
<td>Kansas State</td>
<td>54,717</td>
</tr>
<tr>
<td>Nebraska</td>
<td>162,591</td>
</tr>
<tr>
<td>University of Missouri</td>
<td>97,858</td>
</tr>
<tr>
<td>University of Oklahoma</td>
<td>257,748</td>
</tr>
<tr>
<td>Oklahoma state</td>
<td>47,358</td>
</tr>
<tr>
<td>University of Texas</td>
<td>608,007</td>
</tr>
<tr>
<td>Texas A&amp;M</td>
<td>104,077</td>
</tr>
<tr>
<td>Texas Tech</td>
<td>48,994</td>
</tr>
</tbody>
</table>

### Table 5 Facebook User Interaction With Content on Facebook

<table>
<thead>
<tr>
<th></th>
<th>Low (31–38%)</th>
<th>Moderate (25–36%)</th>
<th>High (32–34%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Likes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCAA</td>
<td>0–4</td>
<td>5–12</td>
<td>13–131</td>
</tr>
<tr>
<td>Big 12</td>
<td>0–10</td>
<td>11–43</td>
<td>44–4,665</td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCAA</td>
<td>0–1</td>
<td>2–7</td>
<td>8–124</td>
</tr>
<tr>
<td>Big 12</td>
<td>0–1</td>
<td>2–9</td>
<td>10–509</td>
</tr>
</tbody>
</table>
Likes and comments were described using a distribution of low (31–38%), moderate (25–36%), and high (32–34%) frequency. The frequency distribution revealed that the number of likes received more interactions than the number of comments for each organization.

A one-way ANOVA revealed that Facebook user interaction was not significantly different in likes, $F(3, 193) = 0.826, p = .481$, or comments, $F(3, 193) = 0.048, p = .986$, across seasons for the NCAA organizational pages. Similarly, a one-way ANOVA revealed that Facebook user interaction was not significantly different in likes, $F(3, 705) = 1.95, p = .119$, or comments, $F(3, 705) = 1.788, p = .148$, across seasons for the Big 12 pages.

**Discussion**

The management techniques revealed statistically significant findings in coverage of brand attributes, communication tools, and marketing coverage. The findings in this study were similar to those of previous research focusing on brand attributes in media contexts (Kaynak et al., 2008) and theories of online coverage (Pedersen, Miloch, & Fielding, 2007). However, aspects of social-media content management are largely undocumented. Schultz and Sheffer (2010) noted that the perception of social-media management was not congruent when they analyzed actual social-media management techniques. Thus, the actual social-media content was analyzed to examine management techniques. In the following sections, an evaluation of each research question provides an interpretation of the data as they relate to current practical and theoretical applications.

**RQ1: Communication Types**

The type of communication used determines the way the information is viewed and can influence the way the Facebook users interact. The MOSC suggests various features and management techniques that contribute to online consumption (Pedersen, Miloch, & Fielding, 2007). Seo and Green (2008) noted many specific consumer motives that mediate the online sport experience. As more fans are consuming sports online, relationship management is an important aspect of the sport industry (Foster & Hyatt, 2008). The type of communication tools used shapes the way Facebook users can view information and potentially influences the type of their interactions with content. Both populations are using Facebook features to promote linked sources to Web sites outside of Facebook. Links are used more than any other type of communication; this tool primarily communicates an outside Web link to consumers while they are experiencing Facebook content. This management behavior is particularly important because it reveals that Facebook users are encouraged to navigate away from the Facebook page to interact with external Web-site content rather than interacting with the Facebook content.

The Facebook sport experience is shaped by not only the communication tools and the management of these tools but also the content expressed in these formats (Foster & Hyatt, 2008; Seo & Green, 2008). According to the MOSC, the functionality of online communication tools influences the way consumers may potentially interact. As status updates and links were the most frequent types of communication tools used, the lack of variety of communication tools may limit
the types of potential Facebook user interactions and types of content that can be featured in these formats. These results indicate that the functionality of the communication tools was underused. Pictures and video could potentially generate fan involvement and interaction in a way that is uniquely different than other communication tools (Mehdizadeh, 2010).

For example, the Big 12 athletic departments’ Facebook pages used photos frequently as complements to text about a topic. This indicates that brand associations may also be expressed abstractly through photo rather than through written text. Photos have previously been identified as a major reason consumers interact in social-networking sites (Clavio & Kian, 2010; Hollenbaugh, 2011; Mehdizadeh, 2010). In addition, the variety of communication tools and content coverage has previously demonstrated a positive association with consumer behavior (Wilson et al., 2010). These findings indicate that a variety of communication tools in combination with different types of content may enable brand managers to appropriately communicate using these formats.

**RQ2a: Brand Attributes**

The contextual analysis revealed that both NCAA and Big 12 pages used more coverage of product-related attributes (i.e., success, star player, team members) than non-product-related attributes (i.e., management, logo, history). The frequent coverage of product-related attributes demonstrated that teams are using Facebook to further the brand image of the product and emphasize the experience of the game. Facebook users may potentially be introduced to these items on a regular basis, thus reinforcing the experience and consumption of product-related attributes. Product-related attributes have been associated with higher purchase intentions and are a factor influencing consumption behavior (Gladden & Funk, 2002; Kaynak et al., 2008). According to the MOSC, these results support the notion that the type of brand coverage may influence fan interactions and communication on Facebook pages (Pedersen, Miloch, & Fielding, 2007).

**RQ2b: Brand Associations**

The different organizational goals and uses of brand associations are identified through the content examined. Both organizations used Facebook to portray the game experience most frequently through team success, rivalry, and socialization. The results also suggest that certain brand associations may be more clearly and easily communicated in this media format, thus identifying a predisposition to types of brand-association factors sport teams may post on Facebook. These associations are broadly linked to the concept that fan identification with a particular sport team may elicit satisfaction by experiencing sport (Funk et al., 2009).

Agenda-building strategies of particular brand associations were identified in the two different sport organizations. These strategies offer unique opportunities to actively mediate and manage a favorable public perception (Clavio & Miloch, 2009). Specifically, the NCAA pages leveraged commitment and organization attributes more frequently than other categories. These specific themes are relevant to furthering the overall brand image of student-athletes and organizational mission of the NCAA brand.
The Big 12 Facebook pages used brand-mark and stadium categories as their next largest brand-association factors. These types of brand associations are unique to the college athletic department’s brand and future revenue opportunities. The stadium is particularly important in fostering the perception of attending the game and exclusivity to brand.

RQ2c: Marketing Promotions and Information

Time-relevant general information represents most of the content examined for both groups. Hambrick et al. (2010) and Schultz and Sheffer (2010) reported similar findings in that most content posted was informational and focused on relationship building rather than short-term marketing activation. In addition, Kassing and Sanderson (2010) indicated that event-specific information was reported to cultivate and increase interactivity with fans using social media. Major marketing-activation techniques are not frequently being used, which suggests a cultivation of long-term relationship management by both organizations.

RQ3: Facebook User Interaction

The number of Facebook users per group reveals a general difference in audience for the two groups. The Big 12 pages had a generally higher number of Facebook users per page than the NCAA pages. These findings suggest that the audiences for these two groups may be characteristically different. However, the management techniques reveal that even though these two groups have different sizes of audiences to entertain, their management techniques are relatively similar. The use of the communication tools and type of coverage in brand-related attributes signifies that the use of Facebook tools and strategy to engage Facebook users was similar regardless of audience size. Muntinga et al. (2011) suggest that engaging online consumers should be tailored to the specific organizational purpose and consumer characteristics. Similarly, the MOSC directly associates management behavior with the outcome of consumer interaction and satisfaction with online brand experience (Pedersen, Miloch, & Fielding, 2007). Furthermore, the significantly different fan interaction between the two groups reinforces the idea of managing content and online consumer interactivity. Clavio and Kian (2010) noted that sports consumers reported using social media as a tool not only for aspects of fandom and information seeking but also to directly communicate in an interactive manner. Different uses and gratifications via Facebook user interaction on Facebook would be appropriate to examine.

Limitations and Future Research

It is important to note the limitations with the design of this content analysis. Facebook pages represent only one media outlet for examination. In addition, the data were collected from this past year; it would be of benefit to examine trends over an extended period of time to determine whether management techniques continue or change over time. Facebook user-interaction levels provide a way to describe the current interaction but are not controlled for any type of covariate (i.e., time of day). Facebook user-interaction values would be important for determining whether fan
interaction is increasing or decreasing as the popularity of social media continues to rise. In addition, a qualitative analysis of actual Facebook user comments may provide more specific information about consumer behavior. Future research should include a qualitative analysis of content posted to Facebook pages and Facebook users’ comments on it.

**Conclusion**

The findings from this study revealed multiple approaches to evaluating communication, branding, and marketing-management techniques through social media. Facebook users experience the content posted on sports-team pages in real time. As this experience may influence satisfaction, sport marketers can use this communication tool to manage brand perception and expectation and thus influence satisfaction with brand in real time (Bowden, 2009).

The frequency of posting revealed a difference in the techniques these two organizations used to manage their content coverage. The NCAA pages were primarily used for event-specific coverage around the play-off season and NCAA tournaments, which is also the time period when TV coverage is specific to the NCAA (i.e., Final Four Basketball, Women’s Softball World Series). During this time, Facebook coverage was specifically related to aspects of the product-related components of college athletics. However, the Big 12 pages displayed active communication and brand-management behavior throughout the different seasons. The management technique of frequent content updates throughout the seasons signifies the consistent use of this media source throughout the school year. These results indicate that content was uploaded according to events and time frames that were relevant to the specific Facebook audiences.

Although these two groups have different organizational purposes, their similar management techniques of communication tools, marketing strategies, and brand attributes have valuable practical implications. First, Facebook pages were generally used to cultivate long-term relationships with Facebook users, and content was focused on experiencing the brand through real-time online interaction. Second, the similar techniques indicate that Facebook tools and functions may determine the types of content illustrated in this format.

The practical applications of the findings illustrate the impact social-media content can potentially have on sport consumer behavior and their potential to manage brand presence and identity through Facebook. Essentially, the findings suggest that the management of communication techniques and the content posted to these sites can potentially increase brand exposure and, as a result, facilitate two-way interaction.

**References**


Facebook and College Athletics


