

EXAMINING TWITTER ENGAGEMENT IN
NEWSPAPER SPORTS BEAT REPORTERS' LIVE-GAME COVERAGE

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DEDICATIONS

To my parents, Debbie and Larry, thank you for teaching me that hard work and integrity always pays off in the end. I am so fortunate to have you as role models no matter where I go. I love you both.

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Examining Twitter Engagement in Sports Newspaper
Beat Reporters' Live-Game Coverage

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Abstract

Newspaper sports beat reporters have experienced challenges to their workflow as social media, such as Twitter, has emerged as an essential tool in the reporting of live-game events. The purpose of this study is to assess the ways newspaper sports beat reporters meet consumers' needs for information during these live events. Using retweets and likes as measures of engagement, this study found that sports information consumers are more responsive to newspaper sports beat reporters' Twitter content during live-game coverage when it includes analysis, opinion, entertainment, and visual content. This study suggests that newspaper sports beat reporters should capitalize on their exclusivity and insider access to create Twitter content beyond mere play-by-play results that are typically available to those following the game through more traditional means such as television, radio, or in person. These strategies could distinguish newspaper sports beat reporters in an increasingly crowded sports media landscape.

Introduction

In July 2014, the world watched as Germany roared past perennial-favorite and host country Brazil in a 7-1 rout to capture the FIFA World Cup. Media coverage was intense as soccer is widely regarded as the world's top sport in terms of participation and spectatorship. Germany's surprising, yet convincing win brought unprecedented attention to the World Cup. This was evident on Twitter, where Germany's fifth goal – and proverbial “nail in the coffin” – became the most “tweeted-about” event to that point in Twitter's history. Users shattered previous records with 580,000 tweets per minute (TPM) following Sami Kherida's goal (Chase, 2014). At the time, the other top-five most tweeted moments included Barack Obama's 2008 Democratic National Convention speech, Jamaica's Usain Bolt's 200m win at the 2012 London Olympics, Beyoncé's Super Bowl Halftime Show, and Miley Cyrus's controversial “twerking” performance at the 2013 MTV Video Music Awards (Chase, 2014). While the list of “most tweeted moments” shuffles frequently, there is a clear pattern: many of the most active Twitter moments are sports related. Twitter offers an ideal platform for real-time response to any event, but its mobile compatibility, easy accessibility, concise messages, and interactive structure lends itself very well to sports.

While a fair share of sports-related Twitter activity involves “smack talk” and other fan-dominated conversation typical of a sports bar, sports journalists, including those in traditional broadcast and print platforms, have added Twitter as a valuable tool (Kindred, 2010). Despite the perception that digital technology has left their medium behind, newspaper sports beat reporters, in a sea of bloggers and increasingly informed fans, remain influential nodes within Twitter's complex information grid. Newspaper

sports beat reporters can offer exclusive information and perspective due to their proximity, expertise, and accessibility to specific sports, teams, and athletes often unavailable to the general public and even the most established bloggers (Kindred, 2010). As newspapers struggle for relevance and readership in the digital age, one could argue that newspaper sports beat reporters are as valuable as ever. Consumers aggressively pursue their expert-level perspective and “insider” knowledge.

As Twitter has become a necessary tool in sports media, are traditional newspaper sports reporters utilizing Twitter’s maximum potential during live sporting events? What types of in-game tweets are most likely to engage their audience?

This study includes a comprehensive analysis of tweets produced by traditional newspaper sports reporters between the official start and finish of sports events. It utilizes uses and gratifications theory, which is the foundation of Seo and Green’s (2008) Motivation Scale for Sport Online Consumption (MSSOC), and reviews the literature related to Twitter’s emergence in what Rowe and Hutchins (2009) describe as the new “Media Sport Content Economy” (355). It features a content analysis of in-game tweets from newspaper sports beat reporters and discuss both theoretical and practical implications of the findings to offer more insight on their transformation into the digital age.

Literature Review

Theoretical Overview

The evolution of understanding why consumers seek sports information is an important element in creating fruitful, worthwhile connections between nodes on this grid of sports knowledge. In the last 20 years, as sports journalism has gained credence in scholarly circles, researchers have worked to create criteria to assess sports information consumers' motivations. Despite different methodologies and varying outcomes, these motivation scales tend to share uses and gratifications as a theoretical background.

The uses and gratifications (UG) theory of mass media has transcended both traditional and new media eras. The theory centers around the idea that the audience is making active choices about their media consumption based on particular goals (Clavio and Walsh, 2013). Research in UG has resulted in differing classification schemes to sort and define audience functions (Katz, Blumer, and Gurtevitch, 1974). These categories may be related to an intrinsic or perceived media or even sociological and environmental circumstances (p. 516).

Uses and gratifications (UG) emerged in the 1940's when media researchers began to examine why media consumers actually listened, read, and viewed particular content (McQuail, 2010, p. 423). For example, why were radio soap opera listeners (primarily women) so loyal to these seemingly "superficial" programs (McQuail, 2010, p. 423)? Researchers found listeners were motivated because the programs offered a source of "emotional release" and constructed role models for listeners (McQuail, 2010, p. 423). UG theory re-emerged and became a permanent fixture of media scholarship in the 1960's and 1970's. Researchers, including Katz, Blumer, and Gurtevitch (1974),

determined that media consumers made rational, purposeful media choices than were influenced by their personal goals and needs far more than other factors like aesthetics and culture (McQuail, 2010, p. 424).

There were three initial studies of sports information consumer motivations. First, Kahle, Kambara, and Rose (1993) developed the Fan Attendance Motivation (FAM) criteria by surveying college football game attendees using Kelman's (1958) theory of attitudinal influence, where only four factors were considered: Self-Expression, Experience, Camaraderie, and a "Love of the Game."

FAM, however, proved to be less useful beyond the scope of physical game attendance, as media-based involvement in sports included more complex factors. Wann (1995) advanced this work with his Sport Fan Motivation Scale (SFMS). In his study, Wann named eight motivating factors for consuming sports information: Eustress, Self-Esteem Benefits, Escape, Entertainment, Economic Factors, Aesthetic Qualities, Group Affiliation, and Family Needs. Later, Milne and McDonald (1999) outlined the Motivations of Sport Consumer (MSC) scale, citing twelve "motivation constructs" for sports consumers, including Risk-Taking, Stress Reduction, Aggression, Affiliation, Social Facilitation, Self-Esteem, Competition, Achievement, Skill Mastery, Aesthetics, Value Development, and Self-Actualization (p. 23-26).

With the three most prominent fan motivation studies available, Trail and James (2001), through a comprehensive review of the existing literature and their own study, developed the Motivation Scale for Sport Consumption (MSSC). After some revision, Trail and James (2001) demonstrated the MSSC to be more psychometrically sound than previous efforts by Kahle, et al. (1993), Wann (1995), and Milne and McDonald (1999).

The MSSC is comprised of nine factors representing motivation for sport consumption: Achievement, Acquisition of Knowledge, Aesthetics, Drama/Eustress, Escape, Family, Physical Attractiveness of Participants, the Quality of Physical Skill of the Participants, and Social Interaction (Trail and James, 2001).

While the MSSC improved on previous measuring instruments, it did not take into consideration the complexity of the Internet. Using existing scales for seeking information online, Seo and Green (2008) developed the Motivation Scale for Sport Online Consumption (MSSOC). Like previous measurement tools, the MSSOC features criteria developed using literature reviews and then tested them using both qualitative and quantitative studies. Seo and Green (2008) found their results to be both psychometrically sound and consistent with previous studies. They developed the following categories for online sports motivation: Information, Entertainment, Interpersonal Communication, Escape, Pass Time, Fanship, Team Support, Fan Expression, Economic, and Technical Knowledge (Seo and Green, 2008, p. 104).

The MSSOC has served as a foundation for more recent developments in motivation scales. Witkemper, Lim, and Waldburger (2012) used Seo and Green's (2008) MSSOC to create a platform-specific motivation scale dubbed Sports Twitter Consumption (STC). This model classifies sports-related tweets into the following categories: Information Motivation (IM); Pass-Time Motivation (PTM); Fanship Motivation (FM); and Entertainment Motivation (EM) (p. 173). Witkemper, Lim, and Waldburger (2012) claim that STC is a more precise measure of motivation because it is specific to Twitter and takes into account user constraints unlike previous models, including the MSSOC (p. 174). While constraints are an important consideration in media

usage, the STC model is best suited for a survey-based methodology, not a content analysis like the current study. Moreover, the study focused specifically on athlete-operated Twitter accounts, rather than those run by teams or non-team affiliated individuals such as media members, including newspaper sports beat reporters.

Stavros, C., et al. (2013) created a classification model more suited to content analysis. They measured fan motivation by examining Twitter activity concerning the National Basketball Association (NBA) during the off-season in an effort to identify the most engaged fans who follow the league despite the absence of daily game action (p. 5). From this content analysis emerged four categories of tweets: Passion, Hope, Esteem, and Camaraderie. While Stavros, C., et al. (2013) produced useful theoretical contributions and management suggestions, because it is founded on off-season tweets, the model may not be as applicable to analysis of in-season, live-game tweets.

Despite the more recent development of sports information consumption motivation scales, Seo and Green's (2008) MSSOC was determined to be most appropriate for this study. It is a broader approach to measuring motivations, which explains why both Witkemper, Lim, and Waldburger's (2012) Sports Twitter Consumption (STC) scale and Stavros, et. al.'s (2013) classification model used MSSOC as a starting point, as is the case with this research endeavor. In addition, each of the more recent scales were developed using data sets (i.e. off-season tweets, athlete-produced tweets) and methods (i.e. surveys) far different than those included in this study. Witkemper, Lim, and Waldburger's (2012) Sports Twitter Consumption (STC) scale also leans towards marketing interests. Lastly, Seo and Green's (2008) MSSOC is a well-known, tested measurement tool for sports media scholars.

Twitter

Twitter allows users to create 140-character messages featuring text, photos, videos, or Web links that are transmitted to their “followers” who can then “retweet,” “like,” and/or reply. These messages, also known as “tweets,” appear on a follower’s timeline (Sheffer and Schultz, 2010).

Users can retweet a particular message to send it from its origin to their followers, similar to forwarding an email. This can lead to a domino effect and mass distribution of just one tweet. Users can also “like” specific tweets and send private “direct messages” to other users. Retweets and likes are often used to measure the impact and influence of certain Twitter users and messages (Reichard-Smith and Smith, 2012).

Another powerful feature on Twitter is the “hashtag.” It allows users to sort tweets into specific conversations. A hashtag is a word or series of words beginning with the “#” symbol. Users place these hashtags within their tweets so others can search or click on hashtags to filter information related to a specific event or topic (Reichard-Smith and Smith, 2012).

The Pew Internet Research Center reported that 23% of U.S. online adults used Twitter in 2014, a five-percent increase from the previous year (Duggan, et al., 2015, p. 6). In addition, 36% of Twitter users visit the website or mobile app at least once per day (Duggan, et al., 2015, p. 10). As of December 31, 2015, Twitter reported having 320 million monthly active users sending 500 million tweets per day in 35 different languages (About Twitter, Inc., 2016).

Twitter draws comparisons to the telegraph as a brief, primarily text-based communications tool used to send messages containing information that is typically

relevant for a limited amount of time (Hutchins, 2011). Communications theorist James Carey (1989) regarded the arrival of the telegraph as communication distancing itself from transportation (Peters, 2003). In a similar fashion, Harold Innis viewed the telegraph as “space-based” form of communication, as opposed to time-based, where messages travel much faster and are unchained from physical constraints, like stone tablets or oral storytellers (Peters, 2003). Like the telegraph, Twitter adheres to the transactional model of communication where both senders and receivers transmit messages in a feedback loop (Reichard-Smith and Smith, 2012). That said, Twitter’s speed, accessibility, and mobility easily exceed the telegraph, introducing new ways of establishing relationships and initiating conversations that would not have been possible in previous media climates (Hutchins, 2011).

Twitter has been a “hot topic” in scholarly research during the past 10 years due in part to its massive, readily accessible, and customizable data (Fry, 2014). Scholars have performed several content analyses and user-based inquiries related to Twitter, so much so that some academics are pushing for more rigorous and diverse Twitter research (Wenner, 2014). Williams, Terras, and Warwick (2013) report that the number of published research papers related to Twitter has increased from three in 2007 to 320 in 2011 (p. 10). By August 2014, academic publication database Scopus returned 2,000 academic papers and 3,000 conference papers with the word “Twitter” in their titles, keywords, or abstracts (Fry, 2014).

Sports and Twitter

From traditional newspapers to mobile devices, those seeking sports news, scores, statistics, and other information are among the most loyal and frequent news consumers

(Miller and Washington, 2013). From the very beginning, early Internet adopters sought sports information online. Seo and Green (2008) report that in 2000 – within the relative infancy of the Internet – 72% of fans of America’s “Big Four” professional leagues – Major League Baseball (MLB), the National Basketball Association (NBA), the National Football League (NFL), and the National Hockey League (NHL) – said they checked scores online. Among Americans with access to a personal computer in 2000, 39% used the Internet to access sports information (Seo and Green, 2008). The arrival of Web 2.0 has further enabled sports-focused users, allowing for customizable and interactive experiences, including Twitter (Seo and Green, 2008).

Twitter usage in the sports community extends from fans to media to athletes and beyond. Hambrick (2012) outlined the sports industry’s heavy presence on Twitter, highlighting accounts operated by governing bodies (such as USA Cycling), sports-focused media outlets (such as ESPN), individual clubs/teams, sports-media personalities (such as Fox Sports’ Jay Glazer), sporting goods manufacturers and retailers (such as Under Armour and Dick’s Sporting Goods), and athletes themselves.

Twitter use by athletes is a frequent topic of discussion in sports. Athletes use Twitter in a multitude of ways from interacting with fans to marketing their personal brands and products (Hambrick, 2012). Twitter, however, has proven to be somewhat tumultuous terrain for athletes with many landing in “hot water” by criticizing league officials, picking fights with fans, or taking controversial stands on social/political issues, just to name a few documented examples (Price, et al., 2013; Reed, 2012). These behaviors have resulted in the implementation of league- and team-level Twitter policies

that limit and even prohibit the use of Twitter by individual athletes (Price, et al., 2013; Reed, 2012).

Despite some Twitter transgressions, the sports industry has embraced Twitter and its features with great success. Sports leagues and individual teams regard their official Twitter feeds as a key tool for information dissemination and brand building. In a survey of sports information directors from European football (soccer) clubs, Price, Farrington, and Hall (2013) found that more than 80% view their official club Twitter feed as a means to attract traffic to their team website, followed closely by fan communication. Breaking news and match updates were third and fourth priorities (Price, et al., 2013).

Fans, promoters, media, and even athletes use hashtags to increase exposure and organize discussion. For example, Reichard-Smith and Smith (2012) analyzed tweets related to the 2012 NCAA Men's Baseball World Series Championship featuring specific event hashtags, such as "#CWS". Hashtags are a working example of social-identity theory, wherein individuals establish their identities through group affiliation (Hogg and Terry, 2001). Hashtags create a sense of community by enabling fans to label their individual tweets, just as they would wear their favorite team's jersey (Reichard-Smith and Smith, 2012). Reichard-Smith and Smith (2012) believe hashtags can be useful in targeting niche groups and identifying the most engaged Twitter users within an increasingly fragmented sports audience (p. 551).

Sports fans, a traditionally loyal, highly motivated, commercially desirable, and engaged audience, are drawn to Twitter for its ability to foster identification and bask in the reflective glory (known as "BIRGing") of their beloved athletes and teams (Wann,

2006). Similar to “real world” venues such as stadiums, arenas, sports bars, and living rooms, Twitter harbors extreme emotional displays in line with traditional sports chatter, including “smack talk,” during games. Twitter also presents the very appealing opportunity for fans to interact directly with athletes, a major factor in strengthening sports engagement (Wann, 1993; Sheffer and Schultz, 2010). By using Twitter, fans can consume, produce, and interact in a fluid environment that mirrors the pace and intensity of the sport (Price, et al, 2013).

Live tweeting

Twitter is increasingly used to recount, analyze, and discuss events in nearly “real time” – a phenomenon known as “live tweeting” (Hewitt, 2014). Twitter users, both amateurs (e.g. sports fans) and professionals (e.g. journalists), are live tweeting many different occurrences – both planned and unplanned – including television shows, breaking news, and – most relevant to this study – sporting events (Hewitt, 2014). Research suggests that live tweeting involves highly engaged users with advanced knowledge of Twitter and extreme loyalty to what they are observing (Huotari, 2013).

Despite the emergence of time-shifting technologies such Digital Video Recorders (DVR’s) and on-demand Web TV services like Netflix, Lochrie and Coulton (2012) report that users are still drawn to live events in order to take part in a “mass shared experience” (p. 199). This includes live tweeting, adding significant value to live television programming by deterring DVR usage (p. 202). Gantz, et. al. (2006) discovered that sports TV viewers are more motivated to live tweet during live games and other sports-related programming than even the most dedicated fans of reality television and prime-time dramas.

While the characteristics of live tweeting correlate well with sports, a great deal of scholarly research on live tweeting relates to activity during non-sports television programs. Huotari (2013) examined the content production and behaviors of live tweeters during episodes of the hit musical TV show *Glee*. He found these live tweeters to be “empowered” with “control [of] her/his TV viewing experience better than before” (p. 48). These live tweeters were more likely to experiment with Twitter features and seek growing webs of networks related to their shows, such as bloggers, stars/players, etc. (p. 48).

This type of dedication to Twitter, combined with loyal TV viewership, has given rise to the “second screen,” where users observe a game or program through a traditional medium like radio or television, while at the same time, utilize a computer or mobile device to access additional information on websites or apps, including Twitter (Sahami Shirazi, et al., 2011). In the fourth quarter of 2010, smartphone sales (100.9 million units) outsold PC’s (92.1 million units) for the first time, indicating that users are quickly shifting their computer priorities from the desktop/laptop to the smartphone (Lochrie and Coulton, 2012). As mobile devices became consumer “must-haves,” television consumption remained steady, allowing the two to co-exist. A survey conducted by Yahoo! and RazorFish revealed that 80% of television viewers “mobile multitask” while they watch television, with 38% using their mobile devices to consume some kind of content related to television programming (Lockhorn, 2011). Along those same lines, Lochrie and Coulton (2012) suggest that viewer engagement increases significantly when TV programming combines Twitter elements like mentions, follows, and hashtags. Furthermore, Fred Graver, Twitter’s self-described “Head of TV,” claims that 95% of

public social media discussion about TV takes place on Twitter (Giglietto and Selva, 2012).

Today, the majority of live, play-by-play sports action continues to be consumed through television, radio, and game attendance, but these same sports information consumers are increasingly turning to web-based technologies, including social media platforms such as Twitter, to get their information fix (Price, et al., 2013). Reichard-Smith and Smith (2012) emphasize that sports consumers are no longer just watching the game; they are interacting with the game, live tweeting before, during, and after, while at the same time following information and commentary about the event. Castells, et al. (2007) report that live sporting events are the second-most-common location for tweets, behind only public transportation and ahead of conferences/meetings, campus classrooms, and hospitals.

Sports Business Journal reports that popular online sports sites such as ESPN.com, 247Sports.com, and MLB Advanced Media receive, on average, at least 20% of their traffic from mobile devices with even higher levels during live games and other breaking news events (Miller and Washington, 2013).

Due to its shared and inherently loyal viewership, sporting events are ripe for second screen activity, including live tweeting. Super Bowl XLVI, where the New York Giants defeated the New England Patriots, is considered a seminal moment in the second-screen phenomenon (Miller and Washington, 2013). With more than 111.3 million Americans watching on television, Google reports that 41% of game-related searches originated from mobile devices (Miller and Washington, 2013). In regards to live tweeting, users sent more than 12,000 tweets per second (TPS) from kickoff to final tick

– a then record-setting clip and nearly triple the amount of the previous Super Bowl (Eadicicco, 2012).

Beat reporting

Beat reporting, the practice of reporting on a specific topic on a frequent, if not, daily basis, has been adapted to nearly all manifestations of media, despite originating in the early days of the newspaper. The term “beat” was borrowed from police jargon as it describes an area that officers continually patrol, monitoring activities and taking action should a crime occur (Hall, 1936). Newspaper reporters were encouraged to cover a topic – be it science, crime, sports, etc. – in the same fashion, while at the same time creating relationships with officials and other influentials within their beat (Hall, 1936).

While financial troubles and the digital revolution have reshaped the newspaper industry, Ryfe (2009), citing his ethnographic observations and other studies, emphasizes the continued importance of beat reporting as an “investment” for journalists in order to understand the agency and coding of “daily news production” (p. 666). Juana Leon (2010), the founder and editor of the Columbian political blog *La Silla Vica*, emphasizes the importance of blogs to the mainstream media beat reporter. She contests that bloggers who take a “beat-like” approach to their coverage often report details and breaking news more quickly than mainstream media beat reporters bogged down by the necessity to cover multiple beats at once, due in part to recent cuts in workforce (Leon, 2010, p. 9). As such, the “blogosphere” – including Twitter – has become an important *source* for a beat reporter (Leon, 2010, p. 10).

Traditional communication theory emphasizes newspaper reporters’ status as “influentials” in the chain of information dissemination (Rodgers, 1962). In Katz and

Lazarsfeld's (1970) two-step flow theory, print newspaper reporters could be considered "opinion leaders" who are well connected, highly informed, and generally respected. Furthermore, Chaffee (1986) noted that news consumers were more interested in credibility of sources rather than channel. Contemporary literature suggests that print newspaper reporters' heightened status as "insiders" garners a greater following on Twitter (Cha, et al., 2010; Price, et al., 2013). Price, et al. (2013) suggest that traditional newspaper reporters' exclusive access and "insider" status have maintained their value despite the struggles of their parent publications.

Newspaper sports beat reporters

Within both traditional and digital news worlds, sports coverage remains a powerful draw for news consumers (Tewksbury, 2003). The sports section is the third-most-read section of daily newspapers, trailing only the front page and business sections (Miller and Washington, 2013). More than 38 million U.S. adults, or 25.5% of the adult population, regularly read the newspaper sports section (p. 171). This data suggests that the strong ties between newspapers and sports-motivated readers remain despite the arrival of digital media.

Newspapers have played a pivotal role in the history of sports journalism, as they were the first mass media to cover sports consistently, establishing standards for radio and television, which later came to dominate sports coverage (Boyle, 2006). The mainstay of newspaper sports coverage is the beat reporter. Literature on the role and definition of a newspaper sports beat reporter is somewhat limited considering its long history and ongoing significance. The newspaper beat writer position came into existence in the 1890's as urban newspapers began to see an increased demand for information on

the growth of baseball (Anderson, 2001). Sports columnists and sports beat reporters are the anchors of a newspaper's sports coverage. Columnists - often referred to as "Number Ones" along the same lines as a baseball team's best starting pitcher - focus primarily on analysis and commentary (p. 45). Meanwhile, sports beat reporters cover specific sports or teams, attending nearly every team function, including games, practices, press conferences, and more, establishing relationships of varying degrees of intimacy to acquire information (p. 46). In the 24/7 media landscape, newspaper sports beat reporters remain important elements, but face increased competition from a growing press corps, the introduction of digital media, more team-hired information gatekeepers, and direct contact between athletes and consumers (Boyle, 2006; Reed and Hansen, 2013).

Twitter and Newspaper Sports Beat Reporters

Newspapers have been providing live, in-game updates long before the advent of Twitter. In fact, *Chicago Tribune* reporters used the telegraph to provide real-time updates of the 1897 "Fight of the Century" between "Gentleman Jim" Corbett and "Ruby Rob" Fitzsimmons in Carson City, Nevada, sending updates every 30 seconds (Stephens, 1983).

In today's digital age, newspaper sports beat reporters use Twitter to create dialogue, find information, publish, and profile themselves or their news organizations (Deprez, Mechant, and Hoebeke, 2013). Reed (2012) found that print sports journalists on Twitter check their accounts more than five times each day (p. 563). Among those on Twitter, nearly 90% of newspaper sports beat reporters follow athletes and/or teams that they cover (Reed, 2012, p. 564).

Twitter gives newspaper sports reporters the opportunity to offer commentary and analysis, while at the same time, act as “curators” for game-related tweets, selecting reliable sources and useful information for retweeting (Price, et al., 2013). This role underscores traditional newspaper sports reporters’ role as both information providers and expert analysts (p. 459).

Newspaper sports beat reporters can use Twitter on “game day” and combine breaking news and analysis prior, during, and after games (Jones, 2010). *USA Today* and *Denver Post* NFL beat reporter Lindsay Jones (2010) says she tweets “newsy elements” such as injury reports, analysis, and quick reactions to plays during games (p. 57). Jones (2010) rarely tweets play-by-play results because she believes most of her 12,000 followers are already watching the game. She says Twitter creates an unprecedented interactive environment where she can ask fans for feedback, even soliciting restaurant suggestions while traveling (Jones, 2010, p. 59).

In addition to producing information or promoting their work, traditional newspaper sports reporters are using Twitter as a fact-finding tool, combing through tweets to find tips or starting points for stories that may have otherwise gone unreported (Reed and Hansen, 2013). More than 80% of print sports journalists said they have found breaking news and story ideas on social media (Reed and Hansen, 2013). As Hutchins (2011) suggests, Twitter can provide instant insight into athletes’ thoughts and observations. For example, in 2009, Australian Rugby League (ARL) player Matt Rogers tweeted angrily in disagreement about the suspension of fellow player. Rogers soon removed the message, fearing league discipline, but not before ARL beat reporters saw the tweet and followed up on the story (Hutchins, 2011).

Despite adding a new dimension to sports reporting, Twitter adoption has been met with mixed reactions. After interviewing and observing several sports beat reporters, Kindred (2010) believes Twitter presents never-before-seen challenges. For example, beat writers are now constantly writing for Twitter and live blogs, often missing live-game action or press box chatter that once served as central content for game stories and columns (Kindred, 2010). Kian and Murray (2014) discovered that newspaper sports reporters feel “24/7/365” pressure to remain on top of a story to avoid being scooped by bloggers and/or social media users. Kindred (2010) questions whether this new workflow is good for journalists, readers, and outlets alike. He concludes that using digital media is a necessary part of the traditional sports beat writer’s game routine, despite being rather tedious. Publications, such as newspapers, utilize social media with the intention of building their brands and creating connections with their audiences (Kindred, 2010). Twitter can also act as a gauge for audience interest in and response to breaking sports news (Hutchins, 2011). Thus, the RQ1 for this study is:

RQ1: How do in-game, live sporting event tweets from sports newspaper beat reporters appeal to sports information consumer motivations, including information, entertainment, interpersonal communication, economics, technical knowledge, and content?

Despite their increasing acceptance and embracing of digital media, evidence suggests that print sports journalists are underutilizing Twitter. In Sheffer and Schultz’s (2010) survey of print sports journalists, 70% stated that they did not use Twitter to promote their own traditional media outlet and only 17% used Twitter to update previously published information (p. 478). In their study of Flemish newspaper sports

reporters, Deprez, et al. (2013) found that only about half of the group had Twitter accounts. Reichard-Smith and Smith's (2010) examination of College World Series tweets stated that traditional media organizations, such as newspapers, used Twitter only to relay live-game occurrences, such as play-by-play information without going into deeper description or analysis (p. 548). Some newspaper reporters used retweets as a means to share opinions but did not contribute their own analysis (p. 548). Many compete only to tweet the same information, such as baseball lineups in list form with no additional observations (Kindred, 2010). Sherwood and Nicholson (2012) found, in their survey of newspaper sports journalists, that Twitter was used to see "what's happening" rather than reporting news (p. 953).

Perhaps the greatest threat to the newspaper beat reporter comes from the "blogosphere." Sports bloggers are crowding their once exclusive space, while fans are viewing next-day game stories as "old news" after consuming the game through live means, such as radio or television. That said, industry experts, such as *The Slate's* sports media critic Robert Weintraub (2007), are suggesting that the role of the sports beat reporter needs to evolve. He believes that sports newspaper beat reporters should exhibit their creativity and deep insights without the "play-it-straight, just-the-facts approach" (p. 16). British sports writer Charlie Lambert believes sports journalists need to "raise their game" by adding "real value and insight that makes their Twitter feed important to follow" (cited in Boyle, 2013). Therefore, RQ2 for this study is:

RQ2: Do sports information consumers engage (like and/or retweet) with newspaper sports beat reporters' in-game tweets differently, based on appeals to the various sports information consumer motivations?

By assessing consumer motivations and engagement, we can add to existing scholarship to offer new insights, guidelines, and suggestions for live event Twitter coverage by newspaper sports beat reporters.

Related Studies

Scholars have used content analysis in previous studies to analyze Twitter activity related to sports with a variety of parameters ranging from hashtags (e.g. Blaszkka, et al., 2012; Reichard-Smith & Smith, 2012), tweets by athletes (Hambrick, et al., 2010), and interaction between fans and teams (Price, et al., 2013). The following section will discuss two specific studies mentioned previously that provided further guidance and insight for this research.

Because it utilizes the same theoretical framework and employs parallel methods, the most similar study to this research is “Understanding Professional Athletes’ Use of Twitter: A Content Analysis of Athlete Tweets” by Hambrick, et al. (2010). These researchers randomly selected active professional athletes from multiple sports and captured their 20 most-recent tweets to create a sample size of 1,962 tweets (p. 459). Hambrick, et al. (2010) then utilized Seo and Green’s (2008) MSSOC to create a classification system based on motivations, including the following categories: Interactivity, Diversion, Information Sharing, Content, Fanship, and Promotion (p. 460). They used four independent raters to sort the tweets into the aforementioned categories resulting in a 90% agreement rate (Hambrick, et al., 2010, p. 461). They then tabulated the results to produce category percentages. For instance, they found that the majority of tweets – 34% - were interactive, featuring communication between fans, friends, and even family (p. 461).

Hambrick, et al.'s (2010) research was strikingly similar to this research approach with some distinct differences. This current research utilized content analysis where Twitter users are selected and the tweets are captured for analysis based on user characteristics and particular time constraints. While Hambrick, et al. (2010) used athletes and their last 20 tweets, this current study features eight newspaper sports beat reporters and their tweets within the timeframe of live sporting events. Hambrick, et al.'s (2010) use of Seo and Green's (2008) MSSOC as a guide for classifying tweets is a very similar approach to this work. The major difference here is that in addition to calculating the percentage of tweets by category, this project has included measures of engagement such as "retweets" and "likes".

Blaszka, et al. (2012) also conducted a content analysis, but rather than gathering data by username, they used Twitter's "hashtag" feature whereby tweets can be sorted into subject- or event-related categories. This group of researchers wanted to analyze the use of Twitter for the 2011 Major League Baseball World Series by capturing and analyzing tweets using the hashtag: "#WorldSeries". To create a more manageable data set, they took the entire group of tweets and selected every 12th tweet. These tweets were then coded in a similar fashion to Hambrick, et al.'s (2010) study, using a variation of Seo and Green's (2008) MSSOC. This provided the content analysis, but the researchers went a step further by categorizing the senders of each tweet into groups such as media, players, celebrities, etc. (Blaszka, et al., 2012, p. 441). By creating these categories and analyzing the content, Blaszka, et al. (2012) found that interactivity related to Fanship was very common within the tweets (p. 446), while there was a surprisingly low number

(in the opinion of the researchers) of promotional tweets on behalf of Major League Baseball (p. 448).

This study is very similar to the current research, especially in that it tracked tweets related to a specific event and classified them using Seo and Green's (2008) MSSOC. It is different, however, in that it uses a single hashtag (in this case, #WorldSeries) to recognize tweets over an entire sporting series, not just one game. It also set out to see "who" uses "#WorldSeries", while subjects for this research were pre-selected as sports newspaper beat reporters based on particular attributes (see "Methods").

Need for Further Research

As the literature suggests, Twitter is now a critical tool in sports journalism as a means for research and information dissemination before, during, and after sporting events. Twitter differentiates itself from more stagnate sports journalism venues, such as pre-game predictions on fan blogs or next-day game stories printed in newspapers, as an ideal tool for reporting live, instantaneous in-game coverage rivaled only by sports-media mainstays radio and television. Twitter gives "elite" and "non-elite" users a platform for commentary and analysis in sync with play-by-play action. Sports fans are increasingly using Twitter on "second screen" devices, such as smartphones, laptops, and tablets, to immerse themselves in a unique sports experience all its own (Hutchins, 2014).

The relative abundance of literature related to the effect of Twitter on sports journalists' workflow may indicate that consumer preferences are being overlooked. Lawrence Wenner's (1989) Transactional Model of Media Sports, where the society, consumer, mediated sport content, and "media sports production complex" (the network

of sources that produce mediated sport content), demonstrates the central importance of consumer experience as it is both an exit and entrance point in message transactions.

Wenner (1989) explains that sports consumers are fluid and constantly active, yet, in a trend that seems to continue today, have been “hegemonized” in scholarly studies, a far-too-simple approach. Gantz (2011) writes that modern media sports production complex – with the inclusion of digital elements - is “scrambling” to find ways to both measure and reach an increasing fragmented, complex audience through “cross platform campaigns and content” (p. 10).

Additionally, based on this literature review, sports consumer needs and motivations in relation to the work of newspaper sports beat reporters seem largely neglected. Pegoraro (2014) suggests the popularity of Twitter within sports media circles and challenge to traditional sports media mainstays such as radio, television, and newspaper further underscores the need for more involved research. She states that Twitter, “demands our attention as researchers...to observe how its use and users change as the platform itself evolves and its place in the sport communication realm is solidified” (p. 134).

Methodology

This study used a quantitative content analysis to categorize tweets from newspaper sports beat reporters during live game coverage based on Seo and Green's (2008) MSSOC and measured the engagement rate for each category of motivation for sports online information consumption. By analyzing and then classifying live-game tweets from newspaper sports reporters within the MSSOC, we learned which types of tweets were most engaging to the consumers. This will translate into practical applications for newspaper sports beat reporters.

For this study, data (tweets) was categorized using a model based on Seo and Green's (2008) pre-existing MSSOC instrument. A context model such as this, in the words of Jankowski and Jensen (2002), "features information about the goals of the discourse, its communicative acts, and the properties of the audience" (p. 117). Those findings were then calculated using Twitter analytics with a specific focus on likes and retweets as a measure of engagement.

Content analysis is defined by Krippendorff (2012) as "a research technique for making replicable and valid inferences from text (or other meaningful matter) to the contexts of their use" (p. 24). This technique can produce new insights often leading to practical applications, which is the intention of this particular study. Researchers have used content analysis techniques extensively to explore the use of Twitter in sports media. The topics of these studies have included sports fan interactions on Twitter (e.g. Clavio and Walsh, 2013; Stavros, et al., 2013), sports hashtag usage (e.g. Blaszka, et al., 2013), sports event planning (e.g. Hambrick, 2012), sports marketing (e.g. Witkemper,

Lim, and Waldburger, 2012), sports media use of Twitter (e.g. Deprez, Mechant, and Hoebke, 2013; Price, Farrington, and Hall, 2013), and tweets from athletes (e.g. Hambrick, 2012; Pegoraro, 2010). While this list is certainly not exhaustive, it does demonstrate the prominence of quantitative content analysis in the study of Twitter's sports media presence.

Method Steps

The first step was to collect tweets by newspaper sports beat reporters during specific live events. The unit of analysis is each individual tweet. Because sports is so prominent on Twitter, there is no shortage of data (Hambrick, et. al., 2013; Price, et. al., 2013). In fact, in order to procure a reasonably workable dataset, defining the parameters was essential in this Twitter content analysis. As mentioned, previous studies have used Twitter features like hashtags (e.g. Blaszk, et al., 2012; Reichard-Smith & Smith, 2012) or user types, such as athlete-run accounts (e.g. Hambrick, 2012; Price, et al., 2013; Reed, 2012) to create manageable data sets with variables built in. This study sought to do the same.

In order to create a manageable and balanced data set, multiple elements related to these tweets were considered. Major League Baseball (MLB) was selected because it features the most regular season games (162) of any major U.S. sport, leading to a wealth of tweets (Anderson, 2001). Previous sports-related Twitter content analyses (e.g. Blaszk, et. al., 2012; Hambrick, et. al., 2013; Price, et. al., 2013; Reichard-Smith & Smith, 2012) have included approximately 1,000-2,000 tweets in their data sets and this number was easily attained with MLB. Using MLB as a starting point, based on season-

long observations and consideration of several variables, the data set was generated using tweets from newspaper sports beat reporters covering the respective teams in two similarly sized Major League Baseball (MLB) markets: the Washington, D.C. area (Baltimore Orioles and Washington Nationals) and the San Francisco Bay Area (San Francisco Giants and Oakland Athletics). Each of these newspaper sports beat writers were identified by their own publication, their Twitter profile, and/or Major League Baseball as the primary reporter for the teams listed. While some reporters cover only home games and/or additional beats, these reporters were found to be most active on Twitter during the live-game action of these teams. This study analyzed the live, in-game tweets of the following newspaper sports beat reporters listed in Table 1:

Table 1
Newspaper Sports Beat Reporters Included In Study

Reporter	Team	Newspaper	Twitter Followers (as of 10/1/15)
James Wagner @JamesWagner WP	Washington Nationals	Washington Post	13,700
Chelsea Janes @chelsea_janes	Washington Nationals	Washington Post	7,922
Dan Connolly @danconnollysun	Baltimore Orioles	Baltimore Sun	22,000
Eduardo Encina @eddieintheyard	Baltimore Orioles	Baltimore Sun	17,100
Susan Slusser @susanslusser	Oakland Athletics	San Francisco Chronicle	48,200
John Hickey @jhickey3	Oakland Athletics	Bay Area News Group	8,986
Bruce Jenkins @Bruce_Jenkins1	San Francisco Giants	San Francisco Chronicle	7,755
Andrew Baggarly @extrabaggs	San Francisco Giants	Bay Area News Group	83,600

Existing literature provided additional considerations when selecting the reporters for this study. There are several factors that can contribute to the degree and type of Twitter activity by newspaper sports beat reporters. This research effort attempted to account for multiple variables that may have affected the dataset. These factors included:

Market size. Each market included in the data set (Washington, D.C. and San Francisco Bay Area) features over seven million people and rank fourth and fifth, respectively, in Consolidated Statistical Metropolitan Areas (CSMA) among

media markets with MLB teams (Strait, n.d.). While is no literature was found to suggest that market size influences Twitter activity, using teams in similar CSMA's may mitigate this factor's impact on the data set.

Number of followers. Each newspaper sports beat reporter's Twitter follower number is included in Table 1 above. While there is a large discrepancy between the most followed account (Andrew Baggarly, 83,600) and the least-followed account (Chelsea Janes, 7,922), previous research offers little if any evidence of a correlation between the number of followers and engagement (likes and retweets), which is the primary measurement for this study. In fact, according Cha, et. al. (2010), a user's sheer number of followers has very little to do with its influence on Twitter. The most influential users – and engaging users - can discuss a wide variety of topics and can gain further influence by making a “concerted effort” to post on specific topics, demonstrating some kind of level of expertise (p. 10).

Success of teams. The relationship between Twitter engagement and the success of a team remains unexplored according to this literature review. There has been, however,

some research done on the relationship between TV ratings and team success. Foster, et. al. (2014) found that a higher team winning percentage correlates to higher local TV ratings, particularly with MLB when compared to other professional leagues (p. 367). The teams selected for this data set experienced a wide range of season outcomes in 2015, as depicted in Table 2:

Table 2
Season Records of Teams Included in Study

Team	8/1/2015		9/1/2015		End of Regular Season	
	Win-Loss Record	Games Back of Playoffs	Win-Loss Record	Games Back of Playoffs	Win-Loss Record	Games Back of Playoffs
Baltimore Orioles	53-50	1.0	63-69	6.5	81-81	5.0
Oakland Athletics	46-59	9.0	58-75	12.0	68-94	18.0
San Francisco Giants	57-46	0.0	69-63	5.5	84-78	8.0
Washington Nationals	54-48	0.0	66-65	6.5	83-79	7.0

Note. Data adapted from *Baseball-Reference.com*.

The tweets gathered for this study were posted during games played between these selected teams throughout August and September 2015. This is the latter portion of the MLB regular season when teams are vying for playoff spots. Three of the four teams – Baltimore, San Francisco, and Washington – were competing for the playoffs during much of this period while Oakland, in stark contrast, was near the bottom of the league’s standings. The broad-ranging performances and final positions in the regular season standings create a more varied data set that reasonably accounts for degrees of team success.

After considering these factors, the data set for this study was assembled using all tweets from the selected newspaper sports beat reporters’ Twitter accounts sent between the official time of first pitch and the final out of the following games from the 2015 MLB regular season listed in Table 3:

Table 3
Games Included in Study

Date	Road	Home	Location	First Pitch (Local)	Final Out (Local)	Result
Monday 8/3/2015	Orioles	Athletics	O.Co Coliseum, OAK	7:05 PM	9:52 PM	BAL, 9-2
Tuesday 8/4/2015	Orioles	Athletics	O.Co Coliseum, OAK	7:05 PM	9:46 PM	OAK, 5-0
Wednesday 8/5/2015	Orioles	Athletics	O.Co Coliseum, OAK	12:35 PM	4:08 PM	BAL, 7-3
Thursday 8/13/2015	Nationals	Giants	AT&T Park, SF	7:15 PM	10:06 PM	SF, 3-1
Friday 8/14/2015	Nationals	Giants	AT&T Park, SF	7:15 PM	10:16 PM	SF, 8-5
Friday 8/14/2015	Athletics	Orioles	Camden Yards, BAL	7:15 PM	11:42 PM	BAL, 8-6
Saturday 8/15/2015	Nationals	Giants	AT&T Park, SF	7:05 PM	10:09 PM	SF, 12-6
Saturday 8/15/2015	Athletics	Orioles	Camden Yards, BAL	7:05 PM	9:30 PM	BAL, 4-3
Sunday 8/16/2015	Nationals	Giants	AT&T Park, SF	1:05 PM	3:22 PM	SF, 5-0
Sunday 8/16/2015	Athletics	Orioles	Camden Yards, BAL	1:35 PM	4:44 PM	BAL, 18-2
Monday 8/17/2015	Athletics	Orioles	Camden Yards, BAL	7:05 PM	9:40 PM	BAL, 4-2
Tuesday 9/22/2015	Orioles	Nationals	Nationals Park, WAS	7:05 PM	9:56 PM	BAL, 4-1
Wednesday 9/23/2015	Orioles	Nationals	Nationals Park, WAS	7:05 PM	10:08 PM	BAL, 4-3

Thursday 9/24/2015	Orioles	Nationals	Nationals Park, WAS	4:05 PM	7:10 PM	BAL, 5-4
Friday 9/25/2015	Giants	Athletics	O.Co Coliseum, OAK	7:05 PM	9:54 PM	OAK, 5-4
Saturday 9/26/2015	Giants	Athletics	O.Co Coliseum, OAK	1:05 PM	4:37 PM	SF, 14-10
Sunday 9/27/2015	Giants	Athletics	O.Co Coliseum, OAK	1:05 PM	4:16 PM	SF, 5-4

Note. Date, Home, Road, Location, and Result categories adapted from *MLB.com*. First Pitch and Final Out categories adapted and calculated from *Baseball-Reference.com*.

Using the information and constraints above, 1,232 tweets were extracted using the website TWDocs (<http://twdocs.com>). This service extracts tweet text along with key metrics such as retweets, likes, tweet date, tweet time, and followers. This data was procured in a Microsoft Excel file that was used to categorize tweets and calculate engagement analytics.

Once this data set was retrieved, each tweet was analyzed and coded to the following categories based on Seo and Green's (2008) MSSOC: Information (IN), Entertainment (ENT), Interpersonal Communication (IC), Economic (ECON), Technical Knowledge (TECH), and Content (CON) (104).

Table 4 lists Seo and Green's (2008) original Operational Definitions for the six "Facets of Sport Online Users' Motives" used in the present study and adjusted definitions for Twitter analysis (p. 103):

Table 4

Seo and Green's (2008) Original MSSOC Definitions Modified for This Study

Seo and Green's (2008) Original Operational Definitions of Sport Online Users' Motives	Modified MSSOC Definitions for Purposes of this Twitter Analysis
<i>Information:</i> "Motive to get large volume of sport information and to learn about things happening in the sport world" (p. 86)	<i>Information:</i> "Motive to use Twitter to get large volume of sport information and to learn about things happening in the sport world"
<i>Entertainment:</i> "Motive to enjoy sports and to have fun through use of teams' Web sites" (p. 86)	<i>Entertainment:</i> "Motive to enjoy sports and to have fun through use of Twitter"
<i>Interpersonal Communication:</i> "Motive to share experience and knowledge with other fans in terms of sports" (p. 86)	<i>Interpersonal Communication:</i> "Motive to share experience and knowledge with other fans in terms of sports using Twitter"
<i>Economic:</i> "Motive to get promotional incentives that a team provides" (p. 86)	<i>Economic:</i> "Motive to get promotional incentives that a team provides"
<i>Technical Knowledge:</i> "Motive to learn more specific knowledge of rules and skills Web sites offer" (p. 86)	<i>Technical Knowledge:</i> "Motive to learn more specific knowledge of rules and skills through Twitter"
<i>Content:</i> "Motive to see photos and download media"	<i>Content:</i> "Motive to see photos and download media through Twitter"

Note. Original definitions adapted from Development of the Motivation Scale for Sport Online Consumption in *Journal of Sport Management*, 22, p. 86 by Seo, W. and Green, B., (2008).

Previous studies have included modifications to the MSSOC instrument to better fit the constructs of their variables (e.g. Blaszka, et al., 2013; Clavio and Walsh, 2013; Hambrick, 2012; Stavros, et al., 2013; Witkemper, Lim, and Waldburger, 2012). Even Seo and Green (2008), in their development of the MSSOC, acknowledge that once motives were determined, the criteria needed to be adjusted for the "constructs" of the Internet (p. 85). Though Twitter is an Internet-based tool, Seo and Green's (2008)

categorical motivations required some adjustment in order to conduct this Twitter content analysis.

Therefore, the motivations of *Fanship*, *Team Support*, *Escape*, and *Pass Time* were not measured. Based on the MSSOC’s subscale definitions, the *Fanship* and *Team Support* categories are defined by one’s level of fandom and belief in the importance of their supporting their favorite team, respectively (p. 104). Meanwhile, *Escape* and *Pass Time* concern sports as fans’ “escape from reality” and “something to do to occupy [their] time” (p. 103). These motivations can only be assessed from a fan’s perspective, perhaps using a survey tool, and this study only concerns tweets produced by sports newspaper beat reporters.

Furthermore, the *Information* category, as defined by Seo and Green (2008) in the original MSSOC, is broad. Therefore, subcategories were created to provide opportunity for deeper, more accurate analysis while remaining true to the MSSOC. These *Information* subcategories were used in the content analysis. Using Seo and Green’s (2008) definitions and the subscale questions from their original study, Table 5 depicts category and subcategory definitions that were part of a codebook (see Appendix A) used to train coders

Table 5
Category Definitions for Coding

<i>Information</i> Category and Subcategories		
Subcategory	Definition	Examples (Hypothetical)
<i>Play-By-Play (IPBP)</i>	Any basic information or observations related to game outcomes available to a live-game audience watching on	“Ruth homers here in the 5 th inning. Yankees lead 1-0” “Koufax reaches 100 pitches here in the 8 th inning.” “Manager Alston congratulates Koufax in the

	television, listening on radio, or attending the game, such as balls/strikes, scoring plays, pitch counts, pitch speeds, etc.	dugout with a handshake.”
<i>In-Park Observation (IPO)</i>	Any information or observations available to those physically present in the venue and/or press box that are not part of the IPBP category.	“That was one of the most rousing national anthem performances so far this year.” “And now the fans are chanting, “KOU-FAX, KOU-FAX” as he takes the mound.” “Lightning is visible beyond the buildings past the right-field wall.”
<i>Statistics (IS)</i>	Any numerical information outside the scope of readily available play-by-play results.	“That was Babe Ruth’s 9 th homer in his last 8 games.” “For the first time this year, Koufax will not pitch into the ninth inning.”
<i>Analysis (IA)</i>	Opinion-based statements or predictions from the writer.	“Can’t believe Ruth saw a fastball on an 0-2 count.” “It appears that Koufax is losing his stamina here.”
<i>External News (IEN)</i>	Any information on sports or non-sports stories originating outside the live event being covered.	“The Yankees have called up their star prospect.” “Rumors swirling on the West Coast that Lasorda will be fired.”

Entertainment Category (ENT)

Definition	Examples (Hypothetical)
Game or non-game-related statements that are more light-hearted, perhaps humorous, in nature that aim “to have fun through” Twitter (Seo and Green, 2008, p. 86).	“It’s been a four-bourbon kind of day for this Red Sox pitcher.” “I had a full head of hair when this game began.”

Interpersonal Communication Category (IC)

Definition	Examples (Hypothetical)
Any tweet that contains a username, a.k.a. mention (@username), including replies. NOTE: This does not include retweets or tweets where hashtags are the only Twitter interconnectivity	“What an unbelievable day for @BabeRuth!” “@KoufaxFan I never said he wasn’t the best!”

feature used.
 Replies can be categorized based on content. Coders were able to see the original tweet and categorized as needed.

Economic Category (ECON)

Definition	Examples (Hypothetical)
Any tweet containing information on promotions or purchasing opportunities.	“The first 10,000 fans received Babe Ruth bobbleheads tonight.” “Read my new book about Sandy Koufax. #shamelessplug”

Content Category (CON)

Definition	Examples (Hypothetical)
Any tweet containing non-textual content or links, including but not limited to photos, videos, and/or emojis.	“Link to story about Koufax’s curve ball bit.ly/ladod”

Technical Knowledge Category (TECH)

Definition	Examples (Hypothetical)
Any tweet referencing techniques, rules, and/or strategies related to the game.	“Willie Mays uses his glove to block the sun on a pop up.” “You cannot review a called third strike.” “2-2 count – might be a good time for a hit and run.”

Using the definitions and examples above, each coder was given an instructive codebook (see Appendix A). After being trained on the code above, three coders pre-tested using a code sheet to determine inter-coder reliability. According to Riffe, et. al. (2006), a sample of 10-20% of data can be used to determine inter-coder reliability. Each of the three coders received a pre-test of 145 tweets, or the equivalent of 11.7 percent of the total data set. Wimmer and Dominick (2006) stated that a Kappa coefficient of .75 or higher is an acceptable level of intercoder reliability. The pre-test revealed a Kappa coefficient of .83, well above the .75 threshold. Once inter-coder reliability had been

established, the actual dataset was divided equally amongst coders to complete the analysis.

Once actual coding was completed, inter-coder reliability was retested using an overlap sample from the datasets of 127 tweets, equal to 10.3 percent of all tweets. The inter-coder reliability for this was .90, again surpassing the .75 threshold.

Once inter-coder reliability was checked, the data was analyzed to determine statistics that relevant to the original research questions. RQ1, the percentage of tweets in each coding category, including those that overlap into multiple categories, was tallied using Microsoft Excel. For RQ2, we used data from TwDocs.com to calculate the number of retweets and likes for each tweet. These numbers were aggregated across categories to gain insight into which motivations were more engaging to the consumer in Microsoft Excel. Additionally, to determine each category's contribution to a user retweeting or liking any given tweet, we used SPSS to determine significance (p-value) and partial ETA squared.

Results

RQ1 was concerned with how in-game, live sporting event tweets from sports newspaper beat reporters appealed to consumer motivations, specifically those outlined by Seo and Green's (2008) MSSOC.

For tweets containing at least one category, Information – Play-by-Play was most frequent ($n = 870$, 70.7%), while Economic ($n = 3$, or 0.2%) was the least frequent. See Table 6 for the complete list of frequencies of tweets containing at least one category.

Table 6
Frequency of Tweets Containing At Least One Motivation Category

Code	Category	# of Tweets	% of Tweets
IPBP	Information - Play by Play	870	70.7%
IA	Information - Analysis	365	29.7%
IS	Information - Statistics	295	24.0%
ENT	Entertainment	215	17.5%
IC	Interpersonal Communication	165	13.4%
IPO	Information - In-Park Observation	152	12.3%
TECH	Technical	133	10.8%
IEN	Information - External News	73	5.9%
CON	Content	49	4.0%
ECON	Economic	3	0.2%

Note. Sample Size total is 1232 tweets.

For tweets using only one category, Information – Play-by-Play was again the most frequent ($n = 365$, or 29.7%). On the other end, Economic, Content, and Technical categories did not register a single-coded tweet. Table 7 lists all results for single-coded tweets.

Table 7
Frequency of Tweets Containing Only One Motivation Category

Code	Category	# of Tweets	% of Tweets
IPBP	Information - Play by Play	365	29.7%
IC	Interpersonal Communication	51	4.1%
IS	Information - Statistics	45	3.7%
IA	Information - Analysis	12	1.0%
IEN	Information - External News	12	1.0%
IPO	Information - In-Park Observation	9	0.7%
ENT	Entertainment	6	0.5%
CON	Content	0	0.0%
ECON	Economic	0	0.0%
TECH	Technical	0	0.0%

Note. Sample Size total is 1232 tweets.

RQ2 attempts to measure the engagement of these live game tweets. Retweets and likes were used as measures of engagement. Each frequency category (at least one category and only one category) was measured for both Retweets and likes. Among tweets coded with at least one category, the highest average retweet (see Table 8) was Content ($M = 10.39$) and highest average like (see Table 9) was Entertainment ($M = 20.38$).

Table 8
Average Retweets When At Least One Motivation Category is Present and Departure from Sample Size Average

Code	Category	Average Retweet	+/- vs. Average Sample Size Retweets
CON	Content	10.39	175.1%
IEN	Information - External News	8.56	126.7%
ENT	Entertainment	6.48	71.6%
IPO	Information – In-Park Observation	5.80	53.5%
IS	Information – Statistics	5.63	49.0%
IA	Information – Analysis	4.18	10.7%
IPBP	Information - Play by Play	2.64	-30.2%
TECH	Technical	2.36	-37.5%
IC	Interpersonal Communication	1.25	-66.9%
ECON	Economic	0.00	-100.0%

Note. Sample Size ($n = 1232$) retweet average is 3.78.

Table 9
Average Likes When At Least One Motivation Category is Present and Departure from Sample Size Average

Code	Category	Average Likes	+/- vs. Average Sample Size Likes
ENT	Entertainment	20.38	108.5%
CON	Content	18.08	85.0%
IPO	Information – In-Park Observation	16.13	65.1%
IEN	Information – External News	14.37	47.0%
ENT	Information – Analysis	14.19	45.2%
IS	Information – Statistics	11.83	21.1%
IPBP	Information - Play by Play	7.43	-24.0%
TECH	Technical	7.41	-24.1%
IC	Interpersonal Communication	3.55	-63.7%
ECON	Economic	1.33	-86.4%

Note. Sample Size ($n = 1232$) Like average is 9.77.

For tweets containing only one category, the highest average retweet (see Table 10) was Information – Statistics ($M = 12.38$) and the highest average likes (see Table 11) were in Information – Play-by-Play ($M = 3.61$).

Table 10
Average Retweets When Only One Motivation Category is Present and Departure from Sample Size Average

Code	Category	Average Retweets	+/- vs. Average Sample Size Retweets
IS	Information – Statistics	12.38	227.8%
IA	Information – Analysis	11.25	197.9%
ENT	Entertainment	7.50	98.6%
IEN	Information - External News	4.92	30.2%
IPO	Information - In-Park Observation	2.33	-38.2%
IPBP	Information - Play by Play	1.46	-61.3%
IC	Interpersonal Communication	0.02	-99.5%
CON	Content [^]	0.00	-100.0%
ECON	Economic [^]	0.00	-100.0%
TECH	Technical [^]	0.00	-100.0%

Note. Sample Size ($n = 1232$) retweet average is 3.78.

[^]These categories did not contain any single-coded tweets.

Table 11
Average Likes When Only One Motivation Category is Present and Departure from Sample Size Average

Code	Category	Average Likes	+/- vs. Average Sample Size Likes
IPBP	Information – Play-by-Play Only	3.61	-63.1%
IS	Information – Statistics	2.43	-79.5%
IA	Information – Analysis	2.00	-79.5%
IEN	Information - External News	2.00	-79.5%
IPO	Information - In-Park Observation	2.00	-79.5%
ENT	Entertainment	0.65	-93.4%
CON	Content [^]	0.00	-100.0%
ECON	Economic [^]	0.00	-100.0%
IC	Interpersonal Communication	0.00	-100.0%
TECH	Technical [^]	0.00	-100.0%

Note. Sample Size ($n = 1232$) Like average is 9.77.

[^]These categories did not contain any single-coded tweets.

To provide further insight into RQ2, the data set was evaluated using SPSS to find Partial Eta Squared (see Table 12) to determine the percentage that each motivation contributed to a consumer retweeting or liking a given tweet in the data set. There are many factors in play that determine whether a user retweets or likes of a given tweet (e.g. time of day, emotions, socioeconomic, etc.) that are beyond the scope of this study. However, while the Partial Eta squared numbers seem small, by comparing across categories, we can see which categories are more influential on consumer actions relevant to this study. Among statistically significant findings ($p < .05$), the highest percentage for both retweets and likes came from the Interpersonal Communications category. The study

found that for any given tweet in the data set, Interpersonal Communication accounted for 3.3% of motivation for a retweet and 5.0% of motivation for a like.

Table 12
Influence of Consumer Motivations on Consumers' Likelihood to Engage (Retweet or Like) Tweet

Category	Dependent Variable	Degree of Freedom (df)	Sig. (p-value)	Partial Eta Squared
INFO	Retweet Count	1	.046*	.003
	Favorite Count	1	.009**	.006
IPBP	RetweetCount	1	.000***	.028
	FavoriteCount	1	.000***	.037
IPO	RetweetCount	1	.808	.000
	FavoriteCount	1	.926	.000
IS	RetweetCount	1	.002**	.008
	FavoriteCount	1	.074	.003
IA	RetweetCount	1	.434	.001
	FavoriteCount	1	.000***	.015
IEN	RetweetCount	1	.067	.003
	FavoriteCount	1	.571	.000
ENT	RetweetCount	1	.004**	.007
	FavoriteCount	1	.000***	.032
IC	RetweetCount	1	.000***	.033
	FavoriteCount	1	.000***	.050
ECON	RetweetCount	1	.494	.000
	FavoriteCount	1	.287	.001
CON	RetweetCount	1	.070	.003

	FavoriteCount	1	.828	.000
TECH	RetweetCount	1	.384	.001
	FavoriteCount*	1	.040	.003

*Data is significant (p-value < .05)

** Data is significant (p-value < .01)

*** Data is significant (p-value < .001)

Discussion

The purpose of this research was to explore live-event Twitter coverage by newspaper sports beat reporters. It applies a motivation scale for sports information consumption founded on uses and gratifications theory to assess consumer preferences and explore new ways to engage sports-focused Twitter users. This study examined the way newspaper sports reporters are meeting the desires of sports information consumers on Twitter during games. This effort is intended to offer helpful insights for both current and future newspaper sports reporters' in-game workflow. RQ1 focused on the frequency of live-game tweets from newspaper sports reporters meeting consumer motivations, while RQ2 aimed to measure the engagement of these categorized tweets. This discussion will highlight key findings from the content analysis using three of the most engaging tweets in the set.

“This was awesome.”

The most engaging of all tweets in the data set – by both measures of retweets and likes – belonged to Washington Nationals' beat reporter James Wagner of *The Washington Post* on August 13 during a game in San Francisco versus the Giants. Wagner created a tweet with a link to a video of Adriana Aviles, the four-year-old daughter of Indians' catcher Mike Aviles, throwing out the first pitch of a game in Cleveland versus the New York Yankees. Adriana had been diagnosed with Leukemia earlier in the season. Wagner's text that accompanied the video simply read: “This was awesome” (Wagner, 2015). Despite it containing only three words about a game three time zones away from San Francisco between two teams in a completely different league than the Nationals, the tweet was the most retweeted (253) and most liked (260) of all

tweets in the study. The tweet was coded as Information – External News and Content because it contained a link to a video. While there is clearly an element of human interest here with a story about a young girl fighting cancer, the tweet illustrates a major theme of the study: tweets containing at least some element of content – such as videos, photos, emojis, or links – were retweeted ($M = 10.39$) 175% more often and liked ($M = 18.08$) 85% more often than the average of all tweets in the data set. However, despite the engagement success of this category, only 4% ($n = 49$) of tweets in the data set were categorized as Content. Similarly, tweets containing news/information from outside the current game were retweeted ($M = 8.56$) 127% more often and liked ($M = 14.37$) 47% more often than the average of all tweets in the data set. Once again, despite the increased engagement, Information – External News made up only 5.9% ($n = 73$) of all tweets in the data set. These two categories represent the some of the most glaring instances where the amount of Twitter content produced by newspaper sports beat reporters was inversely related to the return of engagement.

“Gray, Dull, and Doolittle.”

Entertainment, a category for tweets featuring more lighthearted, mostly humorous commentary, was very prominent in the study. It was the fourth-most frequently occurring category, part of at least 17.8% ($n = 215$) of all tweets in the data set. Most notably, it was also the most-liked category with an average of 20.38 per tweet.

The second-most liked tweet in the data set – trailing only the story about Aviles’ daughter – was written by *San Francisco Chronicle* Oakland Athletics’ beat writer Susan Slusser during a September 26 game versus the Giants in Oakland. She wrote:

““A's pitchers of record were Gray, Dull and Doolittle. That's how I'd describe my ex-wife!" said @mercbrownie” (Slusser, 2015).

Clearly there is an element of Entertainment in this tweet. The 17.5% ($n = 215$) of tweets coded as Entertainment had the highest like rate (20.38), more than twice that of the average likes in the data set. This appeal to entertainment, where tweets contained some kind of lighthearted, often humorous undertones, proved to be a success with audiences by the measures of this study.

Slusser’s “Gray, Dull, Doolittle” tweet contained another key element. She quoted *San Jose Mercury News* sports writer Daniel Brown by mentioning his username, @mercbrownie, within the text of the tweet. This allowed the tweet to reach not only Slusser’s 48,200 followers, but also Brown’s approximately 5,900 followers, adding more opportunities for engagement. The inclusion of Brown’s username enabled this tweet to be categorized as Interpersonal Communication, defined as any tweet including a username (i.e. @username) within the text. The basic functionality of Twitter dictates two types Interpersonal Communication tweets: replies and mentions. Replies are tweets that begin with “@username” and only reach those who follow *both* the author of the tweet and the account replied to at the beginning of the mention. Meanwhile, a mention will appear on the timeline of both the user mentioned and the author of the tweet, likely reaching a larger audience (What are replies and mentions?, 2016). Slusser’s inclusion Brown’s username in her tweet allowed it to reach more users than most Interpersonal Communication tweets because of their large following and shared coverage of the same region.

Interpersonal Communication tweets in this study, when analyzed as subcategories of mentions and replies, reveal distinct differences (see Table 13). Of the 165 tweets categorized as Interpersonal Communication (13.4% of data set), only 15 were mentions. These mentions, however, resulted in much higher engagement numbers with average retweets (13.13) 247.4% and average likes (31.0) 217.3% higher than the average for the entire dataset.

However, when Interpersonal Communication tweets are structured as replies, average retweets and average likes fall 62.0% (0.06) and 110.6% (0.81), respectively, below the average of the data set. This is very little engagement. For example, during a September 27 game between the Giants and Athletics, @awagmom's tweeted to Susan Slusser:

“Valenica's attitude stinks!!!” (awagmom, 2015)

Slusser engaged, composing two tweets as part of the exchange. The tweets totaled only one like, most likely attributed to the fact that @awagmom has only five followers and only one follows both Slusser and @awagmom. In other words, this tweet only reached three user timelines.

While engagement can depend greatly on replies or mentions, Interpersonal Communication is among the most influential motivators for consumers. For any given tweet in the data set, Interpersonal Communication was 3.3% of the motivation for retweeting and 5.0% of the motivation for liking, the highest percentage for either category. This relatively high percentage when compared to other categories is worth noting when considering both practical and theoretical implications.

Table 13
Average Retweets and Likes of Mentions and Replies for Interpersonal Communications Motivation Category

Type	# of Tweets (n)	% of Tweets	Average Retweet	Average Likes	+/- vs. Average Sample Size Retweets	+/- vs. Average Sample Size Likes
Interpersonal Communication (IC) - All	165	13.4%	1.25	3.55	-66.9%	-63.7%
IC – Mentions	15	1.2%	13.13	31.0	247.4%	217.3%
IC – Replies	150	12.2%	0.06	0.81	-62.0%	-110.6%

“First Pitch. Grand Slam. Really.”

The majority of tweets – 70.7% ($n = 870$) - were coded as Information – Play-by-Play, meaning they contain basic game outcomes that any consumer could observe on television, radio, or in person. This is not surprising given that all tweets in the study were produced while a game was in progress.

Despite the prominence of play-by-play information in the body of newspaper sports beat reporters’ Twitter activity during games, the engagement with these tweets falls well below average of all tweets included in the study. When play-by-play information is included in any tweet, it is retweeted 30.2% less and liked 24% less than average. The drop is even more dramatic in tweets containing *only* play-by-play results where both retweets and likes are over 60 percent less than the average of tweets in the study. Furthermore, analysis found that Information – Play-by-Play was 2.8% of the motivation for retweeting and 3.7% of motivation for liking. While these motivation figures are relatively higher than that of other categories, based on the frequency of play-

by-play tweets when compared to the engagement figures, the data suggests that newspaper sports beat reporters are spending an disproportionate amount of time tweeting play-by-play action without much return in terms of engagement.

Tweets containing play-by-play information were much more successful when combined with additional information appealing to consumer motivations. For example, another of the most engaging tweets – and the most retweeted Information Play-by-Play tweet in the data set -also contained a strong entertainment element. On September 26, Giants’ rookie outfield Jarrett Parker stepped to the plate in the 8th inning with the bases loaded having already hit two home runs in the game. On the first pitch, Parker hit his third home run of the game – a grand slam – and Andrew Baggarly, the Giants’ beat writer for the Bay Area News Group, tweeted:

“First pitch. Grand slam. Really” (Baggarly, 2015).

This was retweeted 74 times and liked 192 times, ranking it among the engaging in the entire data set. One could speculate that the rarity of the feat was a driving factor behind the engagement; as Baggarly tweeted a moment later: “Jarrett Parker is the first Giant with 3 HRs and 7 RBIs in a game since Willie Mays' 4-homer game in 1961” (Baggarly, 2015).

Parker’s historic home run was a telling moment in this data set. Baggarly’s initial play-by-play tweet, despite having very little actual information, was one of the most engaging, yet consumers, if they were not watching the game in another fashion, would not have known the player, inning, score, or any other pertinent information related to the

home run simply by reading the tweet. It would appear that consumers engaged because of the entertainment motivation, not necessarily information.

Baggarly's follow up tweet, contained no play-by-play information, but rather unique statistical data that highlighted the rarity of the event and its historical relevance. This was categorized as Information – Statistics, which by definition includes tweets relaying deeper, more unique statistics not readily available. Information – Statistics was the most successful category among tweets containing *only* this type of information, tallying an average of 12.38 retweets, a 227.8% jump compared to the entire data set. Interestingly, the average number of likes was 79.5% lower than average for these types of tweets. It was one of only two categories where retweets increased while likes fell below average. The other category was Information – Analysis, where reporters provide their own opinion on the action. For tweets containing only analysis, retweets were 197.9% above average while likes were also 79.5% below average.

Theoretical Implications

This study applied Seo and Green's Motivation Scale for Sport Online Consumption (2008) that is founded in uses and gratifications theory. This scale is the result of several different attempts to measure consumer motivation for sports information, most of which share uses and gratifications as a theoretical grounding. This study extended uses and gratifications to analyze the actions of Twitter users in relation to specific motivations. This technique is somewhat unique in that it is less concerned with the actions of the consumer and more interested in the ways media producers (e.g. newspaper sports beat reporters) are meeting established consumer media uses.

RQ1 served as a starting point for analysis by sorting tweets in the data set into motivation categories established by Seo and Green's (2008) uses-and-gratifications-based MSSOC. These frequencies provided data to determine how often newspaper sports beat reporters' tweets were "hitting" these theoretical targets. RQ2 was concerned with measuring the gratifications within each category using retweets and likes.

Uses and gratifications attempts to explain why consumers actively engage with media (uses) and how these engagements meet particular needs (gratifications). When it comes to Twitter, retweets and likes served here as quantitative measures of this active engagement. For example, retweets and likes may indicate "gratifications obtained," as described in Palmgreen and Rayburn's (1985) uses-and-gratification-based expectancy-value model. More specifically, the actions of retweeting and liking could be interpreted as mainstays of uses and gratification theory, such as establishing one's self within a community, forming identity, confirming beliefs, demonstrating values, and interacting with like-minded individuals (McQuail, 2010, p. 427).

A long-standing pillar of uses and gratifications theory is that media consumption is an active choice (Clavio and Walsh, 2013). This element is at the forefront of this study as both retweets and likes are deliberate consumer actions while using Twitter. Media consumers, by taking these actions, are attempting to establish themselves within a community through, in the case of sports, appeals to fanship and team support (Seo and Green, 2008, p. 104; Witkemper, Lim, and Waldburger, 2012, p. 173). For example, in this study, Information – specifically tweets featuring play-by-play and analysis – was amongst the most motivating factors for retweeting or liking any given tweet. It could be

surmised that this active engagement during games is a way consumers are sharing information, confirming their beliefs, and approving established beliefs within the desired community.

Media consumers attempt to build community through interaction. Twitter's features can encourage community building. In addition to retweets and likes, mentions and replies – two types of Interpersonal Communication – can be used to interact within the community no matter one's status. Data analysis revealed that Interpersonal Communication was the most influential factor in a consumer's decision to retweet or like any given tweet.

Practical Implications

The current study sought to examine live-game Twitter activity of newspaper sports beat reporters to determine how these tweets appeal to motivations determined by Seo and Green's (2008) Motivation Scale for Sport Online Consumption. After reviewing the data and analyzing those findings through the lens of uses and gratifications theory, practical considerations have emerged that may improve the efficiency of newspaper sports beat reporters' in-game workflow and the impact of their work.

The inclusion of content, including photos, videos, links, and even emojis, produced higher rates of engagement. However, reporters face league-mandated restrictions when it comes to the sharing of images or video from the press box. These restrictions are outlined in the 2012-2016 Major League Baseball Collective Bargaining Agreement between the league and the players' association. It states that distribution of images and video during the course of the game are “not authorized or permitted” (Major

League Baseball Collective Bargaining Agreement, 2012, p. 236). These rules are designed to protect official media rights holders, such as major television networks (e.g. ESPN, FOX), from being trumped by other image-relaying entities. Given the rapid increase of social media use since 2012, these policies may be revisited in the forthcoming collective bargaining agreement.

In the mean time, working under the current restrictions, newspaper sport beat reporters should take note of the relative engagement success of content tweets in this study. The most engaging tweet in the entire dataset – Wagner’s tweet containing the Mike Aviles’ video – did not violate MLB rules because it was created and tweeted by MLB Advanced Media, Inc. with full permission for sharing. Wagner just so happened to share it during a live game by adding his own commentary (e.g. “This is awesome.”) rather than simply retweeting (Note: Retweets by reporters were not included in this data set). In addition to MLB-produced video, newspaper sports beat reporters may consider this quoting and retweeting method of fan- or even player-produced photos and videos so long as these actions do not violate league in-game image-sharing rules. Some additional options to bolster the content within tweets may include links to other articles, non-game images, and spreadable, popular visuals, such as emojis, GIF’s, and memes. Newspaper sports beat reporters may consider adding these elements to promote their outlet’s work and add “personality” to their tweets to increase engagement.

When it comes to “personality,” the data revealed that tweets containing personal opinion, analysis, and/or entertaining undertones were more engaging to the audience. Journalists often take a “just-a-facts” approach when reporting, most likely due to their

traditional training. This remains an important element of sports journalism, as evidenced by the constant reminders of “no cheering in the press box,” but adding personality to a tweet can make it stand out from typical game information that users are likely obtaining from other sources such as television, radio, or game attendance. An example of this “personality” is captured in an Andrew Baggarly’s tweet from a September 26 game between the Giants and Athletics: “I was on the Angels beat and covered Barry Zito's MLB debut in 2000. Now get to watch him take the mound in an A's uni again. All the vibes” (Baggarly, 2016). Here, Baggarly adds a unique personal experience (“I was on the Angels beat and covered Barry Zito's MLB debut in 2000. Now get to watch him take the mound in an A's uni again”) and personal feelings (“All the vibes”). This does not violate any kind of journalism ethics and offers consumers exclusive access to the thoughts of a true “insider.” These types of tweets appeal to the audience motivation to be part of a community and obtain information.

In another attempt to build or join a community, consumers often attempt to engage with others through interpersonal communication. On Twitter, this includes user mentions and replies to targeted tweets. This study revealed that despite interpersonal communication being one of the more motivating factors for retweeting or liking any given tweet, raw data suggests that the time and effort that newspaper sports beat reporters are devoting to interpersonal communication is not worth the return of engagement. This is particularly true with direct replies to Twitter users with relatively few followers. During in-game coverage, newspaper sports beat reporters may consider limiting or completely refraining from direct interaction (i.e. replies) with Twitter users. Some alternatives could include pre- or post-game Twitter discussions using a specific

hashtag or a designated time during the week there the reporter answers questions on a video-based social media such as Periscope or Instagram. That said, newspaper sports beat reporters could better utilize Twitter's interactive features by, for instance, including player usernames within their tweets and/or event-related hashtags (i.e.

“@BringerOfRain20 sounded like he missed #Athletics fans a lot when here last month; he'd probably like that they still boo Manny Machado” where @BringerOfRain20 is Toronto Blue Jays' third baseman and 2015 American League Most Valuable Player Josh Donaldson) (Slusser, 2015). By using the interactive features of Twitter more effectively during games, newspaper sports beat reporters can assemble tweets that reach more users, increasing the likelihood of engagement.

Perhaps the most applicable findings of this study emerged in the practice of tweeting play-by-play game outcomes. Literature suggests that current sports beat reporters feel overwhelmed by the perception that they need to “keep up” with all game action while remaining ahead of a growing field of both bloggers and more knowledgeable fans (Jones, 2010; Kindred, 2010). Data from this study revealed that newspaper sports beat reporters tweet play-by-play outcomes were less engaging despite being produced more frequently than any other category.. This could be due in part to the rise of “second-screen viewing” where fans are consuming the game in real time using other media. The basic outcomes are just as available to those following anywhere in the world as they are to those inside the park. However, despite the widespread availability and relatively low engagement numbers, this is certainly not a suggestion to abandon play-by-play tweets. Transmission of this information is still vital, per uses and

gratifications theory, to a sports consumer's desire to obtain information during a game experience.

Rather than eliminating play-by-play tweets, newspaper sports beat reporters may work to enhance these types of tweets. An example of this approach is evident in two tweets from *Baltimore Sun* Orioles' beat writer Dan Connolly. During an August 6 game versus the Athletics, Connolly (2015) tweeted:

“Lawrie homers. 6-2 in T4” (Connolly, 2015).

This tweet did not receive a single retweet or like. There is no additional analysis, information, content, or “personality” here. Anyone consuming the game on any platform or in person could decipher this information.

In contrast, Connolly created a much more engaging tweet on August 3 during a different game between the Orioles and Athletics:

“Caleb Joseph smashes one to left. His ninth homer. Os up 6-0. Game over? Os are 16-2 when Joseph has at least two RBIs in his career” (Connolly, 2015).

This tweet was retweeted 7 times and liked 15 times, both above average compared to the data set. This could be attributed to the inclusion of information beyond just game results, such as analysis/entertainment (i.e. “Game over?”) and deeper statistical information (i.e. “Os are 16-2 when Joseph has at least two RBIs in his career”).

Connolly's (2015) two play-by-play tweets demonstrate how newspaper sports beat reporters might enhance play-by-play tweets to produce engagement. Incorporating elements such as statistics (as Connolly did in the second tweet), analysis, entertainment, and/or content into a play-by-play tweet could provide a deeper, perhaps more engaging consumer experience. Additionally, newspaper sports beat reporters, in an effort to streamline workflow, might consider restricting their game result tweets to major turning points (e.g. scoring plays). However, while further research may reveal more guidance for live-game coverage, the suggestions presented here are believed to be a strong basis for more efficient and effective game coverage by newspaper sports beat reporters who feel they are falling behind in an increasingly digital, fast-paced media economy.

Limitations

As is the case with any examination, this research study faced limitations. Because the data set was composed only of live tweets, it is possible that certain technical malfunctions, such as the complete loss of or poor Internet connectivity, may have altered the Twitter activities of both the subjects (sports newspaper beat reporters) and those wishing to interact (consumers).

This study used retweets and likes as an operational definition of Twitter engagement. This definition continues to evolve. Additional metrics, such as replies, mentions, and number of followers, may also be considered when measuring Twitter engagement (Messner, et. al., 2012; Shively, 2015).

Another factor is the limited scope, as this initial research targets only a collection of tweets from eight reporters over the course of a select number of games between the same four teams in the same two markets. This study is also limited to Major League Baseball, while other sports – both professional and amateur – may yield vastly different results.

To focus more on the original content produced by the reporters, retweets were excluded from this study. Future studies could include retweets from the reporters to measure engagement of all Twitter activity. Some users are simply more likely to retweet than others.

Some oddities and anomalies occurred during the games and amongst the reporters intended to be included in the data set that may have altered Twitter activity and consumer interaction. For example, the Nationals/Orioles game played on September 24 was a previously unscheduled make-up day game after the teams were rained out on September 21. This change could have influenced the audience and the way reporters covered the game. In another change, *San Francisco Chronicle* reporter Hank Schulman relinquished his duties as Giants' beat reporter in August due to an illness and was replaced by Bruce Jenkins. Schulman was well established among Giants' fans and has significantly more followers than Jenkins. This could have had a major impact on the results.

Future Research

This study was intended to have both scholarly and practical implications. The findings may lead to additional opportunities for research. First, conducting similar studies for different sports at different skill levels would be worthwhile in establishing practical guidelines for reporters. For example, basketball and baseball move at a much different pace, resulting in a difference in reporting. There are also many differences between professional and amateur sports. Future research might examine the in-game social media activity of reporters covering high school sports, for example. There is likely no “second screen” factor here, so play-by-play results – just to name one motivation category – might be engaged with very differently.

This study focused very heavily on how the work of the reporters fulfilled the pre-determined motivations of the audience. Future research might consider surveying the consumers to assess their reasoning for engaging with particular types of in-game tweets.

Given the results of this study, it would also be worthwhile to explore the value of Twitter engagement as it relates to media outlets, particularly newspapers. For example, is a consumer who engages with a reporter on Twitter during a live game more likely to subscribe to that newspaper? Do these Twitter engagements translate into other benefits for the reporters’ outlets? These are critical questions that could be assessed in future research to evaluate the impact of this type of coverage.

Lastly, this type of study could be replicated for beat reporters outside of sports, including politics, crime, and health beats, to name a few. These areas often feature live events that could serve as platforms for similar analysis.

Conclusions

This study aimed to provide newspaper sports beat reporters with insights to improve their workflow and use of Twitter during live-game coverage. The data and ensuing analysis has revealed some key conclusions. First, tweeting simple play-by-play outcomes during live game events does not yield heavy consumer engagement. In contrast, tweets featuring play-by-play results are more engaging when they include additional analysis or context. Secondly, while Twitter is an excellent tool for interacting with consumers, newspaper sports beat reporters might consider limiting replying to direct tweets during the game as they offer fewer opportunities for engagement. Lastly, when possible and appropriate, newspaper sports beat reporters should consider adding content such as links or images to in-game tweets as they tend to be more engaging for consumers.

Bridging the research to practice was central to the motivations for executing this study. Newspaper sports beat reporters, as previously mentioned, remain critical to newspaper sports coverage (Tewksbury, 2003). Their “insider” perspective and exclusive access to teams and organizations extend far beyond that of bloggers or average fans. By reviewing and applying these findings, newspaper sports beat reporters may improve their craft, revise their in-game workflow, and perhaps even garner increased readership and brand loyalty for both new and existing consumers.

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Appendix A Code Book

Read each tweet in the Excel spreadsheet. Identify the following elements of each tweet using either 0 for “not present” or a 1 for “present”. Multiple elements can be present in a single tweet.

1. IPBP: Information - Play-by-Play
 - a. *Description*: Any basic information or observations available to a live-game audience watching on television, listening on radio, or attending the game, such as balls/strikes, scoring plays, pitch counts, pitch speeds, etc.
 - b. *Examples*: “Ruth homers here in the 5th inning. Yankees lead 1-0”; “Koufax reaches 100 pitches here in the 8th inning”; “Manager Alston congratulates Koufax in the dugout with a handshake”
2. IPO: Information – In-Park Observation
 - a. *Description*: Any information or observations available to those physically present in the venue and/or press box that are not part of the play-by-play (IPBP) category.
 - b. *Examples*: “That was one of the most rousing national anthem performances so far this year”; “And now the fans are chanting, “KOU-FAX, KOU-FAX” as he takes the mound”
3. IS: Information - Statistics
 - a. *Description*: Any numerical information outside the scope of readily available play-by-play results.
 - b. *Examples*: “That was Babe Ruth’s 9th homer in his last 8 games”; “For the first time this year, Koufax will not pitch into the ninth inning”
4. IA: Information - Analysis
 - a. *Description*: Opinion-based statements or predictions from the writer.
 - b. *Examples*: “Can’t believe Ruth saw a fastball on an 0-2 count”; “It appears that Koufax is losing his stamina here”
5. IEN: Information – External News
 - a. *Description*: Any information on sports or non-sports stories originating outside the live event being covered.
 - b. *Examples*: “The Yankees have called up their star prospect”; “Rumors swirling on the West Coast that Lasorda will be fired”
6. ENT: Entertainment
 - a. *Description*: Game or non-game-related statements that are more light-hearted, perhaps humorous, in nature that aim “to have fun through” Twitter.
 - b. *Examples*: “It’s been a four-bourbon kind of day for this Red Sox pitcher”; “I had a full head of hair when this game began”
7. IC: Interpersonal Communication
 - a. *Description*: Any tweet that contains a username, a.k.a. mention (@username), including replies. Please make note of the following:

- i. This does not include retweets or tweets where hashtags are the only Twitter interconnectivity feature used.
 - ii. Replies should be categorized based on content. In other words, in addition to being designated as “Interpersonal Communication,” the tweet should be marked in at least one other category. View the original tweet in Column U of the spreadsheets to understand context and then categorize based on content.
 - b. *Examples:* “What an unbelievable day for @BabeRuth!”; “@KoufaxFan I never said he wasn’t the best!”
- 8. ECON: Economic
 - a. *Description:* Any tweet containing information on promotions or purchasing opportunities.
 - b. *Examples:* “The first 10,000 fans received Babe Ruth bobbleheads tonight”; “Read my new book about Sandy Koufax. #shamelessplug”
- 9. CON: Content
 - a. *Description:* Any tweet containing non-textual content or links, including but not limited to photos, videos, and/or emojis.
 - b. *Examples:* “Link to story about Koufax’s curve ball bit.ly/ladod”
- 10. TECH: Technical Knowledge
 - a. *Description:* Any tweet referencing techniques, rules, and/or strategies related to the game.
 - b. *Examples:* “Willie Mays uses his glove to block the sun on a pop up”; “You cannot review a called third strike”; “2-2 count – might be a good time for a hit and run”