

1-1-2014

Understanding Baseball Consumption Via In-Home Gaming

Joey Gawrysiak

Brendan Dwyer

Rick Burton

Follow this and additional works at: <https://trace.tennessee.edu/jasm>

Recommended Citation

Gawrysiak, Joey; Dwyer, Brendan; and Burton, Rick (2014) "Understanding Baseball Consumption Via In-Home Gaming," *Journal of Applied Sport Management*. Vol. 6 : Iss. 3.

Available at: <https://trace.tennessee.edu/jasm/vol6/iss3/9>

This article is brought to you freely and openly by Volunteer, Open-access, Library-hosted Journals (VOL Journals), published in partnership with The University of Tennessee (UT) University Libraries. This article has been accepted for inclusion in *Journal of Applied Sport Management* by an authorized editor. For more information, please visit <https://trace.tennessee.edu/jasm>.

Understanding Baseball Consumption Via In-Home Gaming

Joey Gawrysiak
Brendan Dwyer
Richard Burton

Abstract

Baseball in-home gaming has evolved and expanded from the age of wooden table-top or cardboard games with spinners and/or dice to the advent of electronic gaming via analytically advanced fantasy baseball leagues and baseball video games. Video games, a new form of social media, are now a multibillion-dollar a year industry in the United States with children, teens, and adults spending significant portions of time playing video simulations of baseball. Baseball video games have consistently evolved to offer highly realistic graphics including visuals and sounds that encourage modern in-home gamers to spend longer times playing. This work aims to shed light on the growing trend of baseball video game popularity, along with technological increases in fantasy baseball gaming, and whether or not these advances are seen as positive or negative for professional baseball in terms of baseball fan avidity and traditional sport consumption. Conclusions drawn appear to show that in-home games are good for baseball and the stadium product. This is an under researched area and one that suggests serious need for additional attention. Practitioners may use this information to effectively shape their sales and marketing practices based on the implications of advanced technology in fantasy baseball and baseball video games.

Keywords: *technology; baseball gaming; video games; fantasy leagues*

Joey Gawrysiak is an assistant professor of sport management at Shenandoah University.

Brendan Dwyer is the director of research and distance learning in the Center for Sport Leadership at Virginia Commonwealth University.

Richard Burton is professor of sport management at Syracuse University and a visiting professor at FH Kufstein Tirol University in Kufstein, Austria.

The authors wish to thank Syracuse University sport management graduate student Chari Bayanker for invaluable assistance on research components used in this paper.

Please send correspondence regarding this article to Joey Gawrysiak, jgawrysi@su.edu

Introduction

While baseball was first designed as a recreational pursuit more than 150 years ago to get Americans outdoors and exercising, Major League Baseball (MLB) has seen the development of numerous virtual baseball concepts that may be contributing to a more sedentary lifestyle and could impact attendance for MLB and its member clubs (Burns & Novick, 1994). Baseball simulation gaming, in the form of wooden tabletop games, has been around since 1866 (Burton, 2013) but the “toys” of the 19th and 20th century have given way to technological advances that have supported the rise of electronic fantasy leagues and graphically-rich video games (Burton, Hall, & Paul, 2013). The creation of Parlor Base Ball in 1866 reveals that just as baseball was catching on, the stadium game form was important enough to initiate and sustain the invention of an in-home form. That explains (in part) why hundreds of baseball board games were invented over the next 100 years and why thousands of fantasy and video game initiatives now exist. This paper aims to shed light on the growing trend of baseball gaming, especially in looking at technological advances in baseball video and fantasy games as a source of entertainment, and the impact these game forms may have on traditional sport consumption and fan avidity. By exploring the evolution of the gaming experiences, from table-top constructions to fantasy baseball and baseball video games, we may assist future practitioners in understanding fan engagement, live game consumption, and challenges created by unintended brand extensions. In addition we hope to fill a gap in the sport management literature dealing with the possible impacts of technology and non-traditional forms of sport consumption.

While there has been limited research done on the history and development of “in-home” gaming, Burton et al. (2013) noted that with the growth of baseball’s appeal across the late 19th century, various forms of baseball-themed entertainment began to appear. This consumerism included the aforementioned baseball board games such as Parlor Base Ball but also baseball trading cards (inserted in packages of cigarettes), vaudeville recitations (i.e., *Casey at the Bat*), popular songs (i.e., “Slide Kelly Slide”), baseball-themed literature (i.e., Mark Twain’s famed novel *A Connecticut Yankee in King Arthur’s Court* features knights playing baseball), and the development of sports sections in newspapers. Given a nearly 100-year gestation period, it is not surprising that by 1960, a Harvard professor named Bill Gamson had developed “a multi-player fantasy game prototype” where avid baseball fans could act as team owners and construct their own teams using actual baseball data/statistics (Allis, 2006; Burton et al., 2013).

Researchers have consistently acknowledged a link between sports fans and the revenues they generate in the sports industry. This is particularly evident with professional team sports where spectator attendance plays a key role in revenues derived from broadcast rights, sponsorship, merchandise sales and premium ticket sales. According to DeSarbo and Madrigal (2011), “like any business [the sports industry] depends principally on its most loyal and dedicated consumers/

sports fans.” Citing Syracuse (2008, p. 1), DeSarbo and Madrigal (2011) provide a definition for this target group noting that “avid fans are those that have an emotional connection to the game—people whose interest, enthusiasm, and passion for the product defy the norm. From a marketing standpoint, these individuals are dream customers because they are eager consumers of all things associated with the sport.”

There is limited data on the practical implications of fantasy and video gaming, especially in regard to traditional sport consumption and economic impacts. Baechler (2011) forms interesting context in quoting Aaron Dignan, author of *Game Frame: Using Games as a Strategy for Success*, when she included these observations from Dignan’s (2011) text: “Games give us information about our developing skills in the form of real-time feedback, points [and] leaderboards. [We now] have a culture of gamers who are obsessed with leveling up in every aspect of their lives” (p. 4). Baechler (2011) amplifies this point by citing another game-focused author, Jesse Schell by observing, “games are on the verge of transforming the way people work and learn in the same ways they already change consumer behavior (e.g., points, miles, badges)” (p. 5).

Robinson (2011) suggests games are relevant in society because they produce “a quick source of energy and enthusiasm” and that “researchers have found play increases positive mood, reduces stress, increases risk-taking, and changes the mental set” (p. 9). Perhaps more compelling is Robinson’s (2011) belief that “the interactive nature of games create more involvement and, as a result, more retention of knowledge” (p. 9). Further, “humans are thought to retain 90% of what we do but only 20% of what we hear and 30% of what we see” (Robinson, 2011, p. 9). In short, gaming may, when associated with a product like professional baseball, influence retention of statistical data and generate positive feelings about the game form or the league, its teams, or star players.

However, with baseball video games standing as a relatively new invention, it is difficult to present relevant findings and implication revolving around these ideas. Contemporary video games come equipped with access to social media outlets such as Twitter and Facebook as well as allowing users to engage in social settings as they play these games. Internet connections to home consoles give players access to other global competitors and allow direct interaction through the game play and microphones. These elements have turned console video game systems into a new form of social media, one that practitioners must understand to better meet revenue demands made by team owners.

The purpose of this paper is to alert researchers and practitioners to advancements in baseball gaming as possible gateways or deterrents of traditional sport consumption in order to spur more research in this area, and to act as an extension of the work presented by Kim, Walsh, and Ross (2008) as they call for additional work to be done in particular sport video games. Currently, the correlation between baseball gaming and traditional sport consumption is unknown as there

has been little to no research done specifically on baseball gaming. This work is conceptual with intent to better define the landscape of modern baseball gaming, as well as to identify the sphere of technological enhancements in baseball video games and their impact on traditional baseball consumption. Making various professional sport institutions aware of possible derivatives baseball video games and fantasy leagues have may well benefit baseball executives, media outlets, and technology developers, especially those seeking effective sales practices tied to advertising, sponsorship, and ticket sales.

Several studies have looked at brand awareness/extension and other marketing components through sport video games to reach consumers (Cianfrone, Zhang, & Trail, & Lutz, 2008; Clavio & Kraft, & Pedersen, 2009; Walsh, Zimmerman, & Clavio, 2013). While these studies are important in understanding marketing efforts and brand extension through sport video games, few studies have been done in looking at consumptive behaviors as a direct result of playing specific sport video games. Kim, Walsh, and Ross (2008) found that sport video gamers tend to be sport fans but that they may not be content with real-life sporting experiences, so they need an additional means of consumption. Magnusen and Kim (2009) further purport that sport video games may act as an additional means of sport attachment and that these games seem to impact consumptive behaviors, especially through sport team identification. This paper extends the thoughts of these previous works by focusing on baseball sport video games as a means of baseball gaming and non-traditional sport consumption. This work will further expand on the evolution of baseball gaming and use it as a means of exploring future implications. These implications have been found have a positive correlation thus far in the literature, but this work will acknowledge the potential for negative correlations in sport video game/fantasy play and consumer behavior. To expand on this thought, this work examines if someone could become such an avid fan of a baseball video game or baseball fantasy league that it would diminish his or her avidity for the actual MLB product. Said another way, does video game/fantasy sport avidity automatically benefit the core product (MLB or the Yankees)?

For the purpose of this article, traditional consumption refers to event attendance, viewing an event through some form of media, and/or sport participation. Participation is included because participating in a sport requires some form of consumption of that sport product such as equipment and understanding. Sport, as a unique product, can be simultaneously produced and consumed at the exact same time, with consumption often ending as participation ends or shifting from playing the sport to engaging in it as a spectator. Baseball gaming is defined here as interactive baseball simulations with a baseball theme. Fantasy baseball and baseball video games are included in this term, although are different from each other. Fantasy baseball refers to creating a team of actual players and acting as a general manager in order to compete against other managers in a simulated league based on real statistics. Baseball video games are simulations through various con-

soles that mimic a live game with the user controlling the game and actions of the players.

Technology Landscape

The Fantasy Sports Trade Association (FSTA, 2014) has suggested more than 33 million Americans are currently involved with some form of fantasy sport participation and spend in excess of \$3.5 billion annually for their entry into leagues or acquisition of real-life players for fantasy teams (Dwyer, 2013). Likewise, video games have become ingrained in the American culture. With a technological generation booming, this is an era where adults, teenagers, and children have access to and familiarity with technological resources (Reeves, 2012). Video game home consoles became available in the late 1970s with a significant increase in popularity and usage of various games taking place in the 1990s. Contemporary adults growing up in that era were exposed to these games as part of their socialization experiences, so they understand and hold avidity towards gaming. Video games are now a source of social reproduction and socialization in America where the value and interest of playing video games is imparted from adult to children through interactions and experience (Bourdieu & Passerson, 1977). Growing up in the 1980s and 1990s, these adults grew this passion and avidity for video games as a source of entertainment and socialization, thus developing them as part of their values and activity norms. By sharing these ideas, video games have been able to capitalize on an ever-growing population of gamers for all types of games. It is important to see this socialization connection in order to address the potential impact it may cause on traditional forms of sport consumption. Robinson (2011) has suggested “games extract us from spectator mode and promote the hands-on learning that comes with the participant experience” (p. 9). Thus, the more video games, a form of non-traditional sport consumption, are passed down and valued, the more potential impact they may have on traditional stadium or arena-based sport enterprises.

Technology has been increasing seemingly exponentially over the past 20 years to be faster, more immersive, and accessible (Woods, 2011). Video game consoles have grown from the Atari 2600 in the 1970s to various consoles including the Xbox, Playstation, and Wii today. The next generation consoles will be considered the 8th Generation consoles and are set to advance technology and increase accessibility and immersion even more than current consoles. While the scope of this paper does not include an exhaustive examination of the technology field, it is appropriate to develop a context to place baseball video games in the current sphere of American society.

Youth in America today spend an average of 5.5 hours of screen time per day, showing the importance that today’s younger generation places on entertainment and technology (Woods, 2011; Cauchon, 2005). Screen time includes any time spent in front a television, a computer, or even mobile devices such as phones or

iPads. This further illustrates the importance video games have, and will have, on the impressions of the future of the country, including the sport landscape.

Video games have grown in such popularity that professional video game leagues have developed and flourished. Major League Gaming (MLG) grew 334% in 2012 and is widely considered the leader in video game tournaments and professional play (Major League Gaming Facts, 2013). MLG has further shown that nearly 12 million unique online viewers watched professional tournaments over the course of a weekend showing the increasing popularity and viewership of gaming tournaments and events (MLG Facts, 2013). With this increase in professional gaming, more youth are committing their time toward becoming experts in various video games. Sport video games are gaining traction in this arena, with *FIFA* and *Madden* football games currently leading the way.

The video game industry, worth \$20.77 billion in 2012 in America, thrives each year and is on par with other major industries (Entertainment Software Association, 2013). There is little reason to believe this figure will drop, as the new generation of home consoles should strengthen the industry (Szalai, 2012). It is a growing industry with revenues expected to climb to more than \$70 billion by 2015 (Entertainment Software Association, 2013). This foreseeable increase in video game revenue, especially worldwide, coupled with the growth of fantasy gaming (11.7% increase each year over the last five years) emphasizes the importance consumers place on technology and non-traditional forms of sport consumption (Weissmann, 2013). The video game and technology landscape appears stronger than ever and likely to influence other areas of society such as corporate training, educational initiatives and employee performance tracking (Baechler, 2011).

With video games gaining popularity and being a stable force in the global and national marketplace, MLB practitioners should understand possible implications in order to more effectively operate their in-person attendance business. When targeting younger generations, a key demographic for sport marketers, sport professionals may well appeal to this audience through techniques in game-themed advertising or through actual game-based promotions. Developing gaming areas in sport facilities may also provide an incentive for game attendance, mirroring the use of fantasy lounges at some NFL stadiums. Understanding video games, including baseball games, as a means of new social media may spur product awareness, product trial, and in-person attendance.

Gaming as a Means of Additional Sport Consumption and Brand Expansion

Gaming, whether cardboard derivatives or digital/electronic, serves as a means of additional, though non-traditional, sport consumption opportunities because the game form exposes potential users to aspects of the sport at times when they may not otherwise be engaged. Television, Internet, and print media all serve as sources where fans can consume information about sports, especially those they are interested in or identify. Gaming can thus be used in this same measure by allowing users to interactively participate in different versions of whatever sport

the game is themed, such as baseball. These games give users the chance to play as a certain team or star player in a simulated event in which the user can compete or play casually. This additional sport consumption may aid in developing sport familiarity or in developing avidity for that sport, team, and/or player. Officially licensed baseball games include the names of actual professional baseball players, teams, stadiums, and events. Exposure to any and all of these entities occurs every time the baseball video game is played and logically adds to the amount of identification time the fan or consumer spends with them.

Major League Baseball is able to spread its brand through the use of various forms of baseball gaming. Video games provide logos and emotional connections to the viewer through the gaming experience. By playing baseball video games, users are exposed to the MLB logo throughout interactions and experiences within the game. This phenomenon is similar to the brand image transfer that occurs between sponsors and the event for which they are sponsoring. Keller (1993) defined a brand image as “perceptions about a brand as reflected by the brand associations held in memory” (p. 3). These associations are developed through a variety of sources including lived experiences such as gaming and can be linked with other attributes such as celebrities and sporting events (Gwinner & Eaton, 1999). In this case, by having an enjoyable video game experience, the user can develop avidity towards baseball, enhancing and spreading the MLB brand through association. Video game users may not necessarily watch or follow professional baseball, but through baseball video games, the MLB brand is spread to them.

Understanding fan motives and having a cultural awareness of fan motivations for sport consumption can lead sport marketers to develop more effective marketing and advertising campaigns (Ha, Ha, & Han, 2013; Wann, Grieve, & Zapalac, 2008). By looking into how baseball video games impact video game users and baseball consumption, sport marketers may be able to develop marketing campaigns more effectively. Similarities exist between video game and baseball consumers. Children and young adults, consumers with disposable income, and males are targets for both industries. Sport marketers may be able to create efficient marketing campaigns by understanding the baseball and video game cultures as well as fan motivations.

Fantasy Gaming's Impact

Contrary to popular belief, fantasy sports did not begin in 1980 in a small New York City restaurant called “La Rotisserie.” The activity's roots in fact go as far back as the 1950s (Wadlington, 2013). However, it was in NYC where the modern version of the fantasy game began, and it began most comprehensively with baseball. On premise, the “La Rotisserie” league established a game with rules as similar as possible to the real game. The idea was that “owners” would draft a team of real professional baseball players and follow the statistical output of these players throughout an ongoing season. Teams with the best statistical output would win the league. And while the Rotisserie name has stuck around for more than 30

years, most of the rules and processes established at the original “La Rotisserie” meeting have changed greatly as fantasy baseball transformed from niche hobby to national pastime for millions of sports fans.

In the early 1980s, personal computers were just being developed. This means seamless access to statistics and real-time analysis was nearly 20 years in the future. Thus, game box scores from the newspaper, a calculator, a phone and the U.S. mail system (or fax machines) were the technologies used to play fantasy baseball. However, the amount of time and level of detail required to participate in the activity prior to the rapid adoption of the Internet (mid-1990s) attracted primarily only journalists, statistical enthusiasts, professors, or highly identified baseball fans. As barriers to information were lowered in the late 1990s, fantasy gaming popularity took off and in doing so created a multibillion-dollar industry with far-reaching ramifications related to sport marketing, fan behavior, and gambling. Tied to these advancements, baseball saw an increase in the appeal of new forms of statistical analytics, much in part to the book *Moneyball*, a work that outlined new ways of analyzing statistics to formulate baseball teams from the Oakland Athletics (Lewis, 2003). These analytics increased the scope and popularity of fantasy sports, especially fantasy baseball.

As mentioned above, FSTA (2014) currently estimates that more than 33-million individuals play fantasy sports in the U.S. and Canada. In addition, it is estimated that \$800 million is spent annually directly on fantasy sports products and services while an additional \$3.5 billion is spent on related media products and services (FSTA, 2008). In 2007, FSTA estimated more than nine million individuals participated in fantasy baseball. This number has most certainly grown in concert with the overall fantasy sports explosion during the past six years. It is not just the sheer number of participants that is important, but also the type of participant catching the attention of sport marketers, league managers and broadcast providers.

From a demographic perspective, the typical fantasy participant is male, between the ages of 18 to 45, with a college degree and an above-average household income (Van Riper, 2008). The average fantasy participant has played for approximately 10 years, owns six teams, and spends approximately \$500 annually on fantasy-related products and services (FSTA, 2008). It is estimated two-thirds of participants spend five hours per week managing their fantasy teams with 33% spending more than 10 hours (Levy, 2005). Lastly, and perhaps most importantly for this paper, Ipsos Public Affairs (as cited by Fisher, 2008) found fantasy participants not only outconsume the general population as it relates to the major product and service categories, but also outpace the average sport fan with regard to spending habits. This finding may play a significant part in understanding how new forms of non-traditional baseball consumption, specifically video games, influence traditional consumption.

Most of the previous research related to motives for fantasy sport participation has been limited to fantasy football. Researchers Dwyer and Kim (2011), Farquhar and Meeds (2007), and Spinda and Haridakis (2008) each developed motivational scales or player typologies for football participation. Each scale or typology has one or two unique features, but for the most part it was confirmed that the activity is a site wherein participants seek to satisfy enhanced sport fandom desires such as social interaction, competition, arousal, knowledge acquisition, entertainment, and diversion. In 2011, Dwyer, Shapiro, and Drayer extended the football scales to MLB baseball and found participants were primarily motivated by the social interaction, competition, and the entertainment aspects of fantasy baseball. Interestingly, a small number were motivated by opportunity to win money and a primary difference from football was lack of diversionary aspects associated with activity. In other words, fantasy baseball participants appear to appreciate the work associated with playing the activity. While fantasy baseball participants are somewhat similar to their fantasy football counterparts, the Dwyer, Shapiro, and Drayer (2011) results suggest the work associated in participating is a significant difference between the two activities, as fantasy baseball requires much more time invested and attention to detail.

From an attitudinal perspective, research on fantasy sport participants suggests users are generally highly-identified team or sport fans that have harnessed their interest into fantasy (Dwyer & Drayer, 2010; Dwyer, 2011). Control is another attitudinal component/motive that has gained traction among researchers (Drayer, Dwyer, & Shapiro, 2013; Mahan, Drayer, & Sparvero, 2012). In particular, it appears the interactive nature of fantasy sport provides the participant an added benefit to professional sport consumption. Avid fans want to be engaged, not sit passively and contemporary fantasy sport provides vehicles to actively compete and more fully interact with professional sport (Shipman, 2001).

Fantasy Sport's Impact on Traditional Consumption

Fantasy users spend a good deal of time each day online engaged with their team and follow their fantasy teams across multiple formats (e.g., TV, Internet, iPad, cell phone, radio, and newspaper). Thus, it is not surprising fantasy participants tend to watch more sports on television and spend more money attending sporting events (Nesbitt & King, 2010a; 2010b). In fact, fantasy participants attend 57% more live events and watch 35% more games on television per year (Vlahos, 2014). However, Dwyer (2011; 2013) found a disconnect between a fantasy participant's intention to watch his/her favorite professional team and the actual behavior of doing so. In other words, while fantasy participants are consuming more professional sport than ever, it appears they are consuming their fantasy players' performances at the expense of their favorite local team's games. Several factors exist to explain this phenomenon such as the abundance of mediated sport available each day, the notion of controlled action as opposed to passive fandom and social capital at stake when competing against friends and family. Regard-

less, stakeholders ranging from league commissioners to bloggers and academic researchers to team marketing directors have posited that fantasy sports and the media consumption associated with it may have a detrimental impact on traditional team fandom.

Dwyer and LeCrom (2013) uncovered a few more potential challenges of fantasy participation as it relates to traditional sport fandom and technological advances. In particular, the pair found that participants, (1) have a shallow depth of interest in individual players and treat them more like stocks than heroes, (2) exhibit a cognitive dissonance between fantasy team goals and favorite team values so much so they experience uncomfortable levels of stress during games, and (3) display very little interest in traditional game outcomes because of fixation on individual player statistics.

Another interesting challenge posed by fantasy sport participation is the impact on game attendance. Technological advances in the past decade have greatly enhanced the in-home viewing experience. While this advancement is not directly associated with fantasy sports, it has an indirect outcome as participants have access to numerous high-quality television broadcasts, highlight shows, and most importantly, high speed Internet connections. One premise of fantasy sports that enhanced its popularity was the notion of real-time data updates. Participants want to see their fantasy score change as players perform, and while technological advances have created several products and services to enhance the sport experience, it has not yet fully solved Wi-Fi issues in large stadiums.

How Practitioners Have Adjusted to Fantasy Sports

Retrofitting Wi-Fi to an older stadium is a challenge given the size, dimensions, and physical composition of most stadia (i.e., concrete). Some organizations have retrofitted, some have given up, and others are starting from scratch. Organizations like the San Francisco 49ers and Minnesota Vikings are in the process of building new, multi-billion dollar home stadiums and a highly-promoted attribute of both structures is the blanket presence of accessible Wi-Fi (Hoge, 2013; Nelson, 2013). In general, the NFL has been much quicker to address this issue as their attendance drop has been widely publicized. For instance, the Jacksonville Jaguars created a fantasy lounge for fans in-stadium and are considering showing the NFL Red Zone channel on the stadium's video board during Jaguar home contests (Florio, 2013; Gardner, 2013).

MLB has certainly embraced fantasy sport participation as a valuable asset and created an entity that is tops in the sport industry to support it, Major League Baseball Advanced Media (MLBAM). However, MLB may have to follow the lead of the NFL when it comes to the in-stadium experience. Today, fantasy football is more popular than fantasy baseball and the number of games available for baseball fans dwarf the number of NFL games, so demand is automatically higher for NFL viewership. Regardless, Nesbitt and King (2010a) found a direct relationship between fantasy participation and attendance. Thus, keeping this group connect-

ed in stadiums may help combat decreasing attendance figures for selected MLB teams.

Baseball Video Games' Impact

The future of in-home gaming will continue to grow as video games and fantasy sports gain acceptance in American culture. This current generation of video game systems sold more than 300 million consoles worldwide and experts at leading video game manufacturers predict the next generation consoles, the Xbox One and Playstation 4, to top those numbers (Helgeson, 2013). Sport video games are amongst the most popular games in the world with *FIFA 14* as the third highest in sales with more than \$8 million for 2013 (Lumby, 2013).

Baseball video games have existed for 30 years and continue to evolve in the ever-changing virtual world of video games (Tylicki, 2012). Advances in technology have allowed baseball games to progress from pixelated figures on a green backdrop barely resembling a baseball field to life-like gameplay and visuals that blur the line between watching a game on television and playing a game on a video console. The sights and sounds of current games are not the only aspects that make these games more immersive and attract people. These advances have made games not only more realistic in many regards, but also more fun for users, thus maximizing sales and consumption. The most current baseball game (and arguably the most popular), *MLB: The Show 13* even has a tag line of "So real, it's unreal," demonstrating just how important realism is to developers, marketers, and consumers.

With the advancements in technology and evolution of baseball video games now looking as lifelike as possible, there are implications that did not exist with previous games that did not resemble a real televised MLB game. Possible research agendas may emerge from looking at how contemporary baseball gaming impacts avidity and consumption include determining whether in-home gaming increases/impedes interest and/or participation. Interest refers to attending or viewing an event, while participation refers to actually playing baseball, both making up traditional consumption.

Do Baseball Video Games Increase Interest?

Baseball video games allow for an additional means of baseball engagement, one that can be accessed and consumed 24 hours a day, 365 days a year. This additional consumption could translate into complimentary baseball exposure that builds interest in MLB. A baseball video gamer can play using their favorite team or select the team of their favorite player. This may lead to increased interest in that team or player because of the additional exposure provided by in-home gaming. This interest may then lead to increased consumption of MLB games.

For those users who do not have a self-identified favorite team or player, playing a baseball video game like *MLB: The Show* might foster an appreciation for the game and make the individual want to attend an actual baseball game. Success in

the baseball video game may lead to more of an interest and the possibility of the user becoming more of a fan because success in video games fosters more enjoyment and increases the chances for continued participation (Rigby & Ryan, 2011).

Economically, increasing interest in baseball through video games may lead to MLB encouraging the advancement and incorporation of these games by their member clubs. An increase in interest can lead to more viewers and increased ratings, more attendance and increased revenue generated in gate receipts, or to more merchandise sales. Increasing interest in baseball through video games could lead to an increase in the value baseball holds in society and broadcast revenue market share (See Figure 1). The five leagues chosen in the graph represent the most successful sports leagues in the United States. It shows how powerful sport is on television because these leagues consistently sign lucrative deals. Sport provides engaging content that captivates fans and creates an opportunity for advertisers to reach their target audience.

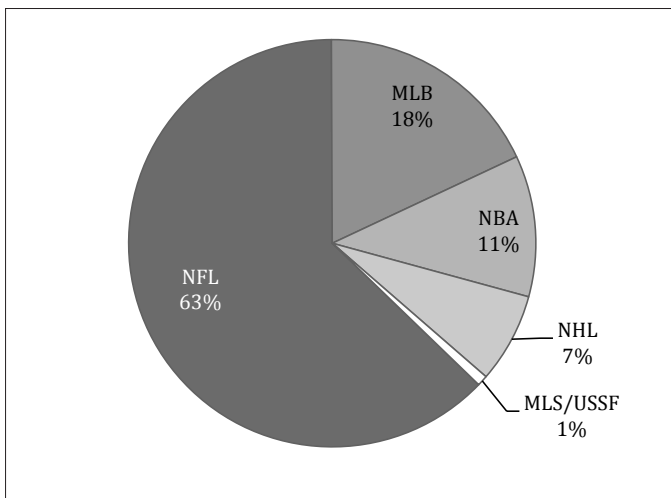


Figure 1. Annual market share of television rights for American Sport Leagues (Ozanian, 2012; MLB, 2012; Crupi, 2011; Botta, 2013; Rosen, 2013; “New MLS TV Deal”, 2014).

Do Baseball Video Games Impede Interest?

Continued research may find that video games impede interest in baseball. Having unlimited access to baseball video games may create an interest in the baseball video game but not necessarily in MLB itself. The video game user may develop an interest in virtual players or teams but that knowledge or appreciation may not transfer into MLB consumption. Also, a negative experience in the baseball video game could lead to disinterest in real baseball. Losing a game, not having fun in the game, a negative experience in online play or having the game

not work properly may all spur disinterest in the sport and MLB. In this regard, it might behoove MLB to partner and provide resources for game developers to make the in-home game the best possible experience.

This idea of whether or not interest will increase may hinge on the interest level in baseball before the video game is played. Thus, users who begin playing a video game who already identify with a specific team, player, and/or baseball itself may not be swayed to turn away from baseball just because of a bad baseball video game experience. Their interest might, however, grow if they have a good baseball video game experience. Those video game users that do not identify with baseball or any part of it can be seen as an opportunistic chance for MLB to grow and expand its product. The video game experience may act against this in various ways. If the game is a good and exciting video game, the user may not see a need to develop an interest in actual baseball because he/she can just play the baseball video game and become an active participant controlling his/her own destiny in the game (Rigby & Ryan, 2011). Why would new users need to watch baseball or get a baseball “fix” when they can boot up the video game and do whatever they want whenever they want? This is an important research aspect that may show that baseball video games impede traditional consumption.

Do Baseball Video Games Increase Participation?

Baseball video games may not only impact the interest level of users, but may also impact participation patterns. This aspect, much like interest levels, may depend on participation patterns of users before they start playing the video games. Baseball video games had an impact on the Milwaukee Brewers’ Ryan Braun by complementing his interest and passion for baseball (Tylicki, 2012). Playing baseball video games might be a way of increasing the number and duration of participation in actual baseball, both organized and “sandlot” style. By playing these video games, users may develop an interest in the game and certain players, leading them to mimic and try to play like the virtual players in the game. The player created in a video game might hit home runs, so that user may want to go and swing for the fences himself. The created player might be fast and steal bases, so the user might want to try to emulate those actions in real life. In this instance, virtual players, either created or programmed in, act as role models for the user to mimic similar to the influence real baseball players are thought to generate. Similarly, how much fun the user has playing the game is a factor that depends on the game itself. Fun is a relative term here, but the more fun and more sustained usage of the video game by the user, the possibility for playing the game in a real form may exist.

Baseball video games, like other sport video games, may transfer knowledge of the sport to the user that potentially moves the user to play in real life. Rules, strategy, and history are all aspects of baseball that can be taught to the user simply by playing the video game over a period of time. Learning these rules can help

users understand the game more than they previously did, thus breaking down a barrier to participation for fear of ignorance. This, theoretically, could also lead to increased fan avidity, but might be more impactful increasing participation patterns involving baseball.

Do Baseball Video Games Impede Participation?

On the contrary to increasing participation, baseball video games might deter users from playing the actual game or to play it less because of what the video game can offer. It is frequently suggested that American youth today lead more sedentary lifestyles than previous generations, and playing video games might be seen as an easier way of consuming baseball. With contemporary video games, the realism can act as a substitute for playing actual baseball. Top baseball video games now provide an immersive experience through sights, sounds, interactivity, and diverse gameplay. The realistic nature of current technologically advanced games might make actual playing or watching of baseball obsolete, especially to the new user.

Playing these games also takes up time that could be used for playing real baseball outdoors. There is a finite time per day and week that people have to allocate their leisure time, and with gaming holding an important part in contemporary American culture, allocating time to video games of baseball instead of playing actual baseball may exist. It has already been shown that screen time takes up an average of five and a half hours per day for youth. This shows their allegiance and cultural acceptance of virtual media sources, one of which is video games.

Reliability and accessibility concepts can further play into how baseball video games deter actual participation. According to Rigby and Ryan (2011), the accessibility and reliability of video games keeps users playing the games longer and more often, a concept that might explain how video games deter participation. Video game consoles are present in the majority of American households, which means that most children in America have access to playing all sorts of video games, including baseball (Juba, 2012). Access to baseball field space and game equipment may be more scarce and harder to access. The ease of turning on a game and being able to interactively participate in any way the user desires could act as a physical participation barrier. Video games are also more reliable than actually playing a baseball game. Playing a game outside requires coordination to get enough players, equipment, time, acceptable weather, and, most importantly, physical skill acquisition. Playing a baseball video game requires the push of a button. Being easier to play and holding the potential to play anytime may make baseball video games more attractive, thus reducing participation patterns.

Future of Home Gaming

Video games have grown from more than just the standard constrained in-home experience to one involving Internet access allowing for social networking. They also are capitalizing on a more encompassing home entertainment experi-

ence (Helgeson, 2013). Baseball video games are primed to take this next step as well with the next generation video game consoles improving on more than just graphics and sounds; they want to make video game users feel connected to the rest of the world and be able to have their complete entertainment experience with the new consoles (Helgeson, 2013).

The future of video gaming, including baseball video games, is to become more interactive and provide a more satisfying social experience, something valued by contemporary American society (Helgeson, 2013; Rigby & Ryan, 2011). The next generation of home video game consoles will allow users to post videos and achievements to the internet instantly through devices such as Twitter and Facebook (Ryckert, 2013). Advancements in gaming may lead to more video game consumption by youth and teens, causing a possible “slippery slope” effect and increasing video game popularity. More video game involvement may lead to less physical involvement in numerous activities, including baseball.

Advancements in the technology of home baseball gaming are changing the actual games and the way that sport organizations operate. Much like other forms of social media, baseball video games—especially the 8th generation consoles of the Xbox One and Playstation 4—allow fans to express their opinions through social interactions with others. Being aware of these interactions and exchanges may allow sport executives to monitor the pulse of their teams and sport, making marketing and other business strategies more effective. Video games also impact the actual sport product. EA Sports’ *FIFA 13* teamed up with Major League Soccer (MLS) to create the “In the Game Challenge,” and whenever a gamer scored a goal in the video game at home, the MLS player who scored the goal received one point toward being selected as the 11th man for the All-Star Game (Zellner, 2013). This may suggest video games could soon influence who starts in actual games or even whether teams decide to keep certain players. This may be hard to believe and was undoubtedly a marketing gimmick at the moment, but it serves as a clear, modern example of technology changing the game.

Many people may view video or fantasy gaming advancements as beneficial or enjoyable, but they may lead to increased screen time and more sedentary lifestyles if they are not consumed with caution. An area of concern brought to light in this work looks at the impact baseball video games may have on traditional consumption and avidity. With advancements in technology, the future of gaming may look different and change fan avidity for entities like MLB. In much the same way that NFL commissioner Roger Goodell has commented on how increases in high definition televisions may impact the future of football games and attending actual events, increases in video and fantasy game technology may lead to a concern for the future of traditional consumption across sports (Shain, 2012).

Implications and Future Research

This paper has explored possible implications of nontraditional forms of baseball gaming on traditional forms. While this work’s aim is to bring specific issues

to the forefront, some findings can be drawn based on the issues discussed. It stands to reason that playing in-home baseball games such as fantasy baseball and baseball video games leads gamers to higher avidity and more consumption of professional baseball data. In-home games (board games, data games, fantasy leagues, video games) are good for baseball. Further, if in-home gaming declines, it may be an early indication a sport is losing broad contemporary appeal. In-home baseball games have and always will be good for the stadium product. The exposure gamers receive and reinforcement they find through these games can be hypothesized as offering the potential to create more baseball interest. This is based largely on how Ipsos Public Affairs (as cited by Fisher, 2008) found that fantasy participants out-consume the general population as it relates to the major product and service categories as well as outpaces the spending habits of the average sport fan. This means even though data has not been collected on the impact of baseball video games, it can be hypothesized that baseball video games will lead gamers to outconsume compared to the general public. Future research should test this hypothesis and determine the impact of baseball video games on traditional consumption.

Academically in sport management, this work serves to show how advances in technology and an ever-changing landscape of socially accepted practices must be understood. Understanding these ideas and how nontraditional forms of sport consumption impact traditional sport consumption, both positive and negative, will lead to best practices for students to learn and practitioners to establish. Major League Baseball Advanced Media has developed its own baseball video game (RBI Baseball '14) in order to establish brand awareness in hopes of drawing in new consumers and creating new attachment. This is a breakthrough step in professional sport leagues understanding and using advanced technology in sport video games and other forms of nontraditional consumption to increase revenue and consumers.

Practically, MLB should embrace the notion of researching baseball video and fantasy gaming in order to understand consumer behaviors and consumption patterns. By providing the opportunity for new consumers to play sport video games, practitioners may increase the chance for greater sport consumption (Cooper, Gawrysiak, & Hawkins, 2013). MLB may also wish to partner more holistically with video game manufacturers, such as EA Sports and Sony, to create an authentic and enjoyable baseball simulation, as well as one that fosters appreciation and a connection to professional baseball. Baseball video games are currently struggling on the sport video game market, especially compared to soccer, football, and basketball games, as shown in Figure 2. By encouraging gaming and supporting the development of baseball video games, MLB may be able to create more interest in baseball video games and, theoretically, MLB itself.

Baseball Consumption and In-Home Gaming

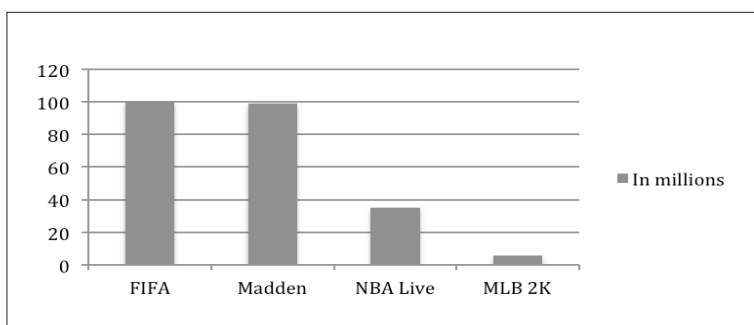


Figure 2. Number of units sold for popular sport video game franchises worldwide. (Dwight, 2010; EA SPORTS, 2010; Hinkle, 2013).

This work has also discussed the lack of research in baseball video games and the implications of advanced technology usage in fantasy baseball, thus illuminating areas that should be researched to benefit both MLB and its member clubs. This is one of the first works looking at sport video games and their implications from a business standpoint. It is also one of the first works linking in-home baseball gaming to the real world product. The field of video games has only been researched over the past decade or so, with little research conducted around sport video games. With professional sports and video games standing as multi-billion dollar industries, the impact of one on the other and the ways that they are interconnected could have significant implications. To some sport industry practitioners, technology may be feared because it's not clearly understood and represents disruptive change. To some, however, the advances in technology should be embraced for enhancing pathways to product awareness, trial and usage easier. Research must discover if realism in baseball video games leads to more or less traditional baseball consumption, which will determine how practitioners approach contemporary in-home baseball gaming.

References

- Allis, S. (2006, March 12). Lords of the games: Fantasy baseball indebted to two innovators. *Boston Globe*, A3.
- Baechler, S. (2011). Using games to improve performance and results. *People and Strategy*, Vol. 34, 4–5.
- Botta, C. (2013). Canada to deliver for NHL. Retrieved from <http://www.sports-businessdaily.com/Journal/Issues/2013/11/25/Media/Canada-TV.aspx>
- Bourdieu, P., & Passeron, J. (1977). *Reproduction in education, society, and culture*. London: Sage.
- Burns, K., & Novick, L., & Burns, K. (1994, September 18). *Baseball*. [Video/DVD] USA: PBS.

- Burton, R. (2013). Fantasy sports: The tree started in Brooklyn. *Memories and Dreams*, 35(5).
- Burton, R., Hall, K., & Paul, R. (2013). The historical development and marketing of fantasy sports leagues. *The Journal of Sport*, 2, 185–215.
- Cauchon, D. (2005, August 12). Childhood pastimes are increasingly moving indoors. *USA Today*.
- Cianfrone, B. A., Zhang, J. J., Trail, G. T., & Lutz, R. J. (2008). Effectiveness of in-game advertisements in sport video games: An experimental inquiry on current gamers. *International Journal of Sport Communication*, 1, 195–218.
- Clavio, G., Kraft, P. M., & Pedersen, P. M. (2009). Communicating with consumers through video games: An analysis of brand development within the video gaming segment of the sports industry. *International Journal of Sports Marketing & Sponsorship*, 10, 143–156.
- Cooper, J. N., Gawrysiak, J., & Hawkins, B. (2013). Racial perceptions of baseball at historically black colleges and universities. *Journal of Sport and Social Issues*, 37, 196–221.
- Crupi, A. (2011). NBA lockout will cost networks billions pro hoops debacle could be a disaster for ESPN, TNT. Retrieved from <http://www.adweek.com/news/television/nba-lockout-will-cost-networks-billions-133145>
- DeSarbo, W. S., & Madrigal, R. (2011). Examining the behavioral manifestations of fan avidity in sports marketing. *Journal of Modelling in Management*, 6, No. 1, 79–99.
- Drayer, J., Shapiro, S., Dwyer, B., Morse, A., & White, J. (2010). The effects of fantasy football participation on NFL consumption: A qualitative analysis. *Sport Management Review*, 13, 129–141.
- Duncan, M. J., & Dick, S. (2012). Energy expenditure and enjoyment of exergaming: A comparison of the Nintendo Wii and the gamercize power stepper in young adults. *Medicina Sportiva*, 16, 92–98.
- Dwight Howard named cover athlete of EA Sports NBA Live 10. (2010). Retrieved from <http://www.ea.com/news/dwight-howard-cover-athlete-nba-live-10>
- Dwyer, B. (2011). Divided loyalty? An analysis of fantasy football involvement and attitudinal loyalty to individual National Football League (NFL) teams. *Journal of Sport Management*, 25, 216–231.
- Dwyer, B. (2013). The impact of game outcomes on fantasy football participation and National Football League media consumption. *Sport Marketing Quarterly*, 22, 33–47.
- Dwyer, B., & Drayer, J. (2010). Fantasy sport consumer segmentation: An investigation into the differing consumption modes of fantasy football participants. *Sport Marketing Quarterly*, 19, 207–216.
- Dwyer, B., & Drayer, J. (2013). New games revive comparisons between fantasy, gambling. *Sports Business Journal*, 16, 27.

- Dwyer, B., & Kim, Y. (2011). For love or money: Developing and validating a motivational scale for fantasy football participation. *Journal of Sport Management*, 25, 70–83.
- Dwyer, B., & LeCrom, C. W. (2013). Is fantasy trumping reality? The redefined National Football League experience of novice fantasy football participants. *Journal of Contemporary Athletics*, 7(3).
- Dwyer, B., Shapiro, S. L., & Drayer, J. (2011). Segmenting motivation: An analysis of fantasy baseball motives and mediated sport consumption. *Sport Marketing Quarterly*, 20, 129–137.
- EA Sports FIFA soccer franchise sales top 100 million units lifetime. (2010). Retrieved from <http://www.businesswire.com/news/home/20101104006782/en#>. UtmE7Cso5PM
- Entertainment software association- industry facts. (2013). Retrieved from <http://www.theesa.com/facts/index.asp>
- Fantasy Sports Trade Association. (2008, July 7). Fantasy sports industry grows to an \$800 million industry with 29.9 million players. Chicago: Jeff Thomas. Retrieved from <http://www.fsta.org/news/pressreleases/>
- Fantasy Sports Trade Association. (2012). *Summer 2012 Fantasy Sports Research Group and IPSOS Study*. Retrieved from http://fsta.org/industry_demographics
- Fantasy Sports Trade Association. (2014). FSTA in the news. Retrieved from <http://www.fsta.org/blog/fsta-in-the-news>
- Farquhar, L. K., & Meeds, R. (2007). Types of fantasy sports users and their motivations. *Journal of Computer-Mediated Communication*, 12, 1208–1228.
- Fisher, E., (2008, November 17). Study: Fantasy players spend big. *Street and Smith's SportsBusiness Journal*, 11, 1–2. Retrieved from <http://www.sports-businessjournal.com/article/60598>
- Florio, M. (2013, July 1). Jags may show continuous RedZone on new video boards. *Pro Football Talk*. Retrieved from <http://profootballtalk.nbcsports.com/2013/07/01/jags-may-show-continuous-redzone-on-new-video-boards/>
- Gardner, S. (2013, July 27). Jaguars plan lounge for fantasy fans. *USA Today*. Retrieved from <http://www.usatoday.com/story/sports/fantasy/2013/07/02/jaguars-fantasy-football-lounge/2484375/>
- Gwinner, K. P., & Eaton, J. (1999). Building brand image through event sponsorship: The role of image transfer. *Journal of Advertising*, 28(4), 47–57.
- Ha, J., Ha, J-H, & Han, K. (2013). Online sport consumption motives: Why does an ethnic minority group consume sports in a native and host country through the internet? *International Journal of Sport Management, Recreation and Tourism*, 11, 63–89.
- Helgeson, M. (2013, The battle for the living room. *Gameinformer*, 243, 10–21.
- Hinkle, D. (2013). Madden NFL 25 is this year's Madden game; cover voting starts March 11. Retrieved from <http://www.joystiq.com/2013/02/01/madden-nfl-25-is-this-years-madden-game-cover-voting-starts-ma/>

- Hoge, P. (2013, March 19). 49ers plan massive stadium WiFi network. *San Francisco Business Journal*. Retrieved from <http://www.bizjournals.com/sanfrancisco/blog/2013/03/49ers-plan-massive-stadium-wifi-network.html>
- Juba, J. (2012). Over half of U.S. households have a modern console. Retrieved from <http://www.gameinformer.com/b/news/archive/2012/03/09/56-of-us-households-have-a-modern-console.aspx>
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57, 1–22.
- Kim, Y., Walsh, P., & Ross, S. (2008). An examination of the psychological and consumptive behaviors of sport video gamers. *Sport Marketing Quarterly*, 17, 44–53.
- Levy, D. (2005). *Sports fandom habitus: An investigation of the active consumption of sport, its effects and social implications through the lives of fantasy sport enthusiasts* (Unpublished doctoral dissertation). University of Connecticut: Storrs, CT.
- Lewis, M. (2003). *Moneyball: The art of winning an unfair game*. New York: W.W. Norton and Company, Inc.
- Lumby, A. (2013). The 10 best-selling video games of 2013. Retrieved from <http://news.yahoo.com/10-best-selling-video-games-233500668.html>
- Magnusen, M., & Kim, Y. (presented 2009, November). *Beyond motives and brand recall: Examining sport video game point of attachment, real-life sport attachment, and sport consumer behaviors*. Presentation at the 13th annual conference of the Sport, Entertainment, and Venues Tomorrow, Sport, Entertainment, and Venues Tomorrow, Columbia, SC.
- Mahan III, J. E., Drayer, J., & Sparvero, E. (2012). Gambling and fantasy: An examination of the influence of money on fan attitudes and behaviors. *Sport Marketing Quarterly*, 21, 159–169.
- Major league gaming facts. (2013). Retrieved from www.majorleaguegaming.com
- MLB, Tox and Turner finally make TV deals official. (2012). Retrieved from <http://www.usatoday.com/story/gameon/2012/10/02/mlb-turner-sports-tbs-espn-fox/1608173/>
- Nelson, T. (2013, March 18). Stadium watch: Tracking the buildings and the money. *Minnesota Public Radio*. Retrieved from <http://blogs.mprnews.org/stadium-watch/tag/technology/>
- Nesbit, T. M., & King, K. A. (2010a). The impact of fantasy sports on television viewership. *Journal of Media Economics*, 23, 24–41.
- Nesbit, T. M., & King, K. A. (2010b). The impact of fantasy football participation on NFL attendance. *Atlantic Economic Journal*, 38, 95–108.
- Ozanian, M. (2012). The NFL's \$3 billion TV prize will push up retransmission revenue for networks. Retrieved from <http://www.forbes.com/sites/mikeozanian/2012/01/06/the-nfls-3-billion-tv-prize-will-push-up-retransmission-revenue-for-networks/>

- Reeves, B. (2012). Why we play: How our desire for games shapes our world. *Gameinformer*, 235, 30–32.
- Rigby, S., & Ryan, R. M. (2011). *Glued to games: How video games draw us in and hold us spellbound*. Santa Barbara, CA: Praeger.
- Robinson, J. (2011). The power of serious play. *People and Strategy*, 34, 9.
- Robinson, J. (2012). Evan Longoria talks 'Call of Duty', Rays. Retrieved from http://espn.go.com/blog/playbook/tech/post/_/id/2669/evan-longoria-talks-call-of-duty-rays#more
- Robinson, J. (2013). Top 25 sports video games ever. Retrieved from http://espn.go.com/espn/playbook/story/_/id/9233143/jon-robinson-ranks-best-sports-video-games-all
- Rosen, D. (2013). NHL, Rogers announce landmark 12-year deal. Retrieved from <http://www.nhl.com/ice/news.htm?id=693152>
- Ryckert, D. (2013). Getting to know the PS4 controller. *Gameinformer*, 242, 38–43.
- Shain, M. (2012). Is TV killing the NFL? Retrieved from http://www.nypost.com/p/entertainment/tv/is_tv_killing_the_nfl_isXTo7ifYyKsrX1UNTVCpJ
- Shipman, F. M. (2001). Blending the real and virtual: Activity and spectatorship in fantasy sports. Proceedings from *DAC '01: The Conference on Digital Arts and Culture*. Retrieved from <http://www.stg.brown.edu/conferences/DAC/>
- Sources: New MLS TV deal with Fox/ESPN could be worth \$70M annually. (2014). Retrieved from <http://www.sportsbusinessdaily.com/Daily/Issues/2014/01/10/Media/MLS.aspx>
- Spinda, J. S. W., & Haridakis, P. M. (2008). Exploring the motives of fantasy sports: A uses-and-gratifications approach. In L. W. Hugenberg, P. M. Haridakis, & A. C. Earnhardt (Eds.), *Sports mania: Essays on fandom and the media in the 21st century* (pp. 187–202).
- Szalai, G. (2012). U.S. video game industry sales fell 8% in 2011 to \$17 billion. Retrieved from <http://www.hollywoodreporter.com/news/us-video-game-sales-2011-fell-281266>
- Tylicki, D. (2012). 50 greatest baseball video games of all time. Retrieved from <http://bleacherreport.com/articles/1140632-50-greatest-baseball-video-games-of-all-time/page>.
- Van Riper, T. (2008, December 1). Slow growth for fantasy sports. *Forbes*. Retrieved from <http://www.forbes.com/>
- Vlahos, J. (2014). The Super Bowl of sports gambling. Retrieved from http://www.nytimes.com/2014/02/02/magazine/the-super-bowl-of-sports-gambling.html?_r=0
- Wadlington, T. R. (2013). What is fantasy football? *Overtime fantasy football*. Retrieved from <http://overtimefantasyfootball.com/whatisfantasyfootball.html>
- Walsh, P., Zimmerman, M. H., Clavio, G., & Williams, A. S. (2013). Comparing brand awareness levels of in-game advertising in sport video games featuring visual and verbal communication cues. *Communication & Sport*. DOI: 10.1177/2167479513489120.

- Wann, D. L., Grieve, F. G., & Zapalac, R. K. (2008). Motivational profiles of sport fans of different sports. *Sport Marketing Quarterly*, 17, 6–19.
- Weissmann, J. (2013). The insane growth of fantasy sports- in 1 graph. Retrieved Retrieved from <http://www.theatlantic.com/business/archive/2013/09/the-insane-growth-of-fantasy-sports-in-1-graph/279532/>
- Woods, R. B. (2011). *Social issues in sport* (2nd ed.). Champaign, IL: Human Kinetics.
- Zellner, X. (2013, July 9). Video gamers selecting 11th man, *USA Today*, 8C.