

**Game Changer:
The Effects of Fantasy Football on NFL Fan Behaviour**

Cormac Neeson

**A Research Paper submitted to the University of Dublin in partial fulfilment of the
requirements for a degree of Master of Science in Interactive Digital Media**

2014

Declaration

I declare that the content of this research paper is, except where otherwise stated, entirely my own work and has not been submitted as an exercise for a degree at this or any other university.

Signed: _____

Cormac Neeson

28th February, 2014

Permission to lend and/or copy

I agree that Trinity College Dublin may lend or copy this research paper upon request.

Signed: _____

Cormac Neeson

28th February, 2014

Acknowledgements

I would like to gratefully acknowledge Dr Inmaculada Arnedillo-Sánchez for her guidance and particularly for her patience during the composition of this research paper.

Thanks are also in order to Cathy Neeson, Ben Hardy and Eoin Kilbride for kindly proofreading my submission.

Abstract

Game Changer:

The Effects of Fantasy Football on NFL Fan Behaviour

Fantasy football is one of the most popular pastimes in the USA. After spending much of its existence as an obscure hobby partaken in by only a handful of hardcore NFL fans, the advent of the internet was the catalyst for an explosion in its popularity. Today, it has become part of the American cultural fabric. There are approximately 32 million participants in North America alone; roughly one in six American adults are fantasy football players. As a result of its widespread popularity, a debate has sprung up around fantasy football about whether it is a positive or negative phenomenon. Critics claim that, due to its emphasis on individual players, fantasy football undermines the traditional team-first focus of American football and weakens the allegiance of fans to their favourite franchises. Advocates of fantasy football argue that fantasy football benefits the NFL by giving fans another source of interest in the league. Regardless of which side of the debate they are on, the people involved tacitly agreed on one important point; fantasy football participation affects the behaviour of NFL fans. Evaluating the validity of this hypothesis was the objective of this research paper. To do so, data was extracted from a wide range of academic studies on the subject of fantasy football. This data was then used to evaluate whether fantasy football participants and non-participants differ in terms of quantity of NFL-related media consumed, behaviour while consuming NFL-related content, and identification levels with various aspects of the NFL. Evidence was found of differences between fantasy football participants and non-participants in each of these three areas. This supports the overall conclusion of this research paper that fantasy football is indeed affecting the behaviour of NFL fans.

Table of Contents

Chapter 1: Introduction.....	1
Chapter 2: State-of-the-Art	5
Fan Interaction with Media	
<i>a) Quantity of Media Consumed</i>	
i) Television Consumption	6
ii) Radio Consumption	7
iii) Print Media Consumption	7
iv) Internet Consumption	7
 <i>b) Media Consumption Behaviour</i>	
i) Involvement in Media	8
ii) Pre-Exposure Selectivity of Media	8
iii) Type of Content Consumed.....	9
iv) Choice of Games Watched	9
Fan Identification	
i) Team Identification	10
ii) Interest in Multiple Teams	11
iii) Individual Player Identification	11
iv) Other Points of Attachment	12
Chapter 3: Design, Methodology, & Implementation.....	13
Chapter 4: Results, Evaluation, & Analysis.....	15
Fan Interaction with Media	
<i>a) Quantity of Media Consumed</i>	
i) Television Consumption	15
ii) Radio Consumption	19
iii) Print Media Consumption	19
iv) Internet Consumption.....	21

b) Media Consumption Behaviour

i) Involvement in Media	25
ii) Pre-Exposure Selectivity of Media	27
iii) Type of Content Consumed.....	28
iv) Choice of Games Watched	28

Fan Identification

i) Team Identification	30
ii) Interest in Multiple Teams	32
iii) Individual Player Identification	33
iv) Other Points of Attachment	34

Chapter 5: Conclusion	36
List of Tables.....	38
References.....	39

Chapter 1: Introduction

With time running out in a 2009 National Football League (NFL) game against the New York Jets, Maurice Jones-Drew of the Jacksonville Jaguars received the ball, burst through a wave of defenders, and sped towards the end-zone. With nothing but grass standing in his way, it seemed certain that Jones-Drew was going to score and in doing so put his team in the lead. A few inches shy of the goal-line, however, Jones-Drew did something that might surprise a casual observer. He fell down untouched, apparently deliberately spurning the opportunity to score. His actions did in fact make sense, due to the byzantine rules that govern American football. Had Jones-Drew continued into the end-zone and scored, the Jaguars would have been obliged to concede possession of the ball by kicking it off to the Jets. This would have given the Jets a chance, however miniscule, to mount a comeback and win the game. The head coach of the Jets even admitted later that he had instructed his defenders to allow the Jaguars to score for this very reason. Due to Jones-Drew's shrewd move, the Jaguars were able to hold on to the ball for the remainder of the game and score the winning points as time expired, thus avoiding any risk of ceding the lead back to the Jets. Jones-Drew was praised for his part in the win because, for the sake of guaranteeing victory, he had forgone the personal glory – not to mention the financial reward - that came with scoring a touchdown. After all, individual self-sacrifice for the greater good is a major theme of team sports in general and American football in particular, and Jones-Drew's action was a prime example of such. With this in mind, Jones-Drew's response to the incident when facing the cameras for the post-game interview was an unusual one; he apologized. And he did so because of the immensely popular game known as fantasy football.

This research paper seeks to answer the question of whether fantasy football is having an effect on the behaviour of NFL fans. There are two reasons that combine to make this a plausible possibility: the first is the enormous popularity of fantasy football, and the second is the perceived differences in motivations between traditional fans and fantasy football participants in terms of viewing the NFL. Although fantasy football was initially conceived in the 1960s, it was a niche activity for much of its existence. The arrival of the internet, however, heralded an explosion in its popularity that has led to fantasy football becoming part of the cultural mainstream of North America and beyond. As of 2010, *Forbes* reported that there were around 32 million participants in the United States and Canada alone (Steinberg 2012). It has been estimated that 15% of all U.S. adults participate in fantasy football (Woodward 2005). The popularity of the activity was underlined by the apologetic (albeit jocular) comments of Maurice Jones-Drew after the incident described above. 'To my fantasy owners, I apologize', said Jones-Drew, '...it was a tough call. But whatever it takes for

a victory, that's all that counts.'(NBC Sports 2009) Although Jones-Drew made his comments in jest, the very fact that he brought up the topic of fantasy football is indicative of how deeply it has become embedded in NFL culture. If fantasy football does indeed affect fan behaviour, its impact will be significant due to the large number of people who play it.

The second point, regarding the differing motivations of NFL fans who do not participate in fantasy football and those who do, may require further explanation and an understanding of the differences between real-life American football and fantasy football. American football is a contest that takes place in the real world and is comprised of two teams, each trying to score more points than the other. There are several ways to score points – for example, advancing the ball all the way to end of the playing field that the opposing team is defending will result in six points being awarded to the attacking team. Another common method of scoring is for the attacking team to kick the ball from a distance between two elevated posts at the end of the field, which yields three points. While a vast and bewildering array of statistics is recorded, points are the only statistic taken into account when determining the winner and loser of an individual game. It is also important to note that American football is a quintessential team sport; regardless of which individual player carries out the act of scoring, the entire team benefits from the resulting award of points. By contrast, fantasy football does not take place in the physical world, although events in the real world do provide the basis for fantasy football. The actual contests in fantasy football, however, are purely notional and exist only in a virtual sense. Fantasy football contests are between two individuals, who have each chosen an imagined 'team' of players drawn from various different real-life American football teams. These players earn fantasy points based on the statistics they produce in the games that they play in for their real-life teams – for example, scoring a touchdown in a real-life game would yield six points for fantasy football owners who had selected that player. Only the statistics accrued by an individual player count towards their fantasy points; the overall performance of their real-life team is irrelevant in fantasy terms. The outcome of the fantasy football contest is decided by which person has selected the collection of individual players that obtains the highest collective total of fantasy points. This creates the fundamental theoretical conflict between traditional football fans, who support a single particular real-life team, and fantasy football participants, who have a vested interest in several individuals distributed across several real-life teams. This theoretical conflict is that traditional fans care about the performance of the team but do not care about the performance of individual players, while fantasy football participants care about the performance of individual players but do not care about the overall performance of teams.

Fantasy football has attracted criticism from those who believe that it is a negative phenomenon which goes against the ethos of team sports by promoting interest in individuals rather than teams. Thomas Corrigan writes that ‘some members of the media contend that fantasy football players seem much more interested in how many touchdowns Peyton Manning threw, how many points the Baltimore Raven defense¹ gave up, and whether or not a Matt Stover field goal was from 49 or 51 yards, than whether their favourite NFL team is victorious.’ (Corrigan 2007). Others, including current NFL commissioner² Roger Goodell, believe that fantasy football is a positive development which gives fans extra reason to be interested in the league (Fabiano 2014). NFL players are themselves divided on the merits of the game. Some, like Jones-Drew, are enthusiastic participants. Other players, however, are vociferously critical of the concept of fantasy football, such as former Denver Broncos quarterback Jake Plummer. He claimed that “it’s ruined the game...there are no true fans anymore, because if I lose a game...there’s not a Denver fan mad that I lost, but happy because I [scored] three touchdowns. When I was growing up, I was a fan of my team, not the points I’m getting.” (Garber 2006) Regardless of which side of the debate these people are on, however, they all tacitly agree on at least one thing: fantasy football influences and alters fan behaviour. This paper aims to test that statement.

The first step in doing so was carrying out a review of relevant academic literature. Based on this review, quantifiable points of fan behaviour were identified and from these a framework of comparison between fantasy football participants and non-participants was established. The points of comparison fell into two main categories: fan identification with various aspects of the NFL and fan interaction with NFL-related media, which was further sub-divided into two categories: quantity of media consumed and behaviour while consuming media. Data relating to each of the points in this framework was extracted from the literature and evaluated to ascertain any potential impact of fantasy football. The products of this step are summarized in Chapter 2. These results were then analyzed, following the structure set out by the framework which is fully laid out in Chapter 3, in an effort to explain why and how fantasy football affects (or does not affect) each point of fan behaviour. This discussion of results can be found in Chapter 4.

As a result of this process several conclusions were reached. Fantasy football participants consume more NFL-related media than non-participants, but this extra consumption is limited to electronic forms of media. Fantasy football participants exhibit different patterns of behaviour to non-participants when consuming media - specifically, participants are more deeply involved with

¹ As ‘defense’ is a common word in the American football lexicon that refers to a specific entity, the American spelling is used throughout this paper.

² The NFL Commissioner is essentially the chief executive of the league as a whole.

NFL-related media, and more likely to watch multiple simultaneous games. Finally, compared to fantasy football non-participants, participants are more strongly identified with their favourite team, favourite coaches, and the sport of American football. Fantasy football participants are also more likely than non-participants to have an interest in multiple NFL teams. The overall conclusion of this paper in relation to its research question is that fantasy football has a significant effect of the behaviour of NFL fans.

Chapter 2: State-of-the-Art

This paper examines fan behaviour in relation to fantasy football participation using twelve parameters which fall into two broad categories: fan interaction with media and fan identification. These parameters are further discussed later in this section. This section also provides a detailed summary of the rules of fantasy football in order to give context to the literature reviewed.

In fantasy football, people compete against one another to build the best virtual team consisting of real professionals playing in the NFL. Fantasy football players generally organise themselves into small leagues that are usually composed of friends and family, and are commonly referred to as 'owners'. At the start of the NFL year, the owners hold a meeting known as the 'draft' to organise the selection of players. During the draft, owners take turns picking real-life players for their fantasy teams until each team has reached the agreed limit, usually around fifteen players apiece. Although the draft determines the initial rosters, each team is likely to change over the course of the season as owners are allowed to alter their team by dropping, adding, and trading players. Every week, each fantasy team plays against one other in their league in a head-to-head tie. For each weekly matchup, owners designate a certain number of their players as starters, relegating the remainder to reserve status. Owners must have a certain amount of players from each real-life American football position in their starting line-up. A common format, for example, is one quarterback, two running backs, three wide receivers, a tight end, a kicker, and a team defense³.

Points scored in fantasy leagues are determined by the statistical performance of the players during that week's real life NFL games. For example, if Maurice Jones-Drew had scored during the incident described in the introduction to this paper, owners starting him in fantasy leagues using the standard scoring system would have been awarded six points, reflecting the six points that touchdowns are worth in real-life football. In most fantasy leagues, players accumulate fantasy points by scoring touchdowns or gaining yards in their real-life games, and can lose points if they accidentally turn over possession of the football to the other team. At the end of each NFL game week, the total points scored by the active starters on each fantasy team are calculated. If a fantasy team's points total exceeds that of the team that they are matched up against for that particular week, they are credited with a win. At a point near the end of the NFL season, most fantasy leagues

³ In fantasy football, a team's entire defensive unit is treated as a single entity. For example, if an owner starts the Philadelphia Eagles defense, every defensive statistic accrued by the Eagles that week will be credited to that owner, regardless of which individual player is responsible.

end their so-called 'regular season' and enter their 'playoff' phase. The teams in the league are ranked by the number of wins each has accrued during the regular season, and a small number of teams with the best win/loss records advance to a short knockout tournament. This tournament draws on statistics from the final game weeks of the NFL schedule, and are decided using the same scoring system that governed the regular season. The winner of this tournament is deemed to be that season's champion of the fantasy league.

In order to determine whether participation in such fantasy leagues has an impact on NFL fans, twelve parameters of fan behaviour were chosen in order to compare fantasy football participants with non-participants. Each parameter was decided upon after a review of the literature identified it as an evidence-backed behavioural point of comparison between fantasy football participants and non-participants. The rationale behind the inclusion of each parameter is further discussed in Chapter 3. Below is a brief overview of the evidence available in the literature for each of the parameters, which have been arranged by category.

1. Fan Interaction with Media

The parameters in this category examine the ways in which fans interact with media relating to the NFL. There are two sub-divisions of parameters within this category – quantity of NFL-related media consumed and fan behaviour while consuming NFL content.

a) Quantity of Media Consumed

These parameters concern the quantity of NFL-related media consumed by fans, and are divided by type of media – television, radio, print, and internet.

i) Television Consumption

A comparison of how much time was spent watching NFL games and other American football-related material on television. Several papers found that fantasy football participants watch more NFL content on television than non-participants (Woodward 2005, Comeau 2007, Lee 2007). Similarly, results of a survey conducted by Thomas Corrigan indicated that fantasy football participants watch more NFL games each week than non-participants (Corrigan 2007). Nesbit and King also found that fantasy football participants watched more games than non-participants, which also held true when fans

were categorized as either avid or non-avid (Nesbit and King 2010). In addition, a study by John Fortunato found that televised games which featured players who were starting in a high percentage of fantasy leagues had higher ratings than games that did not (Fortunato 2011). Jeremy Lee's study indicated that there is a correlation between the depth of involvement in fantasy football and the amount of NFL content watched on television. He found that that time spent by fantasy football participants watching NFL games increased at higher levels of fantasy football participation (Lee 2007). Interviews conducted by Drayer et al with fantasy football participants indicated that playing fantasy football had led to an increase in their television consumption (Drayer, Shapiro et al. 2008)

ii) *Radio Consumption*

A comparison of how much time was spent listening to NFL games and other American football-related material on radio. Comeau's study found that fantasy football participants spend more than twice as much time listening to NFL information or entertainment on radio compared to non-participants (Comeau 2007).

iii) *Print Media Consumption*

A comparison of how much print media content which related to the NFL was consumed. Comeau's study found that fantasy football participation had no significant impact on consumption of printed NFL content (Comeau 2007).

iv) *Internet Consumption*

A comparison of how much online content relating to the NFL was consumed. Comeau's study showed a correlation between fantasy football participation and increased time spent viewing NFL-related content online. On average, fantasy football participants spent over four times more hours online than non-participants (Comeau 2007). Woodward interviewed several web editors who reported that adding content specifically focused on fantasy football to their websites resulted in both an increase in web traffic and higher average times spent by users browsing their site (Woodward

2005). Lee's paper states that as depth of involvement in fantasy football increases, so too does the amount of time spent viewing fantasy football content online (Lee 2007). Qualitative research carried out by Drayer et al indicated that the internet was the prime source of information for fantasy participants (Drayer, Shapiro et al. 2008).

b) Media Consumption Behaviour

These parameters concern the behaviour of fans in relation to the usage of NFL-related media. Four parameters were identified in this category – involvement in media, pre-exposure selectivity of media, type of content consumed, and choice of games watched.

i) Involvement in Media

This parameter compares the extent to which fantasy football participants and non-participants engage with NFL-related media. Comeau's study looked at three aspects of fan involvement in NFL-related media: cognitive involvement, representing the degree to which fans paid attention to and thought about the content they were consuming; behavioural involvement, representing the degree to which fans discussed the content with others; and affective involvement, representing the degree to which fans' emotions were affected by the content. Fantasy football participants reported higher levels of involvement than non-participants in each of these three aspects (Comeau 2007).

ii) Pre-Exposure Selectivity of Media

Pre-exposure selectivity is defined in Comeau's paper as "an audience members' intention to use...media". Pre-exposure selectivity is assessed by Comeau using three measures: Advance knowledge of which media outlet will be used for consumption of content, advance knowledge of what content will be available through this media outlet, and advance knowledge of when the content will be available. In the context of consuming NFL games, pre-exposure selectivity can be succinctly summarised as fan knowledge of what channel will be showing what game at what time. Comeau's study

found that fantasy football participation was not a significant predictor of pre-exposure selectivity of media content, with participants and non-participants exhibiting roughly similar levels of pre-exposure selectivity (Comeau 2007).

iii) *Type of Content Consumed*

This parameter evaluates whether there is a difference in the types of content consumed by fantasy football participants and non-participants. Woodward's paper presents several examples of NFL-related articles and columns in newspapers that contain little or no news or game coverage, instead offering fantasy advice such as predictions of which players will perform well statistically in forthcoming games. Woodward also notes several television channels that have incorporated specific fantasy football content into their broadcasts (Woodward 2005).

iv) *Choice of Games Watched*

This parameter compares which games fantasy football participants and non-participants choose to watch. Dwyer's paper asserts that fantasy football participants are more likely than non-participants to watch games that do not involve their favourite team. Dwyer also argues that fantasy football participants are more likely to switch back and forth between games that are being simultaneously broadcast (Dwyer 2011). Corrigan's survey found that a large majority of fantasy football participants frequently watch more than one NFL game at a time, while the majority of non-participants do not. This disparity was further reflected in subscription rates to NFL Sunday Ticket, a pay-per-view television package which makes every NFL game available to viewers. The proportion of subscribers to this service was far higher among fantasy football participants than among non-fantasy football participants (Corrigan 2007). Lee's paper discusses a feature of the NFL Sunday Ticket package known as 'Red Zone', a channel that automatically switches to live coverage of any game in which either team has advanced the ball to within twenty yards of the opposition's end zone⁴, and thus have a high chance of imminently scoring points. Lee posits that this service is a direct, targeted response to the emergence of the fantasy football market (Lee 2007).

⁴ The area of the field within twenty yards of the end zone is colloquially known as the 'Red Zone', hence the name of the channel.

Fortunato points out that there are certain games which fantasy football participants may continue to view after non-participants have stopped watching. If, for example, one team is heavily beating another deep into the second half of a game, non-participants may switch off as the outcome of the game is a foregone conclusion. Fantasy football players, however, may continue to watch to see if players selected for their fantasy team add to their personal statistics and thus score more fantasy points (Fortunato 2011). Fantasy football participants interviewed by Drayer et al stated that they often watched multiple simultaneous games in order to keep track of the performance of the various players on their fantasy teams (Drayer, Shapiro et al. 2008). Interviews conducted by Dwyer and Kim with focus groups of fantasy football participants indicated that, even when watching only a single game, participants pay increased attention to highlights shown from other games during the broadcast (Dwyer and Kim 2011).

2. Fan Identification

The parameters in this category examine the identification of fans with players, teams, and other points of attachment to NFL football – in other words, the level of attachment that fans have to those aspects of the NFL.

i) Team Identification

This parameter compares the relative strength of attachment of fantasy football participants and non-participants to their favourite NFL teams. Separate surveys conducted by Dwyer and Lee indicated that there is a positive relationship between fantasy football participation and an individual's attitudinal loyalty to their favourite NFL team. In other words, people who were highly involved in fantasy football were likely to report a higher than average level of attachment to their favourite team (Lee 2007, Dwyer 2011). Lee also queried his respondents on whether they felt that playing fantasy football had affected their fandom of their favourite team. The general sentiment of the responses was that it had not (Lee 2007). A similar study by Corrigan found that fantasy football participants reported higher levels of identification with their favourite NFL team than non-participants (Corrigan 2007). Fantasy football participants interviewed by Drayer et al felt that playing fantasy football had added a

new dimension to their interest in the NFL without adversely affecting their prior interest in their favourite team (Drayer, Shapiro et al. 2008).

ii) Interest in Multiple Teams

This parameter examines the extent to which fantasy football participants and non-participants show interest in multiple NFL teams. This should not be confused with the related but distinct 'Team Identification' parameter discussed above, which refers to depth of attachment to a single, particular team. Instead, this parameter looks at the breadth of fans' interest in multiple teams across the league. Dwyer and Kim conducted a series of interviews with focus groups of fantasy football participants in order to gain insight into their motivations for playing. The results of these interviews indicate that the opportunity to enjoy the performance of NFL players who did not play for their favourite team was a significant motivational factor for fantasy football participation (Dwyer and Kim 2011). As mentioned above, Lee queried respondents to his survey on the effects that fantasy football participation had on their fandom. A major theme of the response to this question was that fantasy football participation had increased the interest of respondents of teams outside of their favourite one (Lee 2007). Many of the fantasy football participants who were the subject of a study by Drayer et al expressed the opinion that playing fantasy football had greatly increased the attention that they paid to NFL teams other than their favourite one (Drayer, Shapiro et al. 2008).

iii) Individual Player Identification

This parameter compares the relative strength of attachment of fantasy football participants and non-participants to individual NFL players. Results of a study conducted by Corrigan indicate that fantasy football participants identify more strongly with individual NFL players than non-participants (Corrigan 2007). Lee's interviews with the fantasy football participants who responded to his survey revealed that respondents felt that participation in fantasy football had increased their knowledge of and interest in individual NFL players (Lee 2007). Several fantasy football participants interviewed by Drayer et al stated that the increased attention that they paid to individual players as a

result of playing fantasy football frequently led to increased affection for those players (Drayer, Shapiro et al. 2008).

iv) Other Points of Attachment

In addition to team identification and player identification, Corrigan identifies several other possible points of attachment to the NFL: attachment to individual coaches, attachment to the sport of American football, and attachment to the NFL level of play. When fantasy football participants and non-participants were compared in these areas, Corrigan found that participants have stronger attachments to individual coaches and the sport of American football, but that attachment to the NFL level of play was relatively even between both groups (Corrigan 2007).

Chapter 3: Design, Methodology, & Implementation

To evaluate the impact of fantasy football participation on the behaviour of NFL fans, a series of parameters were identified in order to compare the behaviour of fantasy football participants to that of non-participants. These fell into two broad categories: parameters concerning fan identification, and parameters concerning fan interaction with media. The latter category was comprised of two sub-divisions of parameters: quantity of NFL-related media consumed, and the behaviour of fans while consuming NFL-related media (see Figure 1 below).

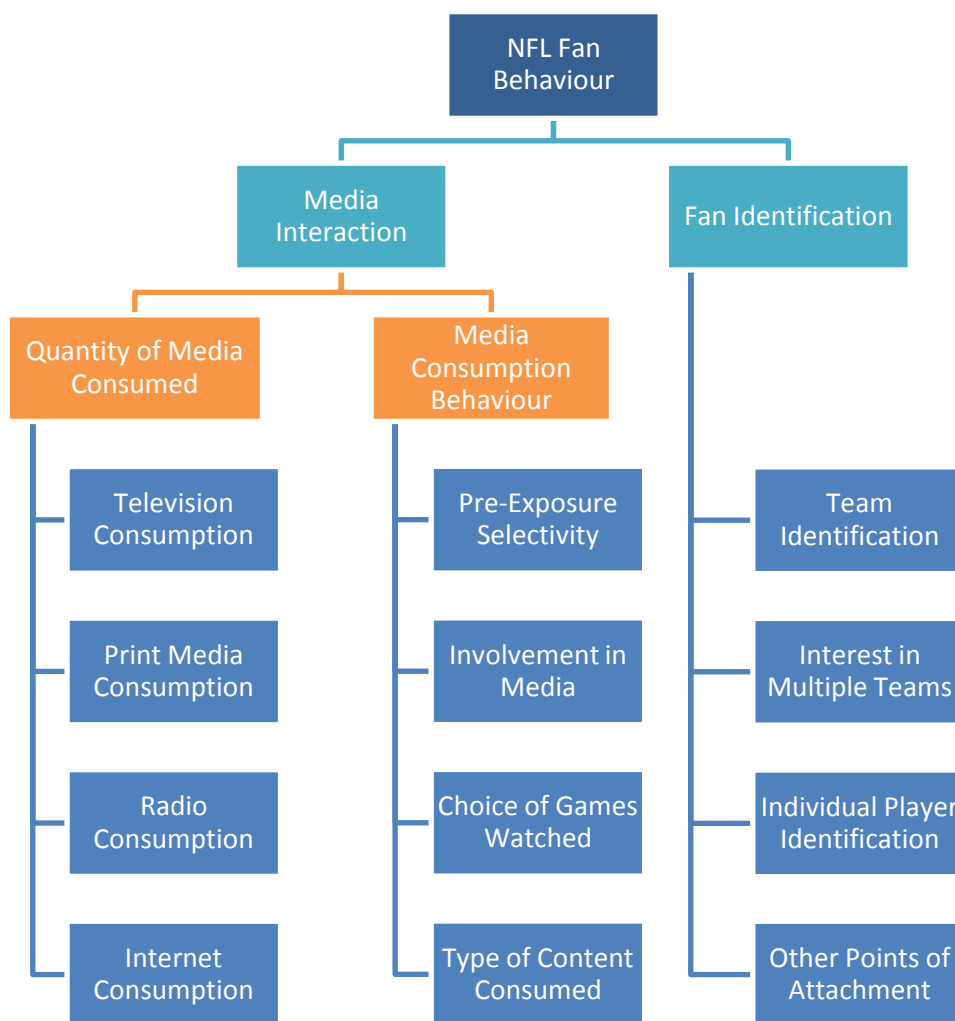


Figure 1: Parameter Framework

The parameters that dealt with the overall quantity of different types of media consumed by fans was chosen for two main reasons; first, it is possible to accurately quantify the time spent consuming each type of media, which facilitated a straightforward comparison between fantasy

football participants and non-participants. Secondly, the quantity of relevant media consumed by fans serves as a barometer for their interest in the NFL; it is likely that fans who consume higher quantities of NFL-related media have higher levels of interest in the league.

Although more difficult to quantify than the parameters concerning quantity of media consumed, some parameters were chosen in order to investigate whether fantasy football also changes the methods by which fans interact with media – in other words, not just how much media fans use, but also how and why they use it. It was hoped that these parameters would offer insight into how fantasy football participation affects the motivations and interests of NFL fans.

The final category of parameters concerned fan identification. The term ‘fan identification’ borders on tautological – to be a fan of something is to express identification with it. However, a major contention of fantasy football critics is that it weakens fan identification with their favourite teams; tantamount to saying that participation in fantasy football makes people lesser fans. It was thus decided that a parameter should be included to evaluate the validity of this criticism. Potential corollaries of reduced fantasy participant identification with their favourite team included increased identification with individual players and with other NFL teams; these parameters were also evaluated.

After this framework was established, a wide range of academic literature relating to the topic of fantasy sports was reviewed. Qualitative and quantitative data relevant to the research parameters was extracted from these papers. Of particular interest was quantitative data that specifically delineated between fantasy football participants and non-participants, as this facilitated direct comparisons between the two groups. After the data had been gathered and sorted by parameter, each parameter was evaluated to determine if there was any evidence of differences in behaviour patterns between fantasy football participants and non-participants. Each parameter was then individually discussed in light of these results to evaluate whether any differences that were found were plausibly attributable to participation in fantasy football. After each parameter had been analyzed in this way, it was possible to answer the overall research question of whether fantasy football participation has an impact on the behaviour of NFL fans.

Chapter 4: Results, Evaluation, & Analysis

1. Media Interaction

The parameters in this category examined the ways in which fans interact with media relating to the NFL. There are two sub-divisions of parameters within this category – quantity of media consumed and media consumption behaviour.

a) **Quantity of Media Consumed**

i) *Television Consumption*

A wide range of research was available on this aspect of NFL fan behaviour, which facilitated assessment from several different perspectives. When all of the papers that deal with the topic were examined, a broad consensus emerged that playing fantasy football is likely to increase consumption of televised material relating to the NFL. Multiple studies measured the comparative time spent watching either NFL games or all NFL-related material. All of these studies found that fantasy football participants spend more time watching NFL content than non-participants.

Table 1: Average hours spent per week watching NFL-related content on television (Woodward 2005, Comeau 2007, Lee 2007)

Study	Fantasy Football Participants	Fantasy Football Non-Participants	Marginal Impact of Fantasy Football
Comeau (2007)	9.05 hrs	5.28 hrs	+ 3.77 hrs
Lee (2007)	N/A	N/A	+2-3 hrs
Woodward (2005)	8.4 hrs	6.6 hrs	+ 1.8 hrs

Table 2: Number of NFL games watched per week (Corrigan 2007, Nesbit and King 2010)

Study	Fantasy Football Participants	Non-Fantasy Football Participants	Marginal Impact of Fantasy Football
Corrigan (2007)	4.45	2.86	+1.59
Nesbit & King (2010a): Avid fans	4.17	3.10	+0.59
Nesbit & King (2010b): Non-avid fans	2.31	1.71	+1.07

The results of the studies that used time as the measure of television consumption were supported by studies that approached the subject from a different angle. Lee, for example, found that as participation levels in fantasy football increased, so too did consumption of televised NFL content.

Table 3: Hours spent per week by fantasy football participants watching NFL games (Lee 2007)

Fantasy Football High-Level Participants	Fantasy Football Low-Level Participants	Marginal Impact of High-Level Participation
7-9 hrs	4-6 hrs	+ 1-5 hrs

Furthermore, Fortunato’s study showed that games which featured popular fantasy football players had higher television ratings.

Table 4: Television ratings of games featuring at least one player selected in most fantasy leagues (Fortunato 2011)

Sample	Strength of correlation with increased TV ratings (r-value)	
	Games featuring player(s) starting in >50% of fantasy leagues	Games featuring player(s) starting in >90% of fantasy leagues
NBC	N/A	+0.50
ESPN	+ 0.60	+0.50

There is thus a strong evidence base for a link between fantasy football participation and increased consumption of NFL-related television. There are several possible reasons that may explain why this is so. Fantasy football non-participants tend to form their attachments to NFL teams based on geographic or sentimental reasons, and are usually attached to only one or two teams. Non-participants thus have a direct interest only in games that either feature their favourite teams

or, in the case of games featuring rival teams, ones that have an impact on their favourite team's ranking. However, they will have no stake in the majority of games played in a given week and are less likely to watch those games on television. Fantasy football participants share an interest in their favourite NFL team, but also have a stake in several other games. In most fantasy leagues, owners designate at least eight players as starters each week. These players can be distributed across up to eight NFL teams, if an owner does not select two or more players from the same NFL team. These eight teams can be involved in up to sixteen separate NFL games in a given week if none of the eight teams are playing against each other in that round of fixtures. Sixteen fixtures is in fact the maximum amount possible in a single NFL game week, as there are only thirty-two teams in the league and teams never play more than one fixture per week. Therefore, under the right (albeit admittedly highly unlikely) circumstances, a fantasy football participant playing in a league in which eight players are started can have a direct interest in every NFL game played that week. If they play in a league in which nine or ten players are started instead of eight, the number of games per week that they have an interest in is almost certain to rise. This is only taking into account games which feature players selected on their own team; fantasy football participants are more likely to watch these games in the hope of seeing their players perform well. The corollary is that fantasy football participants may also wish to view games featuring players selected by their fantasy opponent for that week in the hope that these players perform poorly. This is because fantasy football is a zero-sum game: a point lost by one fantasy team is functionally the same as a point gained by their opponent. Fantasy football participants may also be interested in watching games featuring players that are on their fantasy team but who have not been designated as starters for that week, in order to judge whether those players should be promoted to starting status in future games. When all of this is taken into account, it is probable that fantasy football participants will have an interest in all but a handful of games in any given week, making it more likely that they will watch these games on television.

In addition to watching more overall games, fantasy football participants are likely to watch a given game for longer than a fantasy football non-participant. This is due to a difference in motivations for watching the game. Non-participants watch the game to witness the determination of the outcome – in other words, which team wins and which team loses. To fantasy football participants, however, the result is largely irrelevant if the game does not also happen to feature their favourite NFL team. Their interest in the game is instead based on the statistical performance of certain individuals. Due to the rules of American football, it is common for the result of a game to be determined long before the game clock has expired. After a team scores points, it is obligated to kick the ball off to the other team. A team can attempt to recover its own kickoff by kicking the ball

just beyond the minimum mandatory distance of ten yards and hoping that one of their players will get to it before an opponent does. However less than 20% of these attempts, known as ‘onside kicks’, are successful (Burke 2011). This greatly hinders teams from scoring multiple times in succession. Thus, if there is a large gap in the score between two teams when most of the game has already been played, the result can be a foregone conclusion. With the outcome of the game decided, non-participants in fantasy football may well choose to stop watching. The interest of fantasy football participants, however, is mostly unaffected by the game’s result. In fact, this period of a game can be remarkably fruitful in terms of fantasy points. The trailing team is likely to be playing with a very attacking mentality; even if there is little realistic chance of winning, narrowing the margin of defeat can help salvage some pride. The winning team, in contrast, is likely to have somewhat disengaged from the game. If victory is all but assured, coaches may send less talented backup defenders onto the field and give their established stars some rest. Even if the team does concede points, in that situation there are no significant negative consequences to doing so. For both of these reasons, the intensity and quality of defensive play tends to drop. This makes it easier for offensive players to gain yards and score extra fantasy points.⁵ Fantasy football participants therefore have good reason to continue watching a game to its conclusion, even if it has long since ceased being competitive in any meaningful way.

The final possible reason behind increased television consumption of fantasy football participants concerns identification. As shall be discussed in more detail later in this paper, fantasy football participants tend to have stronger levels of attachment than non-participants to their favourite team, to NFL coaches, and to the sport of American football. Each of these points of attachment may be linked to increased consumption of televised NFL material - particularly the stronger attachment of fantasy football participants to their favourite team. Strong identification by an individual with a particular team may manifest behaviourally in increased effort to view that team’s televised games. Fantasy football participants’ stronger identification with the sport of American football may also play some role in their increased television consumption, as this could make them more likely to view games as a neutral fan – in other words, fixtures that they have no direct stake in but watch nonetheless simply to enjoy the sport.

⁵ The period of a game after the margin of score has become insurmountable is colloquially known as ‘garbage time’. Statistics accrued by offensive players in this period are often derisively dismissed as ‘garbage yards’.

ii) Radio Consumption

Compared to television consumption, little research was available concerning radio consumption. This is unsurprising, given that radio was to a large extent supplanted by television as the dominant medium for news and entertainment – as reflected by the fact that Comeau’s results indicate that both fantasy football participants and non-participants spent far less time consuming NFL-related content on radio than they do on television. Nonetheless, his study did show a correlation between fantasy football participation and increased consumption of NFL-related content via radio.

Table 5: Average hours per week spent listening to NFL-related content on radio (Comeau 2007)

Fantasy Football Participants	Fantasy Football Non-Participants	Marginal Impact of Fantasy Football Participation
2.68 hrs	1.03 hrs	+1.65 hrs

To some degree, radio and television compete for the same market space, particularly in the context of the NFL. Both mediums are suitable for live broadcasting of games and analysis, and both are consumed passively rather than actively. Radio occupies a slightly different niche to television, as due to the lack of a visual element it requires even less engagement. This makes it easy to perform other activities, perhaps most notably driving, while listening to radio content. Due to the similarities between the two mediums, however, the reasons that underpin the increased consumption of NFL-related radio content by fantasy football participants are likely to be similar to the ones previously identified and discussed in the section on television consumption. To recap, fantasy football participants have an interest in more games, are less likely to switch off a game which one team is dominating, and may be more likely to tune in to their favourite team’s games due to their higher average levels of team identification.

iii) Print Media Consumption

Research conducted by Comeau indicated that there was no significant difference between fantasy football participants and non-participants in terms of quantity of NFL content consumed through newspapers or magazines. This may be a reflection of the nature of printed media, which as discussed in this section does not dovetail with the requirements of fantasy football participants in the same way that electronic media does.

There is some debate over whether fantasy football is a game of chance or a game of skill. A compelling point in favour of fantasy football being a game of skill is the amount of research typically undertaken by participants, both before the season in preparation for the draft and during the season while trying to decide which players to start in a given week (Holleman 2006). This research is undertaken by fantasy football participants in the hope of gaining an informational advantage over their competitors. For instance, on draft day it can be very helpful to know which lesser-known NFL players are likely to exceed expectations that year and, correspondingly, which high-profile players are in danger of not living up to reputation. Similarly, acquiring knowledge during the season can give a fantasy football participant the competitive edge over his opponent for that week. A savvy owner, for example, may choose to bench one of his players who is struggling with injury, start a player whose team is playing a weak opponent, or add a low-profile player to his roster who has the potential to perform well in the near future.

However, most of the information that is useful to fantasy football participants is dynamic, in a constant state of flux. Many fantasy football analysts will publish rankings of NFL players based on their predicted performances in the forthcoming game week. On online platforms, it is common for such rankings to be updated several times between their initial publication and the actual date of the games, as the analyst reacts to emerging news about injuries, weather, gameplans, and the myriad other things that could conceivably affect players' performances. Print media, by its very nature static and unresponsive, is simply incapable of matching the pace at which news emerges from the NFL world. A newspaper published on the morning of a game may contain the information that a player with injury concerns has around a 50% chance of playing. Such information is of little use to a fantasy football participant, as it essentially turns the decision of whether or not to start that player into a coin-flip. Electronic media, by contrast, can simply wait until shortly before kickoff – when NFL teams announce their starting line-ups– and then definitively state whether or not the player in question has been passed fit to play. This gives fantasy owners firm data on which to base their own line-up decisions. This disparity in usefulness between online and print media may explain why fantasy football participation has not been observed to have a correlation with the consumption of printed NFL content. As a source of fantasy football information, print media simply cannot keep up with its digital competitors. Since print media tends to have limited utility in regards to fantasy football, participation by a fan in fantasy football is unlikely to alter their pre-existing habits of print media consumption.

iv) *Internet Consumption*

Although only Comeau made a direct comparison between fantasy football participants and non-participants in terms of online consumption of NFL-related content, his results show a pronounced difference between the two groups. According to his study, the weekly time spent by fantasy football participants viewing online NFL content was more than four times greater than that spent by non-participants.

Table 6: Average hours spent per week viewing NFL-related content online (Comeau 2007)

Fantasy Football Participants	Fantasy Football Non-Participants	Marginal Impact of Fantasy Football Participation
4.33 hrs	0.92 hrs	+3.41 hrs

Although no other direct comparisons between participants and non-participants were available, there is indirect evidence that supports Comeau’s findings. Lee’s study found that almost all fantasy football participants go online at least once while watching an NFL game, with a large majority doing so five or more times.

Table 7: Fantasy football participants' internet habits while watching NFL games (Lee 2007)

Went online at least once	Went online five or more times
97.5%	79%

Qualitative evidence gathered by Woodward shows that web sites which add fantasy-specific content enjoy a jump in both hits and average length of visits (Woodward 2005). Given the nature of the content, it is safe to assume that the vast majority of this extra web traffic is accounted for by fantasy football participants.

The available evidence suggests a link between fantasy football participation and increased consumption of online NFL content. It seems logical that fantasy football participation would increase consumption of online NFL material, as playing fantasy football is almost inextricably tied to internet usage. As of 2008, 88% of fantasy football participants cited the internet as their main avenue for playing (Perry 2013). It is probable that this figure has risen since then; Perry notes that since the internet boom⁶, the amount of people playing fantasy football has steadily increased by

⁶ Perry does not specify a date for this ‘internet boom’.

about two million people per year. Although it has an impact on many other areas, fantasy football is at heart an online phenomenon.

The link between the internet and fantasy football is not surprising, given that the popularization of the latter was made possible by the former. It was (and of course still is) possible to run a fantasy football league offline, but several impediments arise with this format. Without computer aid, organizational matters such as holding a draft and compiling a fixture schedule were greatly complicated. One Reddit user shared their experience of pre-internet fantasy football, recounting that “everyone had to hold on to their draft sheets⁷ otherwise you had no idea who the other teams had on their rosters. Schedules had to be done by hand. Before the season started, you had to lay it out for each week ([Team] 1 vs. 10, 2 vs. 9, etc) and that could get confusing by week 6.” ('carter1984' 2013) Similar issues arose with the week-to-week business of fantasy football, most notably with obtaining reliable player statistics to calculate their fantasy score – which is the fundamental basis of any fantasy sport. As noted by the aforementioned Reddit user, it was difficult for fantasy football participants to keep track of their players' fantasy performances even while watching them live: “Scores were calculated using the box scores from the newspaper...you sometimes could only guess at how close a match was and had no idea who won until Mon/Tues. This was more of a b***h for the commish⁸ who had to do everyone's score.” ('carter1984' 2013) Fantasy football blogger Hans Steiniger offers insight into the difficulties presented by this system: “Back then, fantasy football leagues were on their own to convert NFL statistics to fantasy points every week. This had to be done by hand since there were no websites that automatically downloaded NFL stats for you. We had to find an unimpeachable fantasy football statistics resource... the *USA Today* newspaper. Our commissioner would spend Monday night looking up what players did over the weekend in the newspaper in order to converting (*sic*) their stats into fantasy points. One player at a time, one team at a time. This process took hours.” (Steiniger 2007)

Issues like these were significant barriers to participating in fantasy football, and likely played a large role in keeping it a niche activity for much of its existence. According to Steiniger, “Fantasy football was like an underground club. Not many people knew about it, even fewer knew what it was. When you said you were going to a fantasy football draft back then, people looked at you like you were going to play *Dungeons & Dragons* with the other geeks.” (Steiniger 2007) The arrival of ubiquitous internet access around the turn of the millennium paved the way for the

⁷ 'Draft sheets' are the self-compiled notes frequently used by participants during a fantasy football draft, serving as a handy reference for information such as their personal rankings of players. Before specialized draft software became available, it was common practise to write down draft selections on this sheet as they occurred.

⁸ Commissioner – the person responsible for administrating a particular fantasy league

popularization of fantasy football by removing these barriers almost at a stroke. CBS successfully launched the first website dedicated to hosting fantasy football leagues in 1997. Within a few years most major sports media corporations had followed suit, and in 2010 the NFL launched an online platform for their official version of the game. The software used by these websites boasted features that automated organizational aspects of fantasy football such as the draft, calculation of player scores, and roster management, which made participating in leagues far more convenient. The popularity of fantasy football exploded as a result, quickly growing into the cultural phenomenon it is today. The automated calculation of scores was a particularly important evolution. Instead of waiting days to find out who had won, owners were able to follow the twists and turns of their fantasy matchups as live events, as player statistics and fantasy scores were updated onscreen within minutes of the actual events.

The internet thus became the main medium through which fantasy owners interact with and follow their fantasy team and league, which is one of the reasons underlying the extra time spent by fantasy football participants consuming NFL-related content online. However, this only partially accounts for the gap between fantasy football participants and non-participants. While logged into their fantasy football platform, owners spend time setting line-ups, adding and dropping players, proposing and responding to trade offers, following the scores of their matchups, and generally attending to the management of their team. These periods spent online are directly caused by their involvement in fantasy football. However it is likely that even longer periods online are indirectly caused by fantasy football involvement. As touched on in the print media section above, the best way for an owner to gain a competitive edge in fantasy football is to have an informational advantage over their rivals. This is because fantasy football can be regarded as a test of each owner's knowledge of American football and the NFL. The most important predictor of a player's performance is their own talent, but there are many other influences on their statistical output. A highly skilled wide receiver⁹, for example, may produce statistics far below his talent level if he plays with a quarterback who is incapable of consistently throwing accurate passes to him. Fantasy football participants have thus learned to take the quality of teammates into consideration when evaluating a player's fantasy prospects, along with circumstances such as injury status, strength of opposing teams, recent form, and a near-infinity of other factors. By gathering such information, owners hope to be able to more accurately predict players' performances, which enables them – theoretically at least - to select better fantasy teams than their rivals.

⁹ 'Wide receiver' is the positional name given to NFL players whose main responsibility is to advance the ball by catching passes thrown by the quarterback.

This information, however, has to come from somewhere. The amount of content that can be delivered by TV and print media is capped due to, respectively, limits imposed by airtime and the physical dimensions of pages. These limitations frequently restrict mass media to providing generalized overviews of the subjects covered. The internet, however, can deliver as much content as a person is willing to consume, and can delve into great detail on almost any imaginable topic. This allows for the production of comprehensive content aimed at very specific demographics – for instance, fantasy football participants. The internet is also considerably more flexible and amendable than other forms of mass media, with online stories being constantly updated as new information becomes available. In the context of fantasy football, this is particularly useful for time-sensitive information such as injury statuses of players and gameday weather reports. In contrast, print media and pre-recorded TV segments can contain information that is already out of date by the time it reaches the intended end users, due to the considerable time lag between production and consumption.

Another point in favour of the internet is its responsiveness – in other words, the ability of its users to tailor online content to suit their needs. While there is a wealth of information available about fantasy football, only a relatively small percentage of it will be relevant to any particular fantasy football participant. In any single fantasy football league, a total of a few hundred players will be owned by the constituent participants. However, the owner of any particular team is likely to only be directly concerned with the fifteen or so of these players who are on their roster. Online, it is reasonably straightforward to filter content in order to locate news and analysis relating only to specific players. For example, a fantasy football participant may enter the names of their players into a search engine along with a keyword such as ‘fantasy’ to return news and opinion about those players’ fantasy outlook. In contrast, consumers of traditional mass media cannot customize their experience apart from choosing what television program to watch or which newspaper to buy. Beyond this, offline media consumers are at the mercy of editorial decisions made by others. And regardless of which programme or publication they choose, only a small proportion of the content is likely to concern the players that a fantasy football participant has on their roster.

The internet offers content that is specific, detailed, and up to date. This has made it the research tool of choice for fantasy football participants. And since additional knowledge of the NFL can translate to a higher chance of success in fantasy leagues, those who take part in them are incentivized to spend more time online carrying out fantasy-related research. This, combined with the fact that the web is the primary gateway through which owners manage their fantasy teams, accounts for the extra time which Comeau found that fantasy football participants spend consuming

NFL content online compared to non-participants. That the gap is so large is reflective of the general importance of the internet to fantasy football.

b) Media Consumption Behaviour

i) Involvement in Media

Comeau conducted a study of the depth of fan involvement in media content pertaining to the NFL. He divided fan involvement into three aspects – cognitive, behavioural, and affective. He found that fantasy football participants reported higher levels than non-participants in all three aspects of involvement when consuming NFL-related media.

Table 8: NFL fans' levels of involvement in media (Comeau 2007)

Type of involvement	Fantasy Football Participants	Fantasy Football Non-Participants	Marginal Impact of Fantasy Football
Cognitive	3.80	3.06	+0.74
Behavioural	4.35	3.44	+0.91
Affective	3.33	2.90	+0.43

For the purpose of this section, NFL content is divided into 'primary' and 'secondary' content. 'Primary content' is comprised solely of the broadcast of NFL games – games are, after all, the central product of any professional sports organization. 'Secondary content' comprises all news, opinion, analysis, predictions, and reviews which relate to the NFL. The cognitive aspect of the study examined the level to which fans paid attention to and thought about NFL content. It is logical to presume that fantasy football participants pay more attention to secondary content than non-participants. For non-participants, it is likely that secondary content is simply entertainment, a pleasurable method for passing time. Secondary content is also entertainment for fantasy football participants, but it may serve a further purpose as research material for fantasy football. They are likely to give extra consideration to the content they are consuming, in order to deduce possible implications for their fantasy team. Similarly, when consuming primary content – i.e., watching games – a non-participants' interest will mostly be limited to the outcome of the contest. Fantasy football participants will also be interested in this aspect of games, but will in addition be paying increased attention to individual players, as it is their statistical production that will dictate the outcome of fantasy football games. Participants closely follow the performance of players that they

have selected for their fantasy football team, in the hope that their choice of players will be vindicated and rewarded.

The behavioural aspect of Comeau's study examined the level to which NFL fans discuss the content of media with others. The study's results showed a positive correlation between fantasy football participation and behavioural involvement in NFL-related media, which may be at least partly attributable to the social aspect of fantasy football. As noted in Chapter 2 of this paper, fantasy football leagues tend to be formed mostly of people who know each other. Dwyer and Kim's study found that one of the major motivations of fantasy football participation is social interaction, and that many participants are 'driven by the social connection and group affiliation with other league members in the form of friends, family, co-workers, or acquaintances.' (Dwyer and Kim 2011) Perry argues that this social aspect is such an integral part of fantasy football that the game can be regarded as 'a pioneer in social networking...even before MySpace and Facebook.' (Perry 2013) Perry provides statistics to support this argument: forty per cent of fantasy participants claim that playing fantasy football increased their workplace camaraderie, while thirty per cent of participants state they made new friends through playing fantasy football. It is easy to imagine the content of the social interactions between friends and family caused by fantasy football; people whose fantasy teams are playing each other may swap banter while watching the NFL games that will decide the outcome of their match, while owners haggling over a potential trade of players may use NFL opinion and analysis as evidence to support the supposed fairness of their offers and counter-offers. It is likely that these extra social interactions caused by fantasy football participation are responsible for the increased behavioural involvement with NFL content exhibited by fantasy football participants.

Affective involvement, the final aspect of Comeau's investigation of fans' media involvement, concerns the extent of emotional response caused by consuming NFL-related media. As with both other aspects of media involvement, fantasy football participants report greater affective involvement in NFL content than non-participants. The reasons behind this are likely similar to the ones that underpin the increased cognitive involvement associated with fantasy football participation – namely, fantasy football participants tend to have more sources of interest in NFL content than non-participants. While watching a game involving their favourite NFL team, a fantasy football non-participant will experience happiness if their team scores. However, a fantasy football participant would experience the happiness attributable to their favourite team scoring, plus extra happiness if it happened to be a player on their fantasy team who scored. A traditional fan is likely to be displeased if, conversely, their favourite team concedes points. A fantasy football participant

would probably share this displeasure; however, they may also have an added emotional reaction of ‘guilty pleasure’ if it is a player that they own who scores against their favourite team.¹⁰ The difference in affective involvement could conceivably extend to secondary – i.e. non-game – NFL content. For example, a fantasy football non-participant will react negatively to the news that a player on their favourite team will miss the rest of a season due to injury. However, their unhappiness will be mitigated by the fact that, in general, no single player on an NFL team is integral to that team’s overall performance.¹¹ NFL teams can have more than fifty players on their roster at any time; it is expected that one of these players will step up and fill the void left by the injury to avoid a dramatic drop in performance. However, fantasy football differs from real-life football in that it is very common for a single player to be crucial to the success of a fantasy team, due to the comparatively small size of rosters. If a fantasy team loses one of its top performers to injury, its chances of success are likely to be severely undermined – commensurately, a fantasy football owner is likely to react to such news with greater unhappiness than a traditional fan hearing of an injury to a player on their favourite team. Fantasy football adds an extra set of considerations for participants to respond to; this is reflected by the positive correlation between fantasy football participation and affective involvement.

ii) Pre-Exposure Selectivity of Media

Comeau’s paper examined NFL fans’ pre-exposure selectivity of media – in other words, the advance knowledge that fans have about the media that they will use to consume NFL-related content. This is measured in terms of knowledge of which media outlet will provide content, what content will be available, and when the content will be available. Comeau’s results showed that fantasy football participants and non-participants do not differ significantly in their pre-exposure selectivity of NFL-related media. This result is somewhat surprising; given that fantasy football participants tend to consume more NFL-related media and are generally more involved with NFL content, one might expect that fantasy football participants would exhibit more focused intent and greater awareness of media. There seems to be no obvious reason to explain why this is not the case. Further research may be needed in this area.

¹⁰ Instances of ‘guilty pleasure’ like the one described in this hypothetical example are a source of ire to critics of fantasy football, who contend that no true fan would be happy, for any reason, to see their team concede points.

¹¹ With the possible exception of the quarterback; for reasons that are unlikely to be of interest to the general reader, quarterbacks are disproportionately valuable to the success of NFL teams.

iii) Type of Content Consumed

Very little data was available to evaluate the comparative types of content consumed by fantasy football participants and non-participants. However, there is some indirect evidence to support a hypothesis that fantasy football participants and non-participants consume different types of content. Woodward’s paper notes that it has become common for newspapers to include content in their sports sections that contains little or no news or opinion relating to the outcome of NFL games, instead focusing on fantasy football analysis. Such columns contain speculation ‘on which players might be fantasy studs or duds, whom [owners] should trade away or trade for, whom they should start or bench, or how to win a fantasy league.’ (Woodward 2005) Similarly, Woodward notes that many TV channels have started airing shows devoted almost exclusively to dispensing advice on fantasy football. It seems logical to presume that media outlets would not offer this type of content if there was no demand for it. This position is supported by the fact that webmasters and TV producers interviewed by Woodward reported noticeable increases in, respectively, web traffic and viewership after they began offering fantasy-specific content (Woodward 2005). As previously discussed in this paper, it is likely that these increases in audience are accounted for by fantasy football participants, since people who do not play fantasy football have little reason to be interested in advice on that topic. In the absence of direct evidence, however, it cannot be conclusively stated whether or not fantasy football participants and non-participants consume different types of media content. Further research may be needed in this area.

iv) Choice of Games Watched

Results of a survey carried out by Corrigan indicated that fantasy football participants are much more likely than non-participants to watch multiple simultaneous NFL games.

Table 9: Percentage of NFL fans who report watching multiple simultaneous games 'often' or 'whenever possible' (Corrigan 2007)

Fantasy Football Participants	Fantasy Football Non-Participants
75%	26%

The response to this survey was corroborated by Corrigan’s findings that a significantly higher proportion of fantasy football participants subscribed to NFL Sunday Ticket, a service which facilitates watching multiple NFL games.

Table 10: Percentage of NFL fans who subscribe to NFL Sunday Ticket - a TV package which enables subscribers to view any NFL game (Corrigan 2007)

Fantasy Football Participants	Fantasy Football Non-Participants
40%	14.1%

Although he does not include the relevant empirical data in his paper, Dwyer states that the results of his study indicate that fantasy football participants are more likely to both watch games that do not feature their favourite team and switch back and forth between games being simultaneously broadcast (Dwyer 2011). A fantasy football participant interviewed by Drayer et al discussed the effect fantasy football had had on the viewing habits of he and his friends, recounting that “We’ll have multiple TVs set up and watch a number of games. . .we follow fantasy players from other teams. It definitely plays a major part in what games we watch.” (Drayer, Shapiro et al. 2008)

The increased propensity of fantasy football participants to watch multiple simultaneous games is closely interrelated with their increased overall consumption of televised NFL games discussed earlier in this paper and their increased interest in NFL teams other than their favourite one, which is discussed in more detail below. The fundamental reason behind each of these phenomena is that fantasy football participants have a direct stake in more games than non-participants. American football is by its nature a stop-start sport, with short bursts of play separated by frequent ad breaks and game stoppages. Dwyer notes that a typical NFL game broadcast of three hours contains only eleven minutes of actual game action (Dwyer 2011). Despite these frequent interruptions, a fantasy football non-participant watching their favourite team is likely to stick with that game through the various stoppages, as their main motivation for watching is to observe whether or not their favourite team will win. Since they have little interest in other games beyond how their outcome affects their favourite team, non-participants are unlikely to switch to those games while their favourite team is playing, even during breaks in play.

Fantasy football participants, by contrast, have an interest in many games, since the players on their fantasy team are likely to be distributed across a wide range of NFL teams. When watching a game that is stopped for commercials or other interval, fantasy participants have more motivation to switch to another game rather than waiting for action to resume in the one they are currently watching. Broadcasters of NFL games have already reacted to this behavioural difference between

fantasy football participants and non-participants. The introduction of NFL Sunday Ticket mentioned above is one such reaction; another is NFL RedZone, a service which essentially automates the process of switching between simultaneous games. Lee argues that services like these are a direct response to the predilection of fantasy football participants for watching multiple games concurrently (Lee 2007).

2. Fan Identification

The parameters in this category examine the identification of NFL fans with their favourite team, with other teams, with players, and with other points of attachment.

i) Team Identification

Team identification was a particularly important area of research for this paper. As discussed in the introduction, it is a commonly held belief among both members of the media and NFL players that playing fantasy football weakens the loyalty of participants to their favourite team. There is, on the surface, a certain amount of logic to this stance, the argument being that interest and affection shown by fantasy football participants to their fantasy team is interest and affection that has been diverted away from their favourite real-life team. However, the available empirical data does not bear this out – quite the opposite, in fact. Corrigan’s study showed that fantasy football participants identify more strongly with their favourite team than non-participants. His results also showed that nearly 60% of fantasy football participants identify with their favourite team to a high degree, compared with just 19% of non-participants.

Table 11: Identification levels of NFL fans with favourite team on a scale of 1-7 (Corrigan 2007)

Fantasy Football Participants	Fantasy Football Non-Participants	Marginal Impact of Fantasy Football
5.61	4.26	+1.35

Table 12: NFL fans categorized by level of identification with favourite team (Corrigan 2007)

	Low Identification	Medium Identification	High Identification
Fantasy Football Participants	14.2%	26.4%	59.4%
Fantasy Football Non-Participants	42.5%	38.5%	19.0%

Independent studies by Lee and Dwyer found that higher levels of fantasy football participation are correlated with stronger team identification. Overall, the body of evidence suggests a positive correlation between fantasy football participation and fan identification with their favourite team.

Table 13: Fantasy football participants' level of identification with favourite team (Lee 2007, Dwyer 2011)

Study	Lowly Involved Fantasy Football Participants	Highly Involved Fantasy Football Participants	Marginal Impact of Higher Levels of Participation
Dwyer 2011 (Scale: 4-28)	23.857	25.949	+02.092
Lee 2007 (Scale: 1 - 7)	4.84	4.95	+0.15

These results suggest that critics of fantasy football may be misperceiving both its relationship with NFL fanship and the nature of NFL fanship itself. An individual's interest in the NFL is not a finite quantity that is fractured by fantasy football into smaller separate interests in their favourite real-life team and fantasy team. Rather, it seems that fantasy football participation serves as an extension of interest in the NFL, adding a new source of interest without subtracting from existing ones. This hypothesis is borne out by Lee's interviews with participants in his study, several of whom claimed that fantasy football had broadened their interest in the NFL without diminishing their affection for their favourite team (Lee 2007).

While this may explain why there fantasy football does not negatively affect team identification, it does not necessarily explain the observed positive correlation between the two. There is no obvious mechanism that might allow fantasy football participation to cause increased identification with a favourite team. It seems more likely that the causation is other way round;

people who are more strongly identified with an NFL team are likely to be committed fans who draw enjoyment from watching both that team in particular and, although perhaps to a lesser extent, the NFL in general. These fans may choose to participate in fantasy football as a way to further enhance their pre-existing enjoyment of watching the NFL. Such a trend would explain the positive relationship between fantasy football participation and team identification.

ii) Interest in Multiple Teams

While no quantitative data was available that directly dealt with the subject of NFL fan interest in multiple teams, several papers contained relevant qualitative data. Survey participants interviewed by Lee expressed the opinion that playing fantasy football had broadened their knowledge of, and interest in, NFL teams outside of their favourite one. One participant said “It has greatly increased my fandom of the NFL...Knowing about every team's skill players¹² has improved my knowledge and interest in the games.” Another participant said “Fantasy football allowed me to become a bigger fan of the league in general [because] I get to root for more players across the league since they are on my team.” Lee reports that these answers are representative of the overall response to his survey (Lee 2007). Fantasy football participants interviewed by Drayer et al gave similar responses. He quotes a fan of the Minnesota Vikings as saying “Since I’ve started playing fantasy football, I will watch more games. Before, I would just watch the Vikings...but I’d say now, I’ll watch more games because I have a lot more players to care about.” Many of the fans interviewed in this study, however, said that their interest in other teams lasted only as long as players from those teams were on their fantasy roster (Drayer, Shapiro et al. 2008).

Dwyer and Kim’s study of the motivations of fantasy football participation found that a major motivational factor was that it provided ‘an excellent the opportunity to enjoy the performances of NFL players who are not on [participants’] favourite NFL team(s)’ (Dwyer and Kim 2011). In a separate paper, Dwyer reports that fantasy football participation ‘appears to re-distribute the traditional, singular, team-centric behaviour throughout the entire league’ (Dwyer 2011).

Although no quantitative data was available, the qualitative evidence unanimously indicates that participation in fantasy football leads to an increase in interest in teams other than the participants’ favourite one. The mechanism for how it does so is straightforward; in order to follow the fortunes of the various players that comprise their fantasy team, fantasy football participants

¹² ‘Skill players’ are those who play in the positions on offense that typically account for the vast majority of offensive statistics.

frequently watch games featuring the real-life teams of those players. They may also consume news and opinion about those teams with added scrutiny in order to ascertain any potential impact on the fantasy performances of the players that they own. This added exposure to other teams gives fantasy football participants the opportunity to develop interest in teams that they would otherwise have had little reason to pay attention to, making it more common for them to have an interest in multiple teams across the NFL.

iii) Individual Player Identification

Although quite a lot of data was available on team identification of NFL fans, surprisingly little was available on identification with individual players. Corrigan’s was the only paper which provided quantitative data from a direct comparison between fantasy football participants and non-participants. His results indicate that fantasy football participants identify more strongly with individual NFL players than non-participants.

Table 14: Identification of NFL fans with individual players on a scale of 1-7 (Corrigan 2007)

Fantasy Football Participants	Fantasy Football Non-Participants	Marginal Impact of Fantasy Football
5.48	4.30	+1.18

Drayer et al asked the fantasy football participants were the subject of their study about the effects that fantasy football had had on their feelings towards individual players. One participant responded that “I think that I learned a little bit more about L.T.¹³ than I might have known before. I’ll go to other newspaper websites. . .and when I drafted him I read up on him and realized that this isn’t just a really good football player, but a really good person. He’s very active in the San Diego community. I didn’t know that before and I might not have known that if I hadn’t had the good fortune of drafting him.” (Drayer, Shapiro et al. 2008)

Since fantasy football is a game that revolves around the statistics of individual players, participants are incentivized to pay closer attention to news and analysis concerning the individuals on their fantasy team and may develop stronger identifications with them – as illustrated by the above quote from one of the subjects of the study by Drayer et al. Fantasy football non-participants,

¹³ LaDainian “L.T.” Tomlinson, a vaunted running back for the San Diego Chargers.

by contrast, are primarily concerned with the overall performance of their real-life team and may be less inclined to pay close attention to particular individuals and develop strong attachments. This is reflected in the higher average identification with individual players of fantasy participants compared to non-participants.

iv) Other Points of Attachment

Teams and individual players were the main points of attachment focused on in Corrigan’s study of NFL fan identification, but he identified several secondary points of attachment as criteria for comparing fantasy football participants with non-participants; attachment to coaches, attachment to the sport of American football, and attachment to the NFL level of play. He found that participants identify more strongly with individual coaches and the sport of American football than non-participants, and that the two groups were roughly similar in their levels of identification with the NFL level of play.

Table 15: Identification of NFL fans with secondary points of attachment to the NFL (Corrigan 2007)

	Fantasy Football Participants	Fantasy Football Non-Participants	Marginal Impact of Fantasy Football
Attachment to NFL coaches	3.72	2.91	+0.81
Attachment to American football	5.37	4.49	+0.88
Attachment to NFL level of play	3.99	3.65	+0.34

The stronger attachment of fantasy football participants to NFL coaches is unsurprising. There are very few, if any, sports where coaches have as much direct influence on games as in American football. Since each game consists of short bursts of play with breaks in between, coaches are able to constantly relay precise instructions to their players on the field. This means coaches play an even bigger part than in most sports in shaping a team’s style and strategy. Some coaches gain reputations for being aggressive and offensive-minded, while others may prefer a more conservative, low-risk approach. Players who play for the former type of coach are likely to be more

statistically productive, and therefore more valuable in fantasy football terms, than those who play for the latter type. Fantasy football participants thus have good reason to observe coaches closely to discern their strategic tendencies and consider how they may impact on the fantasy football potential of players under their stewardship. The stronger attachment of fantasy football participants to NFL coaches may be a manifestation of this extra attention and exposure.

It is also natural that fantasy football participants have a stronger attachment than non-participants to the sport of American football. Fantasy football is a pastime that requires both knowledge of the NFL and a significant time commitment. Because of these pre-requisites, participants tend to be people with a high level of NFL knowledge and a willingness to invest extra leisure time into an NFL-related activity, and are almost certain to draw enjoyment from American football. This is corroborated by the higher average attachment of fantasy football participants to American football.

Given that they are more strongly attached to the sport of American football in general, it may seem inconsistent that fantasy football participants do not clearly exhibit a stronger attachment than non-participants to the NFL level of play. However, it is likely that this simply reflects the fact that, given their stronger attachment to the sport, fantasy football participants are likely to enjoy consuming American football regardless of the level of play. Fantasy football non-participants, in contrast, are a group that is likely to contain more casual fans whose interest does not extend below the highest level of the sport – in other words, the NFL.

Chapter 5: Conclusion

This research paper set out to evaluate whether fantasy football participation has an impact on the behaviour of NFL fans. It did so by identifying twelve criteria that fell into two broad categories – fan interaction with NFL-related media and fan identification. The former category was broken down into two sub-divisions; quantity of NFL-related media consumed by fans and fan behaviour while consuming NFL content. Fantasy football participants and non-participants were then compared using the twelve selected criteria.

Four criteria fell into the sub-division of fan interaction with media that concerned quantity of NFL-related media consumed by fans. These criteria examined the quantities that NFL fans consumed of television, radio, print media, and internet. There was strong evidence of a positive correlation between fantasy football participation and increased consumption of three of these media types – television, radio, and internet. No correlation was observed between fantasy football participation and print media consumption.

The next four criteria comprised the sub-division of fan interaction with media that examined fan behaviour while consuming NFL-related content. Research in this area indicated that fantasy football participants have higher levels of psychological involvement with NFL-related content than non-participants and are more likely to watch multiple simultaneous games. However, participants and non-participants did not significantly differ in levels of pre-exposure selectivity of media – both groups exhibited similar advance knowledge of the media that they intended to use for consumption of NFL content. Based on available evidence, it was deemed probable but inconclusive whether fantasy football participants consume different types of content to non-participants.

The final four criteria employed by this paper looked at fan identification. Each of these four criteria showed evidence of an impact related to fantasy football participation. On average, fantasy football participants identified more strongly than non-participants with their favourite real-life NFL team, were more likely to have an interest in multiple teams, and identified more strongly with individual NFL players. The final criterion dealt collectively with minor points of attachment; fantasy football participants identified more strongly than non-participants with NFL coaches and the sport of American football, while participants and non-participants had roughly equal levels of attachment to the NFL level of play.

This paper was somewhat limited by its reliance on secondary data gathered by others. Had primary data been collected, it would have been more directly relevant to the twelve identified

criteria of fan behaviour that were examined by this paper. However, of these twelve criteria, strong evidence was available of fantasy football participation having a discernible impact on nine. For another two criteria, the available evidence indicated that fantasy football participation did not have a significant impact. There was insufficient evidence to conclusively state whether fantasy football participation affected the type of content consumed by fans; this is an area in which further research may perhaps be undertaken. The criteria selected to evaluate fan behaviour fell into the three areas; quantity of media consumed by NFL fans, NFL fan behaviour while consuming NFL content, and NFL fan identification. Each of these three areas had at least two criteria where evidence was found of an impact correlated with fantasy football participation. The available evidence is sufficient for this paper's research question to be answered with a high degree of confidence; fantasy football does indeed have an impact on NFL fan behaviour.

List of Tables

Table 1: Average hours spent per week watching NFL-related content on television (Woodward 2005, Comeau 2007, Lee 2007)	15
Table 2: Number of NFL games watched per week (Corrigan 2007, Nesbit and King 2010).....	16
Table 3: Hours spent per week by fantasy football participants watching NFL games (Lee 2007)	16
Table 4: Television ratings of games featuring at least one player selected in most fantasy leagues (Fortunato 2011).....	16
Table 5: Average hours per week spent listening to NFL-related content on radio (Comeau 2007) ...	19
Table 6: Average hours spent per week viewing NFL-related content online (Comeau 2007)	21
Table 7: Fantasy football participants' internet habits while watching NFL games (Lee 2007)	21
Table 8: NFL fans' levels of involvement in media (Comeau 2007).....	25
Table 9: Percentage of NFL fans who report watching multiple simultaneous games 'often' or 'whenever possible' (Corrigan 2007)	28
Table 10: Percentage of NFL fans who subscribe to NFL Sunday Ticket - a TV package which enables subscribers to view any NFL game (Corrigan 2007).....	29
Table 11: Identification levels of NFL fans with favourite team on a scale of 1-7 (Corrigan 2007).....	30
Table 12: NFL fans categorized by level of identification with favourite team (Corrigan 2007)	31
Table 13: Fantasy football participants' level of identification with favourite team (Lee 2007, Dwyer 2011)	31
Table 14: Identification of NFL fans with individual players on a scale of 1-7 (Corrigan 2007).....	33
Table 15: Identification of NFL fans with secondary points of attachment to the NFL (Corrigan 2007)	34

References

- 'carter1984' (2013). "So who here played fantasy football before the internet? How was your experience then compared to today's?." Retrieved 15/02, 2014, from http://dd.reddit.com/r/fantasyfootball/comments/1kzw3k/so_who_here_has_played_fantasy_football_before/.
- Burke, B. (2011). "So Crazy, It Just Might Work - A pro football conundrum: does it make sense to start overtime with a surprise onside kick?". Retrieved 11/02, 2014, from http://www.slate.com/articles/sports/sports_nut/2011/01/so_crazy_it_just_might_work.html.
- Comeau, T. O. (2007). 'Fantasy Football Participation and Media Usage'. Department of Communication, University of Missouri-Columbia. **Doctor of Philosophy**.
- Corrigan, T. (2007). 'Fantasy Fans-- Comparing Team Identification Among Fantasy Football Players and Non-Fantasy Football Players'. Department of Communication, Florida State University. **Master of Science**.
- Drayer, J., et al. (2008). "The Effects Of Fantasy Football Participation on NFL Consumption: A Qualitative Analysis." Sport Management Review **16**.
- Dwyer, B. (2011). "Divided Loyalty? An Analysis of Fantasy Football Involvement and Fan Loyalty to Individual NFL Teams." Journal of Sport Management **25**: 445-457.
- Dwyer, B. and Y. Kim (2011). "For Love Or Money: Developing a Motivational Scale of Fantasy Football." Journal of Sport Management **25**: 70-83.
- Fabiano, M. (2014). "'Roger Goodell touts growing impact of fantasy football'." Retrieved 19/02, 2014, from <http://www.nfl.com/fantasyfootball/story/0ap2000000311267/article/roger-goodell-touts-growing-impact-of-fantasy-football>.
- Fortunato, J. A. (2011). "The Relationship Of Fantasy Football Participation With NFL TV Ratings." Journal of Sport Administration & Supervision **3**(1): 74-90.
- Garber, G. (2006). "Fantasy Craze Produces Awkward Moments For Players." Retrieved 29/01/14, from http://sports.espn.go.com/nfl/columns/story?columnist=garber_greg&id=2684942.
- Holleman, M. C. (2006). "Fantasy Football - Illegal Gambling or Game of Skill?" North Carolina Journal of Law & Technology **8**(1): 59-80.

Lee, J. (2007). 'The Effects Of Fantasy Football Participation On Team Identification and NFL Fandom', Louisiana State University and Agricultural and Mechanical College. **Master of Mass Communication**.

NBC Sports (2009). "'Maurice Jones-Drew Apologizes to Fantasy Owners'." Retrieved 29/01/14, from <http://profootballtalk.nbcsports.com/2009/11/15/maurice-jones-drew-apologizes-to-fantasy-owners/>.

Nesbit, T. M. and K. A. King (2010). "The Impact of Fantasy Sports on Television Viewership." Journal of Media Economics **23**: 24-41.

Perry, D. (2013). "Fantasy Football and the First Fifty Years: The Game That Forever Changed the Landscape of the National Football League, 1963-2013." CLA Journal **1**: 128-147.

Steinberg, L. (2012). "'Fantasy Football Madness'." Retrieved 01/02, 2014, from <http://www.forbes.com/sites/leighsteinberg/2012/08/28/fantasy-football-madness/>.

Steiniger, H. (2007). "'The Early Days of Fantasy Football'." Retrieved 15/02, 2014, from <http://www.fantasyfootballmanifesto.com/Early-Days.htm>.

Woodward, D. (2005). 'A Whole New Ballgame? How Fantasy Sports Has Evolved In Mass Media', University of Texas at Arlington. **Master of Arts in Communication**: 129.