The Effects of Second Screen Use

on the Enjoyment of the Super Bowl

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Abstract

Given the prevalence of second screen use, both scholars and industry professionals have become increasingly interested in its impact in different media contexts. While many of the previous studies have addressed cognitive outcomes, few have addressed effects beyond those. The current study addresses this void by exploring how second screen use affects the enjoyment of watching the Super Bowl. Some key factors explored in this study include how frequently viewers used a second screen during the game, whether the second screen activity was related or unrelated to the game, and the consistency between a viewer's second screen uses and their motivations for watching the game. The study's findings suggest that while general frequency of second screen use is negatively related to enjoyment, related second screen use positively predicts enjoyment. Furthermore, the greater the consistency between viewers' second screen uses and motivations for viewing the game, the greater their enjoyment is.

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Introduction

In recent years, media multitasking–the simultaneous use of two or more media (Voorveld & Viswanathan, 2014)–has become pervasive in the daily lives of media consumers. Forty-six percent of smartphone users and 43% of tablet users reported in a recent Nielsen survey that they use mobile devices as a second screen while watching TV everyday (Nielsen, 2013a). Additionally, according to Google's New Multi-Screen World Study (2012), 90% of all media interactions are screen based–smartphone, laptop, tablet, and television–with consumers averaging three different screen combinations a day (e.g. television with smartphone). This explosion of media multitasking has not gone unnoticed by industry and media professionals. Numerous industry reports and academic studies have emerged, seeking to understand this growing phenomenon (Giglietto & Selva, 2014; Google, 2012; Nielsen, 2013a; Van Cauwenberge et al., 2013).

Media multitasking has also gained traction in media effects research with studies exploring the effects of media multitasking on outcomes such as factual recall of television news programs (Van Cauwenberge et al., 2014), task performance (Wang & Tchernev, 2012), comprehension of reading assignments (Lee et al., 2011), and attitude and opinion (Cameron & Geidner, 2014). The approach most scholars have taken in this vein of research has roots in cognitive psychology with a focus on cognitive abilities. Congruent with past research, the current study also takes a psychological approach, expanding the media multitasking literature by exploring the effects of second screen use on the enjoyment of televised sports.

With entertainment television, and more specifically sports, learning outcomes may not be of foremost interest to stakeholders such as media companies and advertisers. This study focuses on enjoyment because it is oftentimes a viewer's enjoyment that is ultimately what keeps them tuning in each year (Nabi & Krcmar, 2004). Sporting events like the Super Bowl draw massive ratings making it an ideal program for advertisers, with the 2015 Super Bowl drawing the largest recorded TV audience in history at 114.4 million viewers (Pallotta, 2015). Given the amount of money companies spend on these ads–$4.5 million per 30-second spot for this year's Super Bowl (Perlberg & Plank, 2015)–understanding how second screen use affects viewers' enjoyment should be of particular interest to them.

This study focuses on sports viewers because sports fans tend to be among the most active groups on social media and this level of activity has become both a concern of, and a potential opportunity for, sports organizations. According to Nielsen's SocialGuide Unit Senior VP Sean Casey, "sports events comprise somewhere between 2 and 3 percent of TV programming in any given month, but generate close to 50 percent of the Twitter activity" (Goel & Stelter, 2013). There is even a social networking site, Fancred, which is dedicated solely to sports fans (Fancred.com). Sports and media organizations acknowledge that fans and viewers will multitask and as a result, industry professionals are exploring options of how best to leverage second screen opportunities (Mickle, 2014; Moses, 2013).

In order to truly optimize the second screen experience, however, it is important to first understand how media multitasking affects the primary experience, in this case, watching the mediated sporting event.

Literature Review

Second Screen and Media Multitasking

With smartphone penetration continually rising—76.6% of the US population as of 2015 (comScore, 2015)—media effects scholars have become increasingly interested in the effects of media multitasking. Today, it is commonplace for television viewers to use a smartphone, tablet, or computer while watching a program. These devices are termed "second screens." Nielsen has found that smartphone and tablet users are using their second screens while watching television in various capacities. Second screen users are surfing the web (49% of smartphone users, 66% of tablet users); shopping (24%, 44%); checking sports scores (27%, 29%); looking up actors, plots, athletes, etc. (29%, 41%); emailing/texting friends about program (29%, 23%); reading discussion about TV program on social media (12%, 18%); buying a product/service advertised (7%, 14%); and voting or sending comments to a live program (9%, 12%) (Nielsen, 2014).

Given the prevalence of second screen use, some professionals have started to wonder how this multitasking affects the television watching experience. In a 2013 Nielsen survey study researchers found that 15% of viewers believed that they "enjoyed television more" because of the second screen (Nielsen, 2014). While proponents of the second screen saw the 4% increase from the previous year as a positive for media multitasking, skeptics were more focused on the relatively small percentage of people who felt the second screen increased enjoyment. On the other hand, results from a 2014 survey conducted by the Consumer Electronics Association (CEA) and the National Association of Television Program Executives (NATPE) showed that 13% of respondents

found television to be "much more enjoyable" because of second screens and 67% reported that television was "somewhat more enjoyable" (CEA, 2014). These data indicate that at least 80% of second screen users felt that second screen use increased their enjoyment of television to some degree. The drastic difference between the findings from these studies suggests a need for further research.

Moreover, the murkiness of second screen use and its consequences on media effects can further be seen in academic studies exploring various media outcomes. For example, in their studies researching how second screen use affects sexual initiation after exposure to sexual content, Collins (2008) and Jeong, Hwang, and Fishbein (2010) produced diverging conclusions.

In her study seeking to understand how media multitasking moderates the effects of sexual television content on young viewers, Collins (2008) found that the level of multitasking (in this case that referred to concurrent use of the Internet and television) was positively correlated with higher levels of sexual initiation. On the other hand, findings from a similar study conducted by Jeong et al. (2010) suggested that contrary to Collins' investigation, heavy media multitasking was actually correlated with lower levels of sexual initiation. Jeong et al. (2010) attributed this negative relationship between media multitasking during exposure to sexual content and subsequent sexual initiation to the harmful effects second screen use has on the attention toward and processing of the sexual content displayed on the primary medium.

However, when looking specifically at the Internet/television multitasking combination, findings from the Jeong et al. (2010) study fell in line with those from the

Collins study. The authors concluded that "instead of reducing the impact of the media on sexual behavior, the television-Internet multitasking combination may have no effect or, under certain circumstances, it may actually be synergistic" (Jeong et al., 2010, p. 236). They argued that the Internet, as opposed to a book for example, assists in processing information from the television content because it allows viewers to search for additional, content-relevant information. By assisting with information processing, content-relevant second screen use canceled out part of the inhibiting role of media multitasking (Jeong et al., 2010). These findings suggest that the effects of second screen use is not solely the result of simply using a second screen, but that other factors like how the device is used (e.g. for related or unrelated purposes) can play a role.

Related Versus Unrelated Second Screen Use

One factor that has been considered in explorations of the second screen is related versus unrelated use. Hwang et al. (2014) and Van Cauwenberge et al. (2014) both conducted studies that sought to understand the role of related second screen use on learning from a news program. Both Van Cauwenberge et al. (2014) and Hwang et al. (2014) hypothesized that TV-Internet multitasking would enhance information gain by allowing users to search for content-relevant information. Despite using similar approaches, the former study found that the relevance of second screen use did not have a significant effect on learning outcomes, while the latter found that relevant second screen use was a significant factor.

Though both studies employed experimental methods, Van Cauwenberge et al. (2014) required participants in the TV-Internet condition to multitask while Hwang et al.

(2014) gave participants a choice. As noted by the researchers, requiring participants to multitask by having them search for and answer a set of provided questions does not account for individual preferences and strategies (Van Cauwenberge et al., 2014). On the other hand, giving participants the option to multitask with the Internet allows for individuals to multitask as they would in a more natural setting. In other words, individuals have varying motivations and strategies for media multitasking that affect if and how they do so. These differences must be considered when exploring the effects of second screen use, as will be addressed in this study.

Furthermore, an important point worth noting is that although it is potentially beneficial for learning outcomes, TV-Internet multitasking is no less distracting than multitasking with television and more traditional media such as a book (Hwang et al., 2014). The key is that viewers are able to find relevant information, thereby facilitating information processing and overcoming the negative effects of the distracting nature of multitasking (Hwang et al., 2014). Simply using the Internet as opposed to reading a book while watching television is not sufficient enough to significantly reduce the adverse effects of the second screen. While these findings are not directly applicable to the current study because of their focus on learning outcomes, they do suggest that there are factors (e.g. motivations and relevance) that can help viewers overcome the negative effects a distraction like the second screen may present.

Enjoyment in Media Effects Research

There is still a clear need for research that explores the effects of second screen use on outcomes other than information gain and comprehension. While learning

outcomes may be of importance for news programs, they may not have the same importance for other types of television programming such as entertainment dramas and sports. Furthermore, advertisers are not always necessarily interested in inducing learning, but more so in increasing attention and awareness. As several studies have shown, for example, an emotion brought on by a television show can be transferred to the viewer's opinion of a subsequent advertisement (Bee & Madrigal, 2012; Moorman et al. 2005; Mattes & Cantor, 1982). Bee and Madrigal (2012) found that evaluations of an ad were more favorable after the conclusion of a highly suspenseful game than after a low-suspense game. So in the context of this study, if a viewer is not enjoying a television program, this negative attitude can be transferred to his or her opinion of a company's commercial. As such, understanding how second screen use affects enjoyment can be of particular interest to advertisers. The current study attempts to fill this need by studying the effects of media multitasking on enjoyment.

Over the years, enjoyment has garnered significant attention from media effects scholars especially those exploring entertainment television. It has been explored in the context of viewing sports (Bryant & Raney, 2000; Cummins & Hahn, 2013), reality television (Nabi et al., 2006), crime dramas (Raney & Bryant, 2002), comedies (Banjo, 2011), and tearjerkers (Ahn et al., 2012). Enjoyment has typically been viewed as simply a pleasurable response to media use. For example, Zillmann, Bryant, and Sapolsky's (1989) disposition theory of sport spectatorship treats enjoyment as purely the result of a viewer's dispositions toward teams playing and the outcome of a game. They argue that the "optimal condition for enjoyment is the contest in which an intensely liked player or

team defeats an intensely disliked player or team" (Zillmann et al., 1989, p. 257). While this perspective can help in determining enjoyment, there are other factors or needs that can help depict a more comprehensive picture. Additionally, there may be situations in which a viewer experiences high levels of enjoyment without having a disposition toward either of the competing teams. For instance, a fan of Team C could derive enjoyment from watching Team A and Team B compete for a playoff spot.

Furthermore, when exploring enjoyment, it is important to make a distinction between enjoyment of a media message and enjoyment of the overall mediated experience (Nabi & Krcmar, 2004). Just because a viewer's emotions toward a media message are negative, does not mean that he or she cannot enjoy the overall experience (Nabi &Krcmar, 2004). For instance, someone who does not enjoy watching football could report that they enjoyed watching the Super Bowl as a result of where or with whom they watched the game. This distinction is key for the current study because as stated above, there are some scholars who have suggested that a sports viewer's enjoyment is almost entirely driven by dispositional factors (e.g. watching a favorite team win or a hated team lose) (Bryant & Raney, 2000). While this certainly falls within a need-based perspective (Tamborini et al., 2011) and will be a consideration in this study, dispositional factors appear to only speak to a viewer's enjoyment of the mediated content, as opposed to the mediated experience as a whole.

In an attempt to better understand media enjoyment as a nuanced, multi-faceted construct, Tamborini et al. (2010) employed experimental methods to test a need-satisfaction conceptualization of the construct. As noted by the researchers, many lines of

research have, at least implicitly, treated enjoyment as the satisfaction of needs including work on disposition theory of sport spectatorship (Zillmann et al., 1989), uses and gratifications (Katz et al., 1974), and mood management (Zillman & Bryant, 2002).

To complement and build on previous hedonic—or affect-centered definitions of enjoyment—Tamborini et al. (2010) introduced nonhedonic needs drawn from self-determination theory (SDT). In their experiment testing participants' enjoyment of video game play, the researchers found that the three needs of autonomy, which refers to an individual's sense of choice when acting; competence, which refers to an individual's sense of challenge and ability; and relatedness, which refers to an individual's sense of belonging with others, explained 51% of the variance in reported enjoyment (Tamborini et al., 2010). These findings provided strong support for the usefulness of defining enjoyment as the satisfaction of needs as well as the importance of including both affective and non-affective needs. Though the researchers only used autonomy, competence, and relatedness in their study, a nonhedonic need can be any need that is not related to pleasure-seeking such cognitive and social/behavioral needs.

In a subsequent paper, Tamborini et al. (2011) built on the previous experiment by illustrating the importance of both hedonic and nonhedonic needs in studying the enjoyment of noninteractive content, further supporting the utility of a need satisfaction conceptualization. They also argued their point by articulating how characterizing enjoyment as the satisfaction of needs can help explain the commonly cited paradox of individuals' positive reactions to tragic movies, a phenomenon that can similarly be seen in sports viewing. The authors contend that a viewer's negative response to a tragic

movie is because the movie either "(a) did not satisfy any needs of the individual or (b) satisfied some needs, but not salient needs" (Tamborini et al., 2011, p. 1039). Conversely, a positive reaction would be the result of the movie satisfying a viewer's salient needs. For example, while watching a film like *Life is Beautiful* where the protagonist is tragically shot and killed, some dispositional needs may be left unmet (i.e., seeing the protagonist escape and make it back to his family), while other needs may be satisfied (e.g., personally identifying with a character through his relationship with his father) (Tamborini et al., 2011, p. 1039). This could result in an overall positive evaluation because although the viewer could be experiencing sadness, the reward from the satisfaction of his or her relatedness need would override the negative emotions arising from the unsatisfied need.

To illustrate this in the context of the current study, consider a football game in which Team A loses a heartbreaker to Team B. Two fans of Team A watch the game with one individual having a positive response to the result and the other having a negative response to the result. Based on Tamborini et al.'s (2011) framework, it would hold that while dispositional needs were unmet for both individuals (e.g. watching a loved team win), the fan who had a positive reaction toward the game had other more salient needs, such as a need for arousal, satisfied (e.g. a nail biter or thriller, a "good" game), resulting in the overall positive response.

Further support for a need-satisfaction conceptualization of enjoyment can be seen in Nabi et al.'s (2006) study exploring cognitive and emotional predictors of the enjoyment of reality and fictional television programming. From their research, the

researchers found that while learning was positively related to enjoyment of crime shows, it was negatively related to reality-game shows. The authors posit that this may be the case because "for crime programs, learning about criminal behavior and the justice system may be a strong motivation for viewing such programs, whereas perhaps learning in the context of reality-game programs may distract from the gratifications of judging others and suspense" (Nabi et al., 2006, p. 442). That is, if a viewer's motivations are gratified, enjoyment should theoretically follow. Given the importance of satisfaction of needs in determining individual viewers' enjoyment of watching a televised sporting event, it makes sense to consider enjoyment within a context of existing uses and gratifications research.

Uses and Gratifications

Among media effects scholars, it is understood that the uses and gratifications (U&G) perspective is rooted in the notion that audience members are active and in control of their media choices (Nabi et al., 2006). Uses and gratifications research also rests on a set of accepted assumptions including the ideas that (1) media use is motivated and driven by a desire to satisfy individual needs, and (2) media users are aware of these needs (Palmgreen et al., 1985; Rubin, 1994). The utility in understanding media users' motivations for media use, according to the U&G approach, is that differing motivations can be used to help explain varying media effects among audience members (Nabi et al., 2006).

In their 1974 paper, Katz et al. provide the foundation for the U&G approach. They argued that "(1) the social and psychological origins of (2) needs, which generate

(3) expectations of (4) the mass media or other sources which lead to (5) differential patterns of media exposure… resulting in (6) need gratifications and (7) other consequences, perhaps mostly unintended ones" (p. 20). In other words, individuals recognize needs and seek to gratify them through media use resulting in gratifications and other media effects (e.g. enjoyment).

For the current study, two components of the U&G perspective are fundamental. First, the notion of an active audience that is aware of their needs is pivotal because with this assumption, it can be argued that self-reported survey data are an appropriate method for measurement. Second, the emphasis on individual media users as opposed to media content is critical in understanding the varying enjoyment levels of Super Bowl viewers. Rather than focusing on attributes of the game, the current study focuses on viewer motivations and media use and how each impacts enjoyment.

Motivations for Watching Televised Sports

As proposed by U&G, a viewer's motivations for using a particular medium and choosing a specific program play a key role in his or her experienced effects. Intentional, or motivated, viewing is particularly prevalent among viewers of entertainment television, especially sports (Gantz et al., 2006; Voorveld & Viswanathan, 2014). Given the highly motivated nature of watching mediated sports, many scholars have sought to establish a typology of motivations (Gantz, 1981; Sloan, 1989; Wann, 1995) with motivations falling within three categories: emotional, cognitive, and behavioral/social (Raney, 2009).

Studies of the motivations for watching sports have found that cognitive

motivations include learning and aesthetics. Many fans watch sports to gain knowledge

about their favorite teams and players so they can discuss what they know with friends

and fellow fans (Raney, 2009). Additionally, viewers watch sports for the aesthetic and

artistic values. Citing Smith (1988), Raney (2009) states, "a splendid athletic

performance rivals any great work of art" (p. 347). Given the evaluative nature of treating

sports like art, researchers consider aesthetics to be a cognitive motivation.

As for emotional motivations, primary motivations include pleasure seeking,

diversion or escape, and a viewer's affinity for or disposition toward a particular team,

player, or sport. A viewer's disposition toward a team is said to be a predominant reason

for tuning in (Raney, 2009). Many fans tune in to a game with the hopes of experiencing

the thrill of victory with their favorite team, or in the case of a hated team, the thrill of

watching them lose. Additionally, regardless of disposition, many viewers watch sports

for the physiological and emotional arousal a sporting event can provide. Often times this

arousal is attributed to the suspense and perceived violence of sports (Bryant et al., 1981;

Gan et al., 1997).

Finally, common behavioral/social motivations include companionship and group

affiliation (Cooper & Tang, 2012; Raney, 2009). Researchers have found that sports

programming allows for more communication between viewers than any other content on

television (Raney, 2009). Furthermore, fans are motivated to watch so they can talk with

family and friends about the game and fulfill a need for group affiliation and community.

With many viewers watching sports in groups, especially for the Super Bowl, the second

screen could disrupt a viewer's connection with the people he or she is watching the

game with by drawing attention away from them and toward the second screen, but could

also connect the viewer with other fans and friends through social networking sites or text

messaging.

Research Questions and Hypotheses

With this background, the current study was guided by a number of research questions. First, as stated before, past research has found that 46% of smartphone users and 43% of tablet users use a second screen while watching television everyday (Nielsen, 2013a). Given the prevalence of second screen use among general television viewers, it is important to measure what proportion of viewers were using a second screen during this particular event. Also in previous research, smartphones and tablets have proven to be the most popular second screen devices, with 75% of the consumers surveyed reporting that they use a mobile device to multitask (Ericsson, 2013). The current study is interested in seeing if these second screen trends can similarly be seen for live television sporting events, more specifically, the Super Bowl. As such, this study poses the following research questions:

RQ_1: What percentage of viewers used the second screen during the Super Bowl?

RQ_2: What types of devices did Super Bowl viewers use?

In previous studies exploring second screen use, researchers have found that viewers use their second screens to surf the web; shop; check sports scores; look up actors, plots, athletes, etc.; email/text friends about the program; read discussion about the TV program on social media; buy a product/service advertised; and vote or send comments to a live program (Nielsen, 2014). As noted above, these data come from surveys of general television viewers (CEA, 2014; Nielsen, 2013a; Nielsen, 2014). The current study poses the following research question to help in understanding how sports viewers in particular are using their second screen:

RQ3: For what purposes do viewers use their second screen?

With statistics demonstrating how pervasive second screen use is, many researchers have become interested in how this trend impacts people's media experiences. Many of these studies have addressed the effects on cognitive outcomes, but few have explored the effects on enjoyment. Given this lack of data on the impact of second screen use on enjoyment, the current study poses the following research question:

RQ4: Does second screen use negatively or positively impact enjoyment of watching the Super Bowl?

In studies exploring how media multitasking affects various cognitive and behavioral outcomes, several have posited that related content search is important when trying to understand cases where media multitasking enhanced media effects. Hwang et al. (2014) demonstrated that using the Internet while watching television could allow for relevant information seeking and ultimately increase information gain. The researchers concluded that using the second screen to search for related information helped facilitate learning processes by helping maintain attention toward the primary medium and overcoming the distraction and negative effects multitasking typically causes. Given this, the current study poses the following hypotheses:

H1: Related second screen use will be positively related to enjoyment

H2: Unrelated second screen use will be negatively related to enjoyment.

Literature on enjoyment suggests that enjoyment is the result of satisfying needs. Uses and gratifications theory suggests that viewers are aware of these needs and seek out specific media and media experiences to fulfill these needs. If a viewer's second screen

use is at odds with their motivations for watching the game, this should theoretically

result in reduced enjoyment. The current study poses the following hypothesis:

> **H₃**: A larger distance or gap between motivations for watching the Super Bowl
>
> and second screen uses will be negatively related to enjoyment.

While there are many factors that can contribute to a viewer's enjoyment of the

Super Bowl, it would be fruitful to explore which factor plays the largest role in

predicting enjoyment. Understanding this can help media and sports organizations begin

to truly optimize the second screen experience and provide advertisers with an

understanding of what factors have the largest effect on enjoyment. As such, this study

posits the following research question:

> **RQ₅**: After holding constant demographics, NFL and televised sports fandom,
>
> disposition toward competing teams, and feelings on the outcome of the game,
>
> what factor best predicts overall enjoyment?

Method

Participants and Procedures

An online survey was distributed by email to a random sample of 2,500 undergraduate students from a large Midwestern university, provided by the university's Office of Institutional Research. The initial email inviting participation was sent about 30 minutes after the conclusion of 2015 Super Bowl and was followed by two reminder emails. In the first email, the study was introduced as one on media multitasking during mediated sports viewing. As an incentive, respondents were entered into a raffle to win a $100 Target gift card. In the email, participants were provided a link that would take them to the survey. The response rate was 25.36% ($N = 634$).

Data were collected around the Super Bowl because it is commonly the most watched television program of the year. According to Nielsen ratings, some aspect of the Super Bowl (pre- and post-game show, the game itself, etc.) has held the top three spots on the list of the most watched programs of the year for at least the last four years (Nielsen, 2013c; Nielsen, 2012; Nielsen, 2011; Nielsen, 2010b). These high ratings helped ensure that the survey was relevant to a large proportion of those randomly sampled.

Although past viewership for the Super Bowl has been marginally higher for older age groups (Nielsen, 2010a), younger age groups including college-aged viewers report higher levels of media multitasking while watching television (Perez, 2012). Using a college student sample is appropriate because this study's main focus is on second screen use rather than a particular sporting event.

Measures

The first question on the survey served as a screen to filter out respondents who did not watch the Super Bowl. If a participant did not watch the Super Bowl, the survey ended after the screening question; however, if a participant did watch the Super Bowl, he or she moved on to additional questions. This was done because the current study is exploring the effects of second screen use and a participant had to have watched the Super Bowl to be able to have used a second screen during the game. The final sample included 453 respondents who watched the Super Bowl (69.7%), of which 40.6% were male (*N=184*) and 36.2% were female (*N=164*); 19.0% were freshmen (*N=86*), 20.8% were sophomores (*N=94*), 17.0% were juniors (*N=77*), and 20.1% were seniors (*N=20.1%*).[1]

General second screen frequency of use ($M = 2.84$, $sd = .931$) and *Super Bowl second screen frequency of use* ($M = 2.51$, $sd = 1.00$) were assessed using a 4-point Likert scale ranging from "never" to "very frequently." General second screen frequency of use was addressed by asking respondents, "in general, how frequently do you use a second screen (e.g. smartphone, tablet, laptop) while watching television," and Super Bowl second screen frequency of use was addressed by asking participants "while watching the Super Bowl, I used my second screen…"

Media devices used were recorded using a single item. Respondents were asked, "What media device(s) did you use during the Super Bowl? (Select all that apply.)" The options were smartphone ($n = 330$, 94.3%), tablet ($n = 25$, 7.1%), computer

Due to a glitch in the initial survey, complete demographic data for Super Bowl viewers was not able to be collected.

($n =100$, 28.6%), or game console ($n = 5$, 1.4%).

Second screen uses were recorded using a checklist of different types of uses. Respondents were instructed to check all of the ways in which they used their second screen device during the game. Each second screen use could be engaged in through text message, the Internet, social media, or an application. Each medium that a respondent said they used for a given purpose was added together, so that the score for each purpose had a final score that ranged from 0 to 5. Items were then placed into one of three categories of uses: (1) emotional use, (2) cognitive use, or (3) social/behavioral use. The following items were combined to form an "emotional uses" measure ($M = .561$, $sd = .576$, $.\alpha=.751$): "to play a game" ($M=.391$, $sd=.565$), "to celebrate a big or important play" ($M=.597$, $sd=.794$), and "to see others celebrate or show excitement about a big or important play" ($M=.694$, $sd=.773$). These items were combined to form a "cognitive uses" measure ($M= .584$, $sd= .595$, $\alpha=.839$): "look up statistics or news about the game or players" ($M=.666$, $sd=.738$), "browse information or news unrelated to the game" ($M=.894$, $sd=.803$), "to see pictures from the game" ($M=.620$, $sd=.762$), "browse others' opinions about the game" ($M=.691$, $sd=.670$), "to comment on the game (not to one particular person)" ($M=.454$, $sd=.687$), and "to watch a video replay from the game" ($M=.466$, $sd=.696$). Finally, the following items were combined to form a "social/behavioral uses" measure ($M = .734$, $sd = .528$, $\alpha=.639$): "talk with friends and/or family about the game" ($M=1.091$, $sd=.868$), "talk with friends and/or family about things unrelated to the game" ($M=1.066$, $sd=.868$), "to interact with one of the teams

playing" (*M*=.243, *sd*=.514), and "to interact with fellow fans" (*M*=.497, *sd*=.797).

Additionally, participants had an "other" option where they were able to type in their own

uses that were not included in the checklist.

 Items from the second screen uses checklist were used to create the *related*

second use and *unrelated second screen use* measures. The related second screen use

measure was created using the following items: "talk with friends and/or family about the

game," "look up statistics or news about the game or players," "to browse others'

opinions about the game," "to celebrate a big or important play," "to see others celebrate

or show excitement about a big or important play," "to see pictures from the game," "to

watch a video replay from the game," "to interact with one of the teams playing (e.g.

through social media)," "to interact with fellow fans," and "to comment on the game (not

to one particular person)" (*M*=.602, *sd*=.566, α=.923). The unrelated second screen use

measure was created using these items: "talk with friends and/or family about things

unrelated to the game," "to browse information or news unrelated to the game," "to play

a game," "to work on schoolwork or work," and "to kill time" (*M*=.846, *sd*=.544,

α=.699).

 Enjoyment was measured using a 4-item scale drawn from Nabi et al.'s (2006)

study on viewers' enjoyment of reality versus fictional television programming. Using a

7-point Likert scale from "not at all" to " very much", respondents were asked to answer

the following statements: (1) "How enjoyable was the overall game watching

experience?" (*M*=5.37, *sd*=1.445), (2) "How entertaining was the overall game watching

experience?" (*M*=5.44, *sd*=1.464), (3) "How pleasurable was the overall game watching

experience?" (*M*=5.15, *sd*=1.560), and (4) How captivating was the overall game watching experience?" (*M*=4.90, *sd*=1.671). The four questions were combined to create a single "enjoyment" measure (α=.949).

Viewing Motivations were measured using 20 questions drawn from Tang and Cooper's (2013) study about Olympic viewing motivations. Each question was coded as either cognitive (*M* = 3.016, *sd* = 1.618, α=.828), emotional (*M* = 3.739, *sd* = 1.266, α=.888), or social/behavioral (*M* = 4.525, *sd* = 1.589, α .782) to form the viewing motivation categories. Items were placed in each grouping based on how motivations were categorized in Raney's (2009) study about why individuals watch and enjoy mediated sports. Question wording and descriptive statistics can be seen in Table 1.

To create the *Super Bowl second screen uses/viewing motivation differences* measure, the viewing motivation and second screen use category measures were standardized to allow for comparison. Next, the standardized value for each viewing motivation category—cognitive, emotional, and social/behavioral—was subtracted from the standardized values for the respective second screen use categories. The resulting values were then added together to create an overall difference score (*M* = .0205, *sd* = 2.841). When creating the difference score using these standardized values, viewing motivations were subtracted from second screen uses so that the resulting number reflected the degree to which second screen uses met or exceeded motivations for the primary experience (i.e. watching the Super Bowl).

Table 1

Descriptive Statistics: Motivations for Watching the Super Bowl

I watched the Super Bowl…	*M*	*SD*
because it gives me the opportunity to temporarily escape life's problems.	2.50	1.750
because it allows me to forget about my problems.	2.29	1.663
because watching sports is like daydreaming because it takes me away from life's hassles.	2.29	1.630
because I get pumped up when I am watching a team that I like or dislike.	4.02	2.017
because I like the stimulation I get from watching sports.	4.12	2.008
because I enjoy being physiologically aroused by the competition.	3.56	2.008
because the team I root for's successes are my successes and their losses are my losses.	2.47	1.915
because, to me, sports spectating is simply a form of recreation.	4.60	1.954
because it is a good time.	5.58	1.566
because it makes me feel good when the team I'm rooting for wins.	4.22	2.039
because of the entertainment value.	5.36	1.638
Emotional	3.74	1.270
for the artistic value.	2.56	1.703
because I enjoy the beauty and grace of sports.	3.88	2.064
because to me sports are a form of art.	2.63	1.834
Cognitive	3.02	1.620
because most of my friends are sports fans.	4.18	1.928
because I am the kind of person who likes to be with other people.	4.76	1.771
because I enjoy watching sports more when I am with a large group of people.	4.64	1.988
because it gives me an opportunity to be with my spouse or significant others.	3.28	2.237
because it gives me an opportunity to be with my family.	3.50	2.163
Social	4.08	1.330

Notes: All items are measured on a seven-point Likert scale, from strongly disagree (1) to strongly agree (7)

NFL fandom was measured using a single item. Using a 7-point Likert scale from "not at all" to "very much", respondents were asked the following: (1) "How much do you identify as a sports fan?" and *(M = 4.79, sd = 1.918).*

To measure *general sports viewing,* participants were asked to indicate using a 7-point Likert scale ranging from "never" to "daily," "on average, how much do you watch sports on television?" $(M = 4.45, sd = 1.722)$.

Opinion of the Seattle Seahawks, opinion of the New England Patriots, and *feelings on the outcome of the game* were measured using 7-point semantic differential scales. Participants were asked, "From love to hate, what is your opinion of the Seattle Seahawks?" $(M: 4.03, sd = 1.460)$ and "From love to hate, what is your opinion of the New England Patriots?" $(M: 3.85, sd = 1.553)$. They were also asked to finish the following statement: "From negative to positive, my feelings regarding the outcome of the game are…" $(M: 4.42, sd = 1.755)$.

Finally, two *demographics* questions were included. Participants were asked to indicate their gender and what year of school they are in.

Results

RQ₁ asked what percentage of viewers used a second screen while watching the Super Bowl. To establish the frequency of viewers who used a second screen while watching the Super Bowl descriptive statistics were used. As shown in Table 2, only 16.1% (N=67) of viewers did not use a second screen while watching the game (Male: n= 34, 50.7%; Female n=22, 32.8%), while 83.9% of participants reported using their second screen at least somewhat frequently during the game (Male: n= 130, 37.1%; Female n=162, 46.3%). Furthermore, 45.3% of respondents reported using a second screen frequently or very frequently game (Male: n= 59, 31.2%; Female n=94, 49.7%).

Additionally, correlations between NFL fandom and frequency of second screen use, related second screen use, and unrelated second screen use were tested. As shown in Table 5, while NFL fandom was negatively correlated with general frequency of second screen use during the Super Bowl (r = -.150, p = .005), it was positively correlated with related second screen use (r =.318, p <.001) and had no significant correlation with unrelated second screen use. This shows that while fans of the NFL were less likely than non-fans to use the second screen, those NFL fans who did were likely to use it for related reasons.

Furthermore, to compare Super Bowl viewers' second screen frequency of use with their frequency of use while watching sports in general, descriptive statistics were used. According to the data, respondents used second screen significantly less frequently during the Super Bowl (M=2.79, sd=.821) than they usually do while watching sports (M=3.02, sd=.824).

Table 2
Frequencies of second screen of use
While watching the Super Bowl, I used my second
screen (e.g. smartphone, tablet, laptop)...

	n	*%*
Never	67	16.1
Somewhat Frequently	161	38.6
Frequently	100	24.0
Very Frequently	89	21.3
Total	417	100.0

RQ2 asked what types of devices Super Bowl viewers used as second screens. To establish what devices viewers used as a second screen while watching the Super Bowl descriptive statistics were employed. As shown in Table 3, of the 350 respondents who used a second screen while watching the Super Bowl, 94.3% (N=330) used a smartphone, 7.1% (N=25) used a tablet, 28.6% (N=100) used a computer, and 1.4% (N=5) used a game console.

Table 3
Devices used as second screen while watching the Super Bowl
What media device(s) did you use what watching
the Super Bowl? (e.g. smartphone, tablet, laptop)...

	n	*%*
Smartphone	330	94.3
Tablet	25	7.1
Computer	100	28.6
Game Console	5	1.4

Notes: Percentages are greater than 100% because multiple selections were possible.

RQ₃ asked for what purposes viewers use their second screen. To answer **RQ₃**, descriptive statistics were used to examine the different categories of second screen use— cognitive, emotional, and social/behavioral—and for related/unrelated second screen use. The most frequent category of second-screen use was social/behavioral uses (e.g. companionship, group affiliation) ($M = .734$, $sd = .528$), followed by cognitive uses (e.g. aesthetics, artistic values) ($M = .584$, $sd = .595$), and finally emotional uses (e.g. disposition, arousal) ($M = .561$, $sd = .576$). Additionally, second screen users more frequently used a second screen for unrelated uses ($M = .863$, $sd = .558$) than related uses ($M = .614$, $sd = .568$).

RQ₄ asked whether second screen use negatively or positively impacts enjoyment of watching the Super Bowl. To answer **RQ₄**, a correlation between enjoyment and frequency of second screen use was tested. As shown in Table 4, the frequency of second screen use while watching the Super Bowl is negatively correlated with enjoyment ($r=-.202$, $p < .001$).

Table 4

Correlations among key variables for Super Bowl viewers

Variables	1	2	3	4	5	6	7	8
1. Enjoyment								
2. Super Bowl second screen frequency of use	-.202**							
3. Cognitive viewing motivations	.497**	-.062						
4. Emotional viewing motivations	.626**	.009	.624**					
5. Social/behavioral viewing motivations	.289**	-.059	.232**	.384**				
6. NFL fanship	.578**	-.080	.509**	.635**	.168**			
7. Watch sports	.524**	-.095	.491**	.559**	.183**	.723**		
8. Year in school	-.037	.028	-.042	-.037	-.026	-.005	-.048	
9. Gender	.268**	-.185**	.246**	.205**	-.022	.313**	.413**	-.033

Notes: *p<.05; **p<.01

H₁, however, predicted that related second screen use would be positively related to enjoyment and unrelated second screen use will be negatively related to enjoyment. To test **H₁**, a correlation between enjoyment and related second screen use was tested. Table 5 shows that, as predicted, related second screen use is positively correlated with enjoyment ($r = .307$, $p < .001$). Thus, **H₁** is supported.

H₂ predicted that unrelated second screen use would be negatively correlated with enjoyment. To test **H₂**, a correlation between enjoyment and unrelated second screen use was tested. As shown in Table 5, unrelated second screen use is negatively correlated with enjoyment ($r = -.127$, $p = .05$). Thus, **H₂** is supported.

H₃ predicted that a larger distance or gap between motivations for watching the Super Bowl and second screen uses would be negatively related to enjoyment. To test **H₃**, a correlation between enjoyment and Super Bowl second screen uses/viewing motivation differences was tested. As shown in Table 5, the difference between second screen use and viewing motivations is negatively correlated with enjoyment ($r = -.263$, $p < .001$). Thus, **H₃** is supported.

Table 5

Correlations among key variables for second screen users

Variable	1	2	3	4	5	6	7	8
1. Enjoyment								
2. Super Bowl second screen frequency of use	-.175**							
3. Related second screen use	.307**	.165**						
4. Unrelated second screen use	-.116*	.265**	.488**					
5. Super Bowl second screen uses/viewing motivation differences	-.263**	.194**	.560**	.549**				
6. NFL fanship	.579**	-.150**	.306**	-.076	-.231**			
7. Watch sports	.520**	-.129*	.288**	-.083	-.213**	.730**		
8. Year in school	-.060	.062	-.106	-.037	-.099	-.036	-.059	
9. Gender	.250**	-.155**	.156**	.017	-.028	.320**	.429**	-.038

Notes: *p<.05; **p<.01

RQ₅ asked after holding demographics, NFL and televised sports fandom, disposition toward competing teams, and feelings on the outcome of the game constant, what factor best predicts overall enjoyment. To answer **RQ₅**, a hierarchical regression was constructed to test predictors of enjoyment while watching the Super Bowl. With enjoyment set as the dependent measure, gender, year in school, NFL fanship, and frequency of watching televised sports were entered in Block 1; opinion of the Seattle Seahawks, opinion of the New England Patriots, and feelings on outcome of game were entered in Block 2; and finally, Super Bowl second screen frequency of use, related second screen use, unrelated second screen use, cognitive viewing motivations, emotional viewing motivations, social/behavioral viewing motivations, and Super Bowl second screen uses/viewing motivation differences were entered in Block 3.

As shown in Table 6, the first block predicted 34.2% (R^2=.342, $p < .001$) of the variance in enjoyment. Being a fan of the NFL (β=.419, $p < .001$) and frequently watching sports on television (β=.185, $p = .016$) significantly predicted enjoyment. The second block predicted an additional 2.3% (R^2=.023, $p = .024$) of the variance in enjoyment. In this model, NFL fanship (β=.421, $p < .001$) and opinion of the 2015 Super Bowl champion New England Patriots (β=.130, $p = .037$) significantly contributed to predicting enjoyment. The third block predicted an additional 10.8% (R^2=.108, $p < .001$) of the variance in enjoyment. In the final model, related second screen use (β=.459, $p < .001$) and NFL fanship (β=.291, $p < .001$) positively predicted enjoyment of watching the Super Bowl, while differences between Super Bowl second screen uses and viewing motivations (β=-.345, $p < .001$) negatively predicted enjoyment of the game. So when

holding demographics, NFL and televised sports fandom, disposition toward

competing teams, and feelings on the outcome of the game constant, related second

screen use best predicted enjoyment of watching the Super Bowl.

Table 6
Hierarchical Regression predictors of enjoyment watching the Super Bowl

Variables in Model	B	Std. Error	Beta
Year in school	-.043	.063	-.033
Gender	.107	.158	.037
NFL fanship	.302	.052	.419**
Watch sports	.154	.063	.185*
$R^2=.342**$			
Year in school	-.046	.062	-.036
Gender	.099	.156	.034
NFL fanship	.303	.052	.421**
Watch sports	.148	.063	.177*
Opinion of Seattle Seahawks	.084	.058	.085
Opinion of New England Patriots	.126	.060	.130*
Feelings on outcome of game	.003	.061	.003
$\Delta R^2=.023*$			
Year in school	-.048	.058	-.037
Gender	.135	.144	.047
NFL fanship	.209	.050	.291**
Watch sports	.045	.060	.054
Opinion of Seattle Seahawks	.050	.054	.051
Opinion of New England Patriots	.146	.056	.150**
Feelings on outcome of game	-.046	.056	-.055
Super Bowl frequency of second screen use	-.112	.085	-.064
Related second screen use	1.139	.167	.459**
Unrelated second screen use	-.285	.144	-.111
Super Bowl second screen uses/viewing motivation differences	-.175	.033	-.345**
$\Delta R^2=.108**$			

Notes: *p<.05; **p<.01

Discussion

Given the wealth of research on second screen in various contexts, it is surprising that there has not been a study that has explored the effects of second screen use on enjoyment. The current study attempted to fill this void by addressing how second screen use impacts the enjoyment of the Super Bowl. Before diving into the implications of the results from this study, it would benefit the discussion to provide a quick overview of the game to give some context to the data. Those who watched the 2015 Super Bowl saw a close game throughout, with the game coming down to the wire. The New England Patriots intercepted the Seattle Seahawks quarterback with 20 seconds to play, at the 1-yard line, to win the game 28-24. Unlike the previous year, this Super Bowl provided suspense until the very end.

While, in general, second screen use was negatively correlated with enjoyment of watching the Super Bowl, a closer look shows that the effects were more nuanced. Though, unsurprisingly, NFL fandom had the strongest correlation with enjoyment, when NFL fandom and other factors are held constant, second screen use not only helps explain an additionally significant proportion of the variance in enjoyment, it is also the best predictor for enjoyment of watching the Super Bowl. While second screen use only predicts an additional 10.8% of the variance in the enjoyment of the Super Bowl, it should not be disregarded. Given the amount of money advertisers invest in the Super Bowl and the importance of enjoyment in keeping viewers tuning in, even the relatively small effects of second screen use should still be of concern.

According to the data, the prevalence of second screen use within this college-aged demographic is ubiquitous (83.9% of surveyed viewers). In general, while *frequency* of second screen use had a negative correlation with enjoyment, when holding other factors constant, it is not a significant predictor of enjoyment. However, when looking more closely at the types of second screen uses, using the second screen to engage in uses related to the game not only reduced the negative effects of using a second screen, but also resulted in increased in enjoyment. While sports organizations are likely already encouraging game-related second screen use, this provides some insight for marketers and programmers on how they can best leverage the second screen. This finding suggests that they should encourage fans to engage with their brand or the game broadcast on second screen in ways that are related to the game. According to the data, NFL fans are already more likely to engage in related second screen use.

Also of interest, while NFL fandom and frequency of watching sports had positive correlations with related second screen use, neither was significantly correlated either way with unrelated second screen use. This finding combats the assumption that people who were using second screen for unrelated reasons were doing so simply because they were not fans of sports or the NFL.

However, it does not appear to be as simple as just getting viewers to engage in related second screen use. According to the data, differences between the type of second screen use and motivations for watching the Super Bowl can lead to second screen having a negative effect on enjoyment. Though not as strong a predictor for enjoyment as related

second screen use, these differences are still the second best predictor of enjoyment for the Super Bowl, even ahead of NFL fandom.

This suggests that while second screen provides an opportunity for increasing enjoyment, it also has the potential to be a distraction. Though it is beneficial to get viewers to engage in related second screen use, it is also important for sports organizations and leagues, marketers, and media programmers to understand viewers' motivations for watching. By understanding viewers' motivations (e.g. emotional needs) for watching a sporting event, content producers can gauge the extent to which a particular game is providing those needs (e.g. a blowout Super Bowl) and aim to bridge any gap that exists (e.g. provide second-screen content that taps into fans' emotional connection with sports).

Also worth noting, smartphones were significantly the most pervasive and frequently used second screen device. This suggests that industry's current collective focus on optimizing the mobile experience is fruitful and necessary.

Overall, the practical implications of this study boil down to the following: Given the ubiquity of second screen use, it is unlikely that sports viewers and fans are going to simply stop using the second screen. As such, sports organizations and leagues, marketers, and media programmers should encourage related second screen use that accounts for the viewing motivations of different segments of their audience, to avoid creating a second screen experience that is distracting to the viewers' engagement with the primary medium. For sports organizations and leagues this may be relatively straightforward, however for marketers and other content producers, this may take a bit

more creativity and planning. They will need to find effective ways to leverage related second screen content for the benefit of their brand. Whether this is through piggybacking on the content of sports organizations, leagues and/or athletes, or creating branded experiences centered on the game, the key will be to cater to the viewing motivations of their particular audience to avoid creating a distraction.

As for the theoretical implications, this study provides some evidence to argue that dispositional needs may not be the strongest factor in understanding the enjoyment of the Super Bowl. While general fanship of the NFL was a strong predictor of enjoyment, the model from Table 6 shows that fanship of the Patriots was a significant, but much weaker, predictor and fanship of the Seahawks was not significant all. Additionally, together, the dispositional factors only accounted for an additional 2.3% of the variance in enjoyment.

Furthermore, the current study adds to the entertainment and sports media literature by exploring how the use of a second screen affects a viewer's enjoyment. While the frequency of second screen use was negatively related to enjoyment, this study provides evidence to support the notion that there are some factors that may impact this relationship (e.g. related versus unrelated uses). Future studies should look at additional factors as well as explore the effects of second screen use on enjoyment in different contexts (e.g. different television events or genres).

Though the sample was random and young-adults are of particular interest for advertisers, the sample is limited in that it only includes college students from a single university. Future research should extend these findings to other populations.

One limitation of this study, as well as other studies of second screen use, is the assumption that the television is the primary medium. For some viewers, their smartphone, tablet, or computer may be the primary medium, while the television is actually the second screen. Future studies should investigate this distinction and specifically explore cases in which different media are the primary screen.

Also, data only reflected a single televised sporting event. Furthermore, the Super Bowl is unique in that it is a national event with a substantial portion of the viewers who are not necessarily fans of either team playing. According to the data, respondents used a second screen significantly less frequently during the Super Bowl (M=2.79, sd=.821) than they usually do while watching sports (M=3.02, sd=..824). Future research should investigate local sporting events and collect data around regular season games where second screen use may be more reflective of their normal habits to allow for more generalizability.

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Appendix

Information sheet:

"The Effect of Second Screen Use on the Enjoyment of Televised Sports" You are invited to be in a research study of Super Bowl viewers who may or may not use multiple media while watching the game. You were selected as a possible participant because you are a student at the University of Minnesota. We ask that you read this form and ask any questions you may have before agreeing to be in the study. This study is being conducted by: Jordan Dolbin, Graduate student in the School of Journalism and Mass Communication at the University of Minnesota Procedures: If you agree to be in this study, we would ask you to do the following things: Fill out the following survey about Super Bowl viewing and multiple media use. The survey should take 15-20 minutes to complete. Participants will be entered into a drawing to win a $100 Target gift card. Chances of winning the raffle are dependent on how many individuals respond to the survey. The maximum number of respondents is 2,500. Confidentiality: The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records. Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to participate will not affect you current or future relations with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships. Contacts and Questions: The researcher conducting this study is: Jordan Dolbin. You may ask any question you have now. If you have questions later, you are encouraged to contact them at Murphy Hall, Room 300, 206 Church Street Southeast, Minneapolis, MN 55455, 562-305-4713, dolbi002@umn.edu or you can contact Jordan's academic advisor, Dr. Brendan R. Watson: brwatson@umn.edu, 612-625-0576. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650. By clicking on the "Next" button, you are consenting to participate in my study. If you would like a copy of this information for your records, please do not hesitate to ask.

Q2 Did you watch the Super Bowl?
❍ Yes
❍ No

Q5 Please answer the following questions using a scale from "Not At All" (1) to "Very Much" (7).

	1	2	3	4	5	6	7
How much do you identify as a sports fan?	○	○	○	○	○	○	○
How much do you identify as a fan of the National Football League (NFL)?	○	○	○	○	○	○	○

Q7 On average, how often do you watch sports on television?
○ Never
○ Less than Once a Month
○ Once a Month
○ 2-3 Times a Month
○ Once a Week
○ 2-3 Times a Week
○ Daily

Q8 About how much of the Super Bowl did you watch?
○ Less than One Quarter
○ One Quarter
○ Half of the Game
○ 3 Quarters
○ The Entire Game

Q9 Where did you watch the game and with whom? (Please use the text box below to indicate your answer.)

Q10 Using a scale from Strongly Disagree (1) to Strongly Agree (7), please indicate how strongly you agree or disagree with each of the following statements.

	1	2	3	4	5	6	7
I watched the Super Bowl because it gives me the opportunity to temporarily escape life's problems.	○	○	○	○	○	○	○
I watched the Super Bowl because it allows me to forget about my problems.	○	○	○	○	○	○	○
I watched the Super Bowl because watching sports is like daydreaming because it takes me away from life's hassles.	○	○	○	○	○	○	○
I watched the Super Bowl because I get pumped up when I am watching a team that I like or dislike.	○	○	○	○	○	○	○
I watched the Super Bowl because I like the stimulation I get from watching sports.	○	○	○	○	○	○	○

I watched the Super Bowl because I enjoy being physiologically aroused by the competition.	○	○	○	○	○	○	○
I watched the Super Bowl because I enjoy the beauty and grace of sports.	○	○	○	○	○	○	○
I watched the Super Bowl for the artistic value.	○	○	○	○	○	○	○
I watched the Super Bowl because to me sports are a form of art.	○	○	○	○	○	○	○
I watched the Super Bowl because it gives me an opportunity to be with my family.	○	○	○	○	○	○	○
I watched the Super Bowl because it gives me an opportunity to be with my spouse or significant others.	○	○	○	○	○	○	○
I watched the Super Bowl because it makes me feel	○	○	○	○	○	○	○

good when the team I'm rooting for wins.							
I watched the Super Bowl because it increases my self-esteem.	○	○	○	○	○	○	○
I watched the Super Bowl because the team I root for's successes are my successes and their losses are my losses.	○	○	○	○	○	○	○
I watched the Super Bowl because most of my friends are sports fans.	○	○	○	○	○	○	○
I watched the Super Bowl because I am the kind of person who likes to be with other people.	○	○	○	○	○	○	○
I watched the Super Bowl because I enjoy watching sports more when I am with a large group of people.	○	○	○	○	○	○	○
I watched the Super Bowl because of the	○	○	○	○	○	○	○

entertainment value.							
I watched the Super Bowl because it is a good time.	○	○	○	○	○	○	○
I watched the Super Bowl because, to me, sports spectating is simply a form of recreation.	○	○	○	○	○	○	○

Q11 In general, how frequently do you use a second screen (e.g. smartphone, tablet, laptop) while watching television?
○ Never
○ Somewhat Frequently
○ Frequently
○ Very Frequently

Q13 While watching the Super Bowl, I used my second screen (e.g. smartphone, tablet, laptop)...
○ Never
○ Somewhat Frequently
○ Frequently
○ Very Frequently

Q14 What media device(s) do you have access to? (Select all that apply.)
❑ Smartphone
❑ Tablet
❑ Computer
❑ Game Console
❑ Other _____

Q15 What media device(s) did you use during the Super Bowl? (Select all that apply.)

❑ Smartphone

❑ Tablet

❑ Computer

❑ Game Console

❑ Other _____

Q16 How did you use your second screen during the game? Select all that apply. For example, if you used both text messaging and Twitter to "talk with friends about the game", you would check the box in the "Text Message" column AND the "Social Media" column. Also, if you did not use your second screen for one of the listed uses (e.g. "look up statistics or news about the game or players"), simply leave that row blank. If your reason for using a second screen is not listed, please use the text box under the "other" option to describe it.

	Text Message	Internet (other than social media)	Social Media	Use an Application (other than social media)	Other (e.g. game console)
Talk with friends and/or family about the game	❑	❑	❑	❑	❑
Talk with friends and/or about things unrelated to the game	❑	❑	❑	❑	❑
Look up statistics or news about the game or players	❑	❑	❑	❑	❑
To browse information or news unrelated to the game	❑	❑	❑	❑	❑
To browse others' opinions about the game	❑	❑	❑	❑	❑
To play a game	❑	❑	❑	❑	❑
To work on schoolwork	❑	❑	❑	❑	❑

or work					
To celebrate a big or important play	❏	❏	❏	❏	❏
To see others' celebrate or show excitement about a big or important play	❏	❏	❏	❏	❏
To see pictures from the game	❏	❏	❏	❏	❏
To watch a video replay from the game	❏	❏	❏	❏	❏
To interact with one of the teams playing (e.g. through social media)	❏	❏	❏	❏	❏
To kill time	❏	❏	❏	❏	❏
To interact with fellow fans	❏	❏	❏	❏	❏
To comment on the game (not to one particular person)	❏	❏	❏	❏	❏
Other	❏	❏	❏	❏	❏
Other	❏	❏	❏	❏	❏
Other	❏	❏	❏	❏	❏

Q17 Please answer the following questions using a scale from "Not At All" (1) to "Very Much" (7).

	1	2	3	4	5	6	7
How enjoyable was the overall game watching experience?	○	○	○	○	○	○	○
How entertaining was the overall game watching experience?	○	○	○	○	○	○	○
How pleasurable was the overall game watching experience?	○	○	○	○	○	○	○
How captivating was the overall game watching experience?	○	○	○	○	○	○	○

Q18 Please use the scale below to indicate your opinion of each team.

	3	2	1	0	1	2	3
From "hate" to "love," what is your opinion of the Seattle Seahawks?	O	O	O	O	O	O	O
From "hate" to "love," what is your opinion of the New England Patriots?	O	O	O	O	O	O	O

Q19 Please use the scale below to indicate your feeling toward the outcome of the game.

	3	2	1	0	1	2	3
From "negative" to "positive," my feelings regarding the outcome of the game are...	O	O	O	O	O	O	O

Q17 Please select your gender.
O Male
O Female

Q18 Please select your year in school.
- ○ Freshman
- ○ Sophomore
- ○ Junior
- ○ Senior