

Running head: BINGE TV VIEWING ON MOBILE DEVICES

Assessing the Role of Mobile Devices in
Binge Television Viewing

Douglas A. Ferguson

College of Charleston

Clark F. Greer

Liberty University

Linda Mintle

Liberty University

Paper presented to the annual meeting of the

National Communication Association

Salt Lake City

November 2018

Abstract

Smartphones and tablets are enabling media consumers to watch television programs at diverse locations and times. Additionally, mobile technologies enhance opportunities for individuals to view multiple episodes of television programs at a single sitting, referred to as binge TV watching or marathoning. This exploratory study examined the extent to which mobile devices played a role in binge watching. Results of a survey showed that the amount of time spent watching TV on mobile devices was not related to mobile device viewing motives. However, negative attitudes about binge viewing were related to watching too much television in general. Also, binge affinity predicted psychological effects of binge watching.

Assessing the Role of Mobile Devices in Binge Television Viewing

Digital technologies continue to alter the dynamics of television viewing by giving audiences convenience and flexibility when it comes to watching their favorite programs. By 2014, agreements were enabling such online TV providers as Netflix to be carried on cable and for older HBO shows to be available online via amazon.com (Bray, 2014). Viewers also are becoming more selective about when they watch shows. At least one report found that time spent viewing television on a set was increasing, but there was also an increase in time-shifted viewing (Friedman, 2014a). Furthermore, streaming services put viewership in the hands of the audience (Castillo, 2015).

In recent years, mobile devices have enabled consumers to watch television programming at any time and in any location. However, research about the extent of mobile television consumption has yielded mixed findings. From 2011 to 2013, TV viewing on mobile devices increased from three minutes a day to 22 minutes a day (eMarketer, 2014). Those increases in viewing television on mobile devices are incremental by comparison to the fact that most people still view television on a traditional set (Friedman, 2014b) for around four and a half hours a day (eMarketer, 2014).

Streaming technologies also contribute to changes in the ways consumers watch television, including binge watching. For example, one market study found that Netflix was the predominant streaming source for binge viewing of season-long series (Friedman, 2015). Indeed, a survey by Netflix in 2013 found that just over 60% of online viewers were “binge-watching 2-3 episodes at least every few weeks” (Spangler, 2013, para. 1). Other market research noted that

binge viewing had moved from an activity that happened only at certain times of the year to a more routine means of viewing television (Robins, 2015). Some viewers will watch a complete season of a show in one weekend (Rutsch, 2015), which raises concerns about whether such activity leads to negative psychological consequences (see e.g., Lloyd, 2013; Wheeler, 2015).

This study examines the relationship between two pertinent developments in technology and online television distribution. First, it updates prior research dealing with the uses and gratifications of mobile devices to view television programs. Specifically, it examines viewing motivations based on more than three decades of media gratifications research to determine the relationship between traditional and mobile television viewing. Second, this study considers two related influences of mobile television viewing: binge viewing (Friedman, 2014b) and device interchangeability (Abbruzzese, 2014). The former highlights the psychological aspect of viewing and denotes individuals who view multiple TV program episodes in one sitting (Friedman, 2014b). The latter includes the notion that consumers begin reading content on one device and finish reading that content on another device (Abbruzzese, 2014). For this study, interchangeability will be specifically related to TV programs that a viewer starts watching on one device, and then finishes watching on another.

Uses and Gratifications of Television

The fact that television viewers choose to consume content either via traditional TV set or through mobile devices is based on the theoretical foundation of an active audience.

Accordingly, media audiences are seen as selective and involved in their use of communication (Levy and Windahl, 1984). Furthermore, scholars have argued that the notion of activity is not singular, but varied regarding the type of medium, content consumed, the extent of media use and the purpose of selecting a given medium (Rubin, 1993).

Since the early 1980s, research has examined motivations for using electronic media and the gratifications obtained from that usage. Early studies of television audiences divided users into two groups: those who viewed out of habit and instrumental viewers who viewed for informational purposes (Rubin, 1983, 1984, 1993). Individuals classified as habitual were ritualized viewers and tended to watch television to pass time. For them, affinity was toward the medium, without regard to the program. Informational viewers were intentional in their selection and placed importance on content.

Prior studies have found that television news viewers are also selective (Levy and Windahl, 1984). As posited with TV viewership in general, research found that there were various levels and types of interactivity for TV news audiences. Also important in the findings was the role of ongoing use of particular content. The higher gratifications that were obtained, the more people exposed themselves to content (Levy and Windahl, 1984).

RQ1: What is the relationship between affinity for mobile devices and satisfaction with using those devices for watching television?

RQ2: What is the relationship between time spent viewing television on mobile devices and television viewing motives?

Television and Emerging Media

The advent of the Web in the 1990s prompted media scholars to question whether the amount of television viewing was declining at the expense of time using online technology. Concomitant with that concern was the proposed effect that emerging media was having on the notion of an active audience. Indeed, technology has provided new opportunities to acquire and use multiple channels (Ruggiero, 2000), as well as interactivity with content sources and "with other users" (Sundar and Limperos, 2013). Gratifications might therefore be associated

with "technology itself" (Sundar and Limperos, 2013, p. 506), thus, expanding research in gratifications beyond what has been traditionally considered.

Four decades ago, Katz, Blumler and Gurevitch (1974) posited that people have certain needs that media fulfill. They further proposed that a particular medium possesses certain characteristics that help to satisfy needs and that attributes of a given medium are more suited than another medium for need fulfillment. At the same time, Katz and colleagues argued that the inverse is also possible, in that there are similarities between some media so that a person's needs can be met just as well by one or the other medium. The tendency to substitute one innovation for another is contingent on the perception that the new item is better than the old, including quality, as well as other attributes and functions (Lin, 2004).

Based on the concept of media substitution, Ferguson and Perse (2000) examined the extent to which use of the Web serves a functional alternative to watching television. They found that use of the Web was similar in some respects to watching television. The most prominent reason was for entertainment, followed by passing time. However, the researchers argued that the Web might not replace television in that way (passing time). Additionally, the Web did not serve as an alternative for relaxing, since browsing the Internet requires action by the user.

Research by Kaye and Johnson (2003) focused on the relationship between use of the Internet and traditional media for political information. They found that, for about a third of respondents, more time spent on the Internet was related to less time being spent with television for political news. Overall, between 1996 and 2000, respondents decreased traditional media use as they increased their use of online media. One reason for the finding might have been the convenience of the Web for information. Lin (2004) found that the adoption of webcasting was

associated with the experience of the user. People who were more likely to adopt the technology were more apt to reduce their use of traditional television and magazines.

Limited research has examined the relationship between viewing television on a traditional set and watching television programs on mobile devices. One study focused on whether the iPad was replacing traditional TV sets for viewing ([Authors], 2014). Results showed that instrumental and ritualistic motivations were significant predictors in using a tablet computer to watch television. The researchers concluded that viewing television on an iPad did not appear to be replacing time spent with traditional television. Instead, the amount of time spent viewing traditional TV was positively correlated with watching TV on a tablet computer. Another study found that TV viewers tended to pay more attention to and become more absorbed in content when watching on a TV screen as compared to watching on an iPad (McCreery and Krugman, 2015). The exception was individuals who paid “high attention” to viewing on an iPad. When compared with smartphones, laptop computers and TV sets, the portability of viewing television on an iPad was a benefit over laptops. Additionally the iPad was mobile and offered more control regarding the time and location of viewing TV shows.

As noted in various research findings, the notion of one medium substituting for another is more complex than simply time spent with each medium. Rather than one medium replacing another, it is possible that new media are being incorporated into time spent with older media (Newell, Pilotta and Thomas, 2008). Although viewing video on smartphones represents a small percentage of daily viewing time, cross-platform viewing (Lafayette, 2014) and viewing video content on mobile devices (eMarketer, 2014) are two newer viewing behaviors of interest to the television industry and media researchers. This form of media engagement further underscores

the notion that activity is not singular, but varied regarding the type of media, content, extent of use and purpose of media selection (Rubin, 1993).

Given the ability for media consumers to access video on various devices, the notion of an active audience now needs to include the potential for device interchangeability, in which people start accessing content on "one device and finish on another" (Abbruzzese, 2014).

According to one report, at least half of the people who own two mobile devices used them interchangeably for accessing content (Abbruzzese, 2014). Although the report specifically highlighted the reading of print material, the notion of viewing a television program on one device and then on another is pertinent for the present study. The ability of television audiences to view programming interchangeably, especially on mobile devices, might contribute to what Lin (2004) called "technological fluidity." This concept denotes the ability of a device to provide a combination of features, such as text, video, graphics and communication.

RQ3: Is there a relationship between binge watching and switching viewing devices?

Psychological Factors in Binges and Binge Television Viewing

Inherent in the assumptions of uses and gratification theory are social and psychological factors that serve as predecessors of one's needs and the selection of sources, including media, to gratify those needs (Katz, Blumler and Gurevitch, 1974). Considering those factors in media selection is crucial to understanding motivations, particularly as they relate to dependency on a medium (Rubin and Windahl, 1986). In early studies of TV viewing motivations, habitual viewers were denoted by their affinity to the technology (Rubin, 1984). Later research found that television habit was associated with a particular time of viewing (Rosenstein and Grant, 1997).

Therefore, as with other considerations of media consumption, habit can also vary according to the audience member.

More recently, the notions of habit and media dependency have merged into binge watching or “marathoning” as termed in a report by Viacom (2014). Binge viewing, or binge watching as it was first called in 1998, is a relatively new phenomenon brought on by changes in media technology (Zimmer, 2013). Technology contributes to binge watching by enabling viewers to record programs. In addition, subscription services such as Netflix and Hulu Plus permit viewers to consume multiple episodes of TV shows in immediate sequence (Jurgenson, 2012). Multi-platform distribution of television content now makes it possible for viewers to self-select programs and watch at their own convenience. This proliferation of media outlets has changed the landscape of content delivery. As a result, binge viewing is a possible consequence.

Friedman (2014b) noted that 70 percent of television viewers self-identify as binge-viewers, ranging in level from infrequent ("once a month or less") to frequent, which is "a few times a week" (para. 4). Age appears to be a factor in the extent of viewing. Nearly two-thirds of binge viewers were millennials (Friedman, 2014b), who in 2014 were between the ages of 18 and 33 (Pew Research Center, 2014). Graybeal (2014) found that just under two-thirds of college students he polled watched hour-long shows and that more than half of respondents binge watched two to three episodes of a series. Just over two-thirds binge watched online, half watching via a laptop, but few individuals watched on mobile devices.

A problem of definition

Whether binge viewing is a healthy adaptive behavior or an addictive-like behavior remains a question needing further research. Problematic in the research on binge viewing is the lack of a standardized or a unified definition as to what constitutes a binge. For example,

McNamara (2012), a Los Angeles Times Television critic, defines binge viewing as “any instance in which more than three episodes of an hour long drama or six episodes of a half-hour comedy are consumed at one sitting.” A market research study defined binge viewing as “three or more episodes of one series in a single setting” (Friedman, 2014b, para. 3). Other definitions include, “watching more than one episode when you want to” (Rutledge, 2014) or watching two or more episodes in one sitting (Sung et al., 2015). The Oxford Dictionary (2013) defines binge-watching as “to watch multiple episodes of a television program in rapid succession.”

Also contributing to definition problems is the variability of episodes involved in binge viewing. Because of this variability, Horvath (2004) suggests that rather than concentrate on the number of episodes or hours of viewing, a better focus would be on the role that binge viewing plays in terms of potential interference with life tasks. If one is preoccupied with viewing, neglecting personal responsibilities, relationships, and distressed over the time spent binge viewing, binge viewing becomes problematic. These two markers, interference and distress, are consistent markers in the diagnosis of addiction as well.

Bingeing defined

The Diagnostic and Statistical Manual of Mental Disorders (DSM V) the psychiatric guide for diagnoses, discusses bingeing as it relates to food and drink. In terms of binge viewing, the DSM V is silent, but Sussman and Sussman (2011) describe the behavior as a craving and preoccupation to view, along with a loss of control as to how long one will watch.

Binge eating, drinking and viewing share the common characteristics of recurring episodic behavior that occurs in a relatively short amount of time and may interfere with daily routine. In both binge eating and drinking, the rapid consumption feels out of control. The binger senses the inability to gain control and has problems regulating use. Withdrawal is experienced when attempts to stop are made. Whether this is true for the binge viewer may vary according to the viewer. Bingeing, by definition, does not assume moderation. However, behavior that induces guilt, distress and/or interferes with life activities is cause for further study.

Issues in assessing binge viewing

Binge viewing is not always defined as a negative behavior. In fact, a survey conducted by Harris Interactive for Netflix found 73 percent reported positive feelings about binge watching. Thus, assessment of binge behavior does not necessarily imply problematic use unless that use is determined to be negative by the viewer. The absence of a negative view of binge viewing may also contribute to the behavior itself.

Motivations behind binge viewing

The easiest explanation for why people binge view may simply be because they can. Access, affordability and opportunity provide viewers with the means to consume at their own rate. With easy access, binge viewing is a way for consumers to personalize viewing habits and take charge of their schedules. It may be argued that this type of autonomy increases self-efficacy, putting the control of viewing behavior in the hands of the viewer and theoretically reducing stress.

Cultural anthropologist McCracken (2013) wonders if binge watching fulfills a need for longer storytelling in today's digital world. Instead of tuning out to escape, viewers may be tuning in to a different world, a type of newer but enjoyable escapism, one that also provides education and entertainment.

Socially, one can be motivated to binge watch in order to stay in tune with specific shows and participate in conversation around those shows (Ward, 2014). This is especially true if there is perceived competition regarding keeping up with plots and storylines as a way to engage others. One may have to binge view to stay current.

According to Sung, Kang and Lee (2015) and Willens (2013), binge viewing can also be a social activity. When peers get together to binge view, the potential to bond and form a community is present. Thus, viewing communities, both on-line and face-to-face, increase social connection.

To further understand the motivations behind binge viewing, Bingo and Devasagayam (2014) conducted a qualitative study using three focus groups. They found preliminary support for addiction and dependence regarding this type of media stimulation, with 60% of study participants admitting addiction to a particular program. Although the sample was small, the results provide potential insights into possible motivations for binge viewing, which include: (1) the need for closure to finish a series, (2) a way to relax, (3) a way to provide extra noise in the house, (4) activity for boredom, (5) availability, (6) convenience, (7) feeling "addicted", and (8)

feeling attached to a show character. One-sided, unconscious bonds between viewers and characters were reported as a possible factor in binge viewing as well.

The content itself, the richness of characters and plots, serves as an escape for those who prefer to fantasize another reality. Escapism is often a motivation for bingeing. Escapism into anything that takes away from reality can lead to a lack of social skills and interpersonal competence also noted in working with addictions (Rollins, 2013). However, bingeing can be a safe substitution addiction, according to Sussman and Black (2008). In a study conducted for Netflix, another research firm found that motivations for binge viewing included "refuge from busy lives," increased enjoyment from a show and the ability to watch shows at a convenient time (PR Newswire, 2013).

The function that binge viewing serves to the viewer is important. Rutledge (2014) postulates that the potentially pathological nature of binge viewing may lie in the way it is used. When used to escape significant life problems, fill loneliness or feed depression, binge viewing has negative consequences. For example, McIlwraith (1998) discovered a small subsample of self-identified TV addicts who reported higher rates of anxiety and used TV to distract themselves from negative thoughts and boredom.

The positive and negative sides of binge viewing

On the positive side, Spangler (2013) contends binge viewing is not unusual behavior, rather a way for the viewer to maintain control over viewing habits. Netflix executive Todd

Yellin would agree and prefers to label binge viewing as a marathon, rather than a binge (Jurgensen, 2012).

On the negative side, the physical side effects of binge viewing must also be considered. Binge viewing is a sedentary behavior often accompanied by eating. Due to the changing lifestyles of families and growing availability of media offerings, concerns about the impact of excessive screen viewing on both children and adults are growing. For example, a study by Jago et al. (2014) concluded that increased risk of cardiovascular disease was associated with high levels of adult screen viewing. In children, an increased risk of obesity is related to high levels of screen viewing. Furthermore, children's habits in terms of screen time are closely associated with their parents.

Several researchers have focused on potential effects of binge viewing. Sung et al. (2015) noted concerns over physical fatigue and risk of obesity as consequences that suggest binge viewing, thus concluding this is not harmless behavior. The physical consequences are not necessarily immediate. However, inactivity, over time, can lead to heart disease and obesity. Furthermore, Sung et al. (2015) found an association between binge viewing and feelings of depression and loneliness in people between the ages of 18-29 years of age. Of those surveyed, 237 people met the researchers' criteria for binge viewing. The more depressed and lonely people felt, the more likely they were to binge view. Veerman et al. (2012) found that viewers who watched more than six hours of television a day, lived 4.8 fewer years than non-viewers or lighter viewers. In terms of interference in daily life, Kolotkin (1987) noted that people may find

themselves obsessing over shows during non-viewing hours, another characteristic of food and substance bingeing. If binge viewing causes a person to miss work or isolate from others, the consequences interfere with daily living. Linville (2013) also supports the notion that binge viewing can interfere with daily life as well as cause harmful effects on the body.

Similar to other addictions, “withdrawal,” depression and emptiness can be felt at the close of a season or program. In addition, some viewers feel emotionally exhausted by the drama of each episode (Smith, 2014; Ward, 2014). Vervaet (2004) notes that media bingers may feel a compulsion to watch as an over responsiveness to video stimuli. This stimulation creates a dependency. Thus, the propensity to view yet another show is similar to the addiction craving that is characteristic of the addictive process (Lloyd, 2013).

RQ4: What is the relationship between binge viewing and affinity toward mobile devices?

RQ5: What is the relationship between binge viewing on mobile devices and TV viewing?

RQ6: What is the relationship between psychological factors in binge viewing and viewing habits?

Method

An online survey was used to measure behaviors and attitudes of a self-selected sample of adults in October 2015. Because of the exploratory nature of this study, respondents were recruited by sharing an online invitation on academic sites (e.g., CRTNET, Association of Internet Researchers on Facebook) and the authors’ local campuses (plus one other campus in

Texas where a colleague volunteered to solicit participants). Additional respondents were invited via Twitter and Facebook posts wherever binge watchers might see them (e.g., Facebook fan pages for popular Netflix programs). This self-selected sample garnered responses from four different continents (with the vast majority from the United States). A total 322 people responded to part of the survey, of which 210 adults completed all the items that formed the key variables and indexes. After identifying 18 cases with erratic responses (e.g., self-contradicting responses or the same response for multiple consecutive items), the final sample was reduced to 192 valid cases.

The age of the final sample ranged from 18 to 73 ($M = 30.72$, $SD = 14.22$, $n = 190$). The educational background reflected a large percentage of respondents with some college but no degree (38 percent), followed by 21.9 percent with a baccalaureate degree, 12.0 percent with a master's degree, and 16.7 percent with doctoral degree. Only 5 participants (2.6 percent) had not completed high school and 17 (5.7 percent) held two-year degrees. Females accounted for 70.8% of the sample ($n = 190$).

Time spent watching TV. Respondents were asked to estimate in hours and minutes their time watching TV per day. Converting their answers to hours, traditional TV viewing ranged from 0 to 8 hours ($M = 1.54$, $SD = 1.62$). The number of hours spent watching on a tablet ranged from 0 to 16 hours ($M = 0.52$, $SD = 1.57$), on a smartphone from 0 to 6 hours ($M = 0.27$, $SD = 0.72$), and on laptop/desktop from 0 to 8 hours ($M = 0.97$, $SD = 1.38$). When asked to register their agreement on a five-point Likert scale to four items about watching too much TV in general, the summed answers ranged from 4 to 20 ($M = 8.34$, $SD = 3.85$, $\alpha = .85$).

Mobile device use, satisfaction, and affinity. Respondents indicated on a five-point scale how satisfied they were using a mobile device in general, to watch videos, and for

communicating (adapted from Perse and Ferguson, 1993). Responses ranged from 1 (not at all satisfied) to 5 (very satisfied). General use scored a mean of 4.27 ($SD = 0.80, n = 188$), communicating with others measured 4.41 ($SD = 0.83, n = 184$), and watching videos averaged 3.63 ($SD = 1.06, n = 177$). Five affinity items were adapted from statements used in previous research (Rubin, 1983) and measured on a five-point Likert scale. Cronbach's alpha (.83) was measured for mobile device affinity. See endnotes for the wording.

Mobile viewing motivations. We adapted motivation items from several studies that derive from Rubin's (1983, 1984) television viewing motives scale. Respondents were asked why they use a mobile device to watch television. The survey included 27 five-point Likert items that measured ritual motives (12 items, $\alpha = .91$), instrumental motives (12 items, $\alpha = .88$), and relaxation (3 items, $\alpha = .87$).¹ One item asked how often respondents began watching on a TV set and finished watching on a mobile device. Their answers ranged from 1 (never) to 5 (all the time) with the mean measuring 2.02 ($SD = 1.20, n = 188$). When asked to choose a standard Likert agreement response to "I prefer to watch alone when binge-watching on a large screen," their answers ranged from 1 to 5 ($M = 3.05, SD = 1.38, n = 179$). With regard to how often they used mobile devices for binge-watching, the responses ranged from 1 (not at all) to 5 (all the time) with $M = 2.34 (SD = 1.27, n = 130)$.

Binge frequency. Respondents were asked how many times they watched three or more episodes of a TV show in one sitting last week. Their answers ranged from 0 to 10 times ($M = 2.03, SD = 2.15, n = 190$). Assuming they may not have binge-watched the previous week, participants were asked to identify the most recent show that they binge-watched (three or more episodes) and how many episodes they viewed back-to-back. Their responses ranged from 0 to 14 episodes ($M = 3.93, SD = 2.21, n = 184$). With regard to the largest number of back-to-back

episodes watched, the answers ranged from 0 to 24 episodes ($M = 8.43$, $SD = 4.82$, $n = 188$). The typical number was also measured and ranged from 0 to 20 episodes ($M = 2.98$, $SD = 1.88$, $n = 189$).

Binge watching affinity. The same affinity items asked earlier in the survey were repeated with the prompt “watching multiple episodes of my favorite program.” Cronbach’s alpha (.81) was measured for binge-watching affinity, after deleting one of the five measures from the index. The index ranged from 4 to 17 for the summed responses ($M = 8.07$, $SD = 3.35$, $n = 168$).

Binge watching factors. Respondents were asked to register their agreement on a five-point Likert scale to eight items regarding their negative, psychological attitudes toward binge-viewing: “I feel I need to stop binge-watching, but I continue to view anyway,” “Binge-viewing interferes with other activities that I need to do,” “I am embarrassed by the amount of time I spend viewing TV,” “I would be embarrassed to tell people how much time I spend on TV viewing,” “I feel guilty after a binge-watching session,” “I feel depressed after a binge-watching session,” “I feel disgusted with myself after a binge-watching session,” and “I feel distressed after a binge-watching session.” Cronbach’s alpha (.87) was measured for psychological binge-watching factors. The index ranged from 8 to 38 for the summed responses ($M = 15.86$, $SD = 6.75$, $n = 163$).

Results

The first research question was answered by measuring the correlation between mobile device affinity and using mobile devices for watching television. The result was Pearson’s $r(155) = .40$, $p = .000$, accounting for 16 percent of the variance in use associated with affinity. Research question two was answered by correlating time spent watching videos on a mobile

device with ritualistic motives ($r = .04$) and instrumental motives ($r = .07$), neither of which were statistically significant ($n = 187$).

The third research question looked at TV viewing habits with regard to device interchangeability. As noted above, frequency of starting on one device and finishing on another (1=never and 5=all the time) was somewhat low ($M = 2.02$, $SD = 1.20$, $n = 188$). That “device-switching” measure was not correlated with mobile TV motivations from RQ2 with similar results for ritualistic and instrumental motives, respectively: $r(183) = .11$, $p = .15$ and $r(183) = .03$, $p = .72$. When the five habit or boredom motives were isolated from the ritualistic index, however, the Pearson’s $r(173)$ increased to $.23$ ($p = .002$) for each. Device-switching also had one obvious connection to time spent viewing TV on a mobile phone: $r(184) = .14$, $p = .049$, which was barely significant. On the other hand, the largest single correlation was between device-switching and the Likert item “When binge-viewing, the pop-up window to ‘next episode starting in ___ seconds’ (with a countdown) discourages me from stopping” ($r(175) = .27$, $p = .000$). Perhaps the best way to answer RQ3 was correlating device-switching with binge-watching affinity. In this case, $r(163) = .23$, $p = .003$, accounting for 5.2 percent of the variability in device-switching.

Small but significant correlations were measured to answer RQ4 with regard to total binge viewing and affinity to mobile devices. Although affinity was unrelated to binge-watching last week ($r(152) = .08$, $p = .35$), mobile affinity was very slightly correlated with highest number of binge-watched episodes ($r(150) = .18$, $p = .03$), and typical binge-watched episodes ($r(152) = .20$, $p = .016$) only accounting for 4 percent of the variance.

Research question five sought to determine whether there was a relationship between binge viewing on mobile devices and TV viewing motives. Analysis revealed a small relationship between mobile viewing and ritualistic motives ($r(139) = 0.24$, $p = .00$). The relationship

between instrumental ($r(139) = 0.20, p = .02$) viewing motives and mobile binge viewing was also significant, but only slightly smaller in strength than instrumental motives.

The final research question asked about the relationship between psychological factors in binge viewing and viewing habits. Although binge watching factors were unrelated to time spent viewing on mobile devices ($r(160) = .03, p = .68$), negative attitudes were moderately-to-strongly associated with affinity for binge-watching ($r(149) = .36, p = .000$) and watching too much TV in general ($r(157) = .65, p = .000$). More important, the motivations for using mobile devices showed a clear split: ritualistic motives were more strongly associated ($r(161) = .34, p = .000$) with psychological factors than were instrumental motives ($r(161) = .09, p = .25$).

A hierarchical regression was used to determine which variables most predicted psychological effects of binge viewing. In the first model (demographics), gender was the most significant predictor ($\beta = .201, t(137) = 2.289, p = .024$). Adding frequency of binge viewing in the second stage (number of back-to-back episodes, highest number of binge-watched episodes) resulted in a nonsignificant change in F . Binge watching on a large screen (stage 3) resulted in a statistically significant F change, with an adjusted R^2 of 8.8%. However, the largest change in the model was the addition of binge affinity at the fourth stage, which significantly explained 14.8% of the variance with a β of .278 ($F(1, 133) = 10.494, p = .002$). As affinity towards TV shows increases, so also do the psychological effects of binge watching. Additionally, gender, which had been a significant predictor in the first three models, failed to reach significance in the fourth stage. Together, these findings suggest that an individual's connection to and the perceived importance of binge-watched television shows was predictive of psychological effects, but not frequency of binge watching or demographics of viewers.

Discussion

Mobile devices, such as smartphone and tablets, are enabling consumers to watch television programming at diverse locations and times. One market research report noted that, from 2011 to 2013, viewing television on mobile devices increased from three minutes a day to 22 minutes a day (eMarketer, 2014). Use of this technology by viewers has captured the attention of Nielsen, which announced in late 2013 that it would start including TV viewing on mobile devices in its viewership data in 2014 (Stelter, 2013a). Mobile technologies may also provide opportunities for consumers to view multiple episodes of television programs at a single sitting, referred to as binge watching. According to research by Viacom (2014), the ability to use various devices contributes to TV viewers becoming more connected to shows. Given these two recent issues in television viewing, the purpose of this study was to examine whether mobile devices play a role in binge viewing.

Despite the increased use of mobile devices for viewing TV and videos, industry data has shown that traditional television sets still comprise a highly accessed source of TV viewing for most people (Friedman, 2014b). Commensurate with that data, the present study found that there was a higher average amount of time spent daily viewing programs on a TV set, followed by viewing on a laptop. There was relatively little time spent viewing television programs on a tablet or smartphone. Specifically, findings of this study also roughly coincide with the amount of time viewers spent watching TV as noted in an eMarketer report (2014).

Television viewing in the present study focused on a number of pertinent and timely issues, primarily those associated with mobile device use, viewing motives and binge watching. Findings showed a moderate relationship between affinity for mobile devices and satisfaction with using those technologies for watching television in that device owners feel an attachment to

their technologies when it comes to viewing TV on a mobile device. Respondents indicated they were highly satisfied with using mobile devices to communicate with others, but less satisfied with using the technologies as a way to view television programs. This finding is not altogether unexpected, especially given the size of the screen of smartphones. One study that examined using tablets for viewing television found that few respondents used those devices to view video ([Authors], 2014). One contributing factor to this finding might be the overall decline in satisfaction of tablets, resulting in the differences in expectations and outcomes in using the devices (Barr, 2014). Another contributing factor is the growing popularity of phablets, which are smartphones with larger screens (Walsh, 2014).

Early uses and gratifications research found two basic types of viewers: those who viewed out of ritual or habit, and viewers who watched for instrumental or purposeful reasons (Rubin, 1983). An examination of time spent viewing TV on mobile devices and television viewing motives showed there were no relationships between the variables. The amount of time respondents viewed TV on a mobile device had no bearing on whether they watched for ritualistic or instrumental motives. This suggests that motivations for viewing TV on mobile devices are not as clear cut as motives for viewing programs on a traditional set. Also, only a moderate amount of time was used to binge watch on mobile devices. Instead, respondents indicated they binge watched alone on a large screen. Despite the growth in recent years of mobile devices, there does not appear to be a connection between viewing motivations and those devices.

Compared with prior TV research, viewers today have a broader range of content from diverse sources, including means of viewing (traditional, mobile and computer) and mode (streamed, live, broadcast, cable, time-shifted). As noted earlier in this paper, acquiring media

content is not a singular form of activity, but one that differs based on how and why various media are selected (Rubin, 1993). Results of the present study might hint at potential interchangeability of motives based on means, mode and content.

Abbruzzese (2014) noted that there was some degree of accessing print content on one device and finishing reading on another device, referred to as device interchangeability. The question in the present study was whether individuals who started watching television on one device completed viewing a program on another. The analysis indicated low instances of interchangeability for TV viewing. There were no significant relationships between ritualistic and instrumental viewing motives and the extent of interchangeability. However, there was a significant relationship between interchangeability and viewing motives based on boredom. This finding is especially interesting, since it might be expected that viewers who watch TV due to boredom would be more apt to change content. Instead, they appear likely to remain with the content, but change the mode of viewing. Additionally, there was a relationship (although a weak one) between time spent viewing and changing devices, and a relationship between binge watching and device changing. Both of those findings, coupled with the finding about boredom, suggest a reason for viewing, as well as a tendency for some people to continue viewing longer and on different devices.

Another important issue in the present study was to determine if there was a relationship between binge viewing and personal connections to mobile devices. Viewer analyses in this study found no relationship between binge viewing “last week” and mobile device affinity. At the same time, there was a small relationship between the highest number of TV episodes respondents binge watched and their affinity toward mobile devices. There was also a small relationship between the typical number of episodes the viewers binge watched and mobile

device affinity. Despite the user's moderately high level of affinity toward the device itself, that connection had only limited influence on the extent to which the individual binge viewed TV programs.

This study also examined whether there was a connection between binge viewing on mobile devices and television viewing motives. Results showed a significant, although minimal, relationship between binge watching on mobile technologies, as well as between binge viewing and both instrumental and ritualistic viewing motives. Binge viewing for ritualistic motives had a slightly higher correlation than for instrumental motives. As Rubin (1993) noted, media use relates to the individual's purpose when selecting a particular medium. Despite the small differences in relationships between the two motives, this finding suggests that individuals who view TV ritualistically are slightly more apt to binge watch on mobile devices than instrumental viewers.

Finally, this study considered the possible relationships between psychological factors in binge viewing and television viewing habits. Psychological factors included issues such as binge viewing interfering with other activities, feelings of guilt and disgust after binge watching, depression and embarrassment. The analysis showed that, while negative attitudes were moderately related to affinity toward binge viewing, negative attitudes were strongly related to watching too much television. Indeed, descriptive statistics show that some respondents spent as much as eight hours a day watching TV on a traditional set, up to 16 hours a day watching on a tablet, and up to six hours a day on a smartphone. This suggests that psychological factors are not primarily related to the notion of watching multiple episodes in one sitting (bingeing), but rather to the activity of simply spending a lot of time watching television. On average, there were relatively low negative attitudes toward binge viewing. These findings support a recent

marketing study that showed the negativity of binge watching had declined (Friedman, 2015).

One reason might be that binge viewing has become a regular form of watching television (Loechner, 2015; Robins, 2015), especially for Millennials (Friedman, 2014b). Perhaps there is less stigma associated with binge viewing as that practice becomes accepted and normative.

Additionally, the present study found that ritualistic motives for viewing television on a mobile device were moderately related to psychological factors. At the same time, there was no significant relationship between instrumental viewing motives and psychological factors. Individuals who habitually use mobile devices for binge watching television were more likely to exhibit the negative psychological effects of viewing when compared with individuals who viewed for a specific purpose. This suggests that ritualistic viewers tend more to get locked into the practice of viewing and do so despite the recognized effects of that activity.

A hierarchical regression revealed that affinity toward television shows served as the lone predictor of psychological effects. Contrary to what might be expected, purely the frequency of watching multiple episodes of TV shows back-to-back was not an issue in these types of viewing habits. Instead, individuals were more likely to report psychological effects due to a strong desire for particular TV shows and dependency on those programs. Perhaps the effects noted here are similar to viewing compulsions noted by Vervaet (2004) or dependence as suggested in research by Bingo and Devasagayam (2014). Additionally, the present study showed that gender was not an issue in psychological effects after affinity entered the equation. Males and females were equally likely to be affected by affinity toward the TV programs they binge watched.

Some limitations should be noted regarding this study. One is the relationship between binge television viewing on mobile devices. This study dealt primarily with the extent of binge viewing, and connections between psychological factors and TV viewing motivations. In order to

retain a specific focus on that subject matter, other issues associated with various forms of bingeing were not measured. Future research should examine whether there is a connection between people who participate in other forms of bingeing (e.g., eating or drinking) and television viewing habits. This study also examined the relationship between mobile device affinity and binge viewing. Additional research is warranted regarding binge habits overall with affinity toward technology and media.

Another limitation of this study is the method by which participants were invited to participate in the study. Using an online questionnaire is a challenge, especially when it comes to locating a certain subset of the population that is engaged in specific media activities. For the present study, the goal was to assess the uses and gratifications of individuals who used mobile devices to watch television programs. However, invitations to complete the questionnaire were distributed by various means that resulted in a diversity of respondents. The sample in this study ranged in age from 18 to 73, with a mean age of just under 31. Given market research that indicates millennials are a large portion of binge viewers (Friedman, 2014b), gathering data just on that age group might have produced different results in this analysis. Additional research should attempt to focus specifically on that demographic, since those individuals also comprise the highest percentage of smartphone ownership (Anderson, 2015).

This study also provides the foundation for future research dealing with psychological effects of binge watching on mobile devices. For example, researchers could replicate Mellwraith's (1998) study of TV viewers by assessing physiological responses to binge TV viewing on mobile devices. Also, studies should use multiple methodologies, including qualitative (e.g., Bingo and Devasagayam, 2014) to determine if there are differences between binge viewing on TV sets and mobile devices. Psychological factors in the present study focused

on negative effects of binge viewing, but future research should also include perceived positive effects of watching television in this fashion (e.g., Spangler, 2013; Rutledge, 2014; Sung, Kang, and Lee, 2015).

Endnotes:

¹The survey used wording as follows: “Regarding your reasons for using a mobile device to watch TV programs, how much do you agree with the following?”

(12 ritual): It’s a habit, just something I do; It gives me something to do to occupy my time; I just like to use it; When I have nothing better to do; Just because it’s there; It passes time away, particularly when I’m bored; So I can get away from what I’m doing; So I won’t have to be alone; When there is no one else to talk to or be with; So I can get away from the rest of the family or others; It makes me feel less lonely; So I can forget about school, work or other things.

(12 instrumental): It is enjoyable; So I can talk with other people about what I have done on a smartphone; It amuses me; It entertains me; It’s thrilling; It’s exciting; So I can learn about things I haven’t done before; It helps me learn things about myself and others; It peeps me up; It helps me learn things about myself and others; So I can learn about what could happen to me; So I can be like my friends and family who have a smartphone.

(3 relaxation): It relaxes me; It’s a pleasant rest; It allows me to unwind.

References

- Abbruzzese, J. (2014). If you start reading this story on a phone, you'll probably finish on a laptop. *Mashable*, 6 March. Retrieved from mashable.com/2014/03/06/facebook-device-switch-study/#3YGNfb6MokqO.
- Anderson, M. (2015). Technology device ownership: 2015. *Pew Research Center*, 29 October. Retrieved from www.pewinternet.org/2015/10/29/technology-device-ownership-2015/.
- Ascharya, K. (2012). Media mind: Binge viewing and the shifting TV landscape. *2machines*, 10 October. Retrieved from 2machines.com/164888/
- Authors (2015).
- Barr, A. (2014). Tablets changing content consumption habits. *MediaPost Marketing Daily*, 26 March. Retrieved from www.mediapost.com/publications/article/222284/tablets-changing-content-consumption-habits.html
- Bingo, C., & Devasagayam, R. (2014). Media bingeing: A qualitative study of psychological influences. In the Proceedings of the Marketing Management Association Spring Conference, March 2014. Chicago, IL.
- Bray, H. (2014). Amid new technologies, TV is at a turning point. *Boston Globe*, 28 April. Retrieved from www.bostonglobe.com/business/2014/04/27/video-streaming-turning-point/VA08aXIZhUAYwV4hBjgNNO/story.html.
- Burmeister, J.M., & Carels, R.A. (2014). Television use and binge eating in adults seeking weight loss treatment. *Eating Behaviors*, 15(1), 83-86.
- Bray, H. (2014). Amid new technologies, TV is at a turning point. *Boston Globe*, 28 April. Business. Retrieved from www.bostonglobe.com.

Castillo, M. (2015). Will binge watching kill the 30 second commercial? *CNBC*, 29 May.

Retrieved from finance.yahoo.com/news/binge-watching-kill-30-second-164336000.html.

Chatila, R. (2013). Television industry must adapt to binge viewing. *Arizona Daily Wildcat*, 6 February. Retrieved from www.wildcat.arizona.edu/article/2013/02/television-industry-must-adapt-to-binge-viewing.

Conlin, L., & Billings, A. (2015). Binge-watching and bad guys: Character identification, antiheroes, narrative engagement, and fantasy empathy in fictional narratives. Paper presented at the annual convention of the National Communication Association, November 2015, Las Vegas, NV.

eMarketer (2014). Mobile continues to steal share of US adults' daily time spent with media. 22 April 2014. Retrieved from www.emarketer.com/Article/Mobile-Continues-Steal-Share-of-US-Adults-Daily-Time-Spent-with-Media/1010782.

Ferguson, D. A., & Perse, E. M. (2000). The World Wide Web as a functional alternative to television. *Journal of Broadcasting & Electronic Media*, 44(2), 155-174.

Friedman, W. (2014a). Screen time: TV time-shifted viewing rises cross-platform. *Media Daily News*, 5 March. Retrieved from www.mediapost.com/publications/article/220841/screen-time-tv-time-shifted-viewing-rises-cross-p.html.

Friedman, W. (2014b). Demo split on TV viewing: Millennials favor streaming sites, VOD. *Media Daily News*, 20 February. Retrieved from www.mediapost.com/publications/article/219942/demos-split-on-tv-viewing-millennials-favor-strea.html.

- Friedman W (2015). TV binging [sic] on the rise. *Media Daily News*, 30 June. Retrieved from www.mediapost.com/publications/article/253063/tv-binging-on-the-rise.html .
- Goldsmith TD (2013). Bulimia: Binging and purging. *Psych Central*, 30 January. Retrieved from psychcentral.com/lib/2006/bulimia-binging-and-purging.
- Göttlich, U., Heinz, L., & Herbers, M. R. (2015). Changes in television audiences' practices: Commentary and co-orientation in the age of second screens. Unpublished manuscript, July 2015. Retrieved from www.researchgate.net/profile/Martin_Herbers/publication/280223185_Changes_in_Television_Audiences'_Practices_Commentary_and_Co-Orientation_in_the_Age_of_Second_Screens/links/55adf5ec08ae98e661a44e44.pdf.
- Graybeal, G. (2014, April). Too much television at once? A study of binge viewing motivations among college students. In Annual conference of the Broadcast Education Association, April 2014, Las Vegas, NV.
- Henke, L. L., & Donohue, T. R. (1989). Functional displacement of traditional TV viewing by VCR owners. *Journal of Advertising Research*, 29(2), 18-23.
- Horvath, C. W. (2004). Measuring television addiction. *Journal of Broadcasting & Electronic Media*, 48, 378–398.
- Jago, R., Thompson, J. L., Sebire, S. J., Wood, L., Pool, L., Zahra, J., & Lawlor, D. A. (2014). Cross-sectional associations between the screen-time of parents and young children: Differences by parent and child gender and day of the week. *International Journal of Behavioral Nutrition and Physical Activity*, 11(1), 54-61.

Jurgensen, J. (2012). Binge viewing: TV's lost weekends. *Wall Street Journal*, 13 July.

Retrieved from

www.wsj.com/articles/SB10001424052702303740704577521300806686174

Karmakar, M. (2015). Viewing patterns and addiction to television among adults who self-identify as binge-watchers. Paper presented at the 143rd annual meeting and exposition of the American Public Health Association, November. Retrieved from

apha.confex.com/apha/143am/webprogram/Paper335049.html.

Katz, E., Blumler, J. G., & Gurevitch, M. (1974). Utilization of mass communication by the individual. In Blumler, J. G., & Katz, E. (Eds.), *The uses of mass communication: Current perspectives on gratifications research*. Beverly Hills, CA: Sage Publications, pp. 19-32.

Kaye, B. K., & Johnson, T. J. (2003). From here to obscurity?: Media substitution theory and traditional media in an on-line world. *Journal of the American Society for Information Science and Technology*, 54(3), 260-273.

Kolotkin, R. L., Revis, E. S., Kirkley, B. G., & Janick, L. (1987). Binge eating in obesity: Associated MMPI characteristics. *Journal of Consulting and Clinical Psychology*, 55(6), 872-876.

Kruger, J. S. (2015). Looking into screen time: Mental health and binge watching. Paper presented at the 143rd annual conference and exposition of the American Public Health Association, November 2015. Retrieved from

<https://apha.confex.com/apha/143am/webprogram/Paper335164.html>.

- Lafayette, J. (2014). Nielsen cross platform report looks at phones. *Broadcasting & Cable*, 5 March. Retrieved from www.broadcastingcable.com/blog/currency/nielsen-cross-platform-report-looks-phones/129595.
- Levy, M. R., & Windahl, S. (1984). Audience activity and gratifications: A conceptual clarification and exploration. *Communication Research*, 1(1), 51-78.
- Lin, C. A. (2004). Webcasting adoption: Technology fluidity, user innovativeness, and media substitution. *Journal of Broadcasting & Electronic Media*, 48(3), 446-465. doi: 10.1207/s15506878jobem4803_6
- Linville, T. (2013). Sites like Netflix often lead to binge watching of TV programs. *The Crimson White*, 3 March. Retrieved from cw.ua.edu/article/2013/03/sites-like-netflix-often-lead-to-binge-watching-of-tv-programs.
- Lloyd, A. (2013). Binge viewing: What is it? *Neon Tommy*, 13 February. Retrieved from www.neontommy.com/news/2013/02/binge-viewing-what-it
- Loechner, J. (2015). Binge viewing of TV programs a widespread behavior. Research Brief. *The Center for Media Research*, 6 August. Retrieved from www.mediapost.com/publications/article/255280/binge-viewing-of-tv-programs-a-widespread-behavior.html.
- Lukas, B. A., Whitwell, G. J., & Heide, J. B. (2013). Why do customers get more than they need? How organizational culture shapes product capability decisions. *Journal of Marketing*, 77(1), 1-12.
- Mandese, J. (2014). With TV poised to join video universe, viewer attention maxes out: YouTube share now about 2%. *Media Daily News*, 1 May. Retrieved from

www.mediapost.com/publications/article/224886/with-tv-poised-to-join-video-universe-viewer-atte.html.

McCracken, G. (2013). From *Arrested Development* to *Dr. Who*, binge watching is changing our culture. *Wired*, 23 May. Retrieved from www.wired.com/2013/05/beyond-arrested-development-how-binge-watching-is-changing-our-narrative-culture/.

McCreery, S. P., & Krugman, D. M. (2015). TV and the iPad: How the tablet is redefining the way we watch. *Journal of Broadcasting & Electronic Media*, 59(4), 620-639.

McIlwraith, R. D. (1998). "I'm addicted to television": The personality, imagination, and TV watching patterns of self-identified TV addicts. *Journal of Broadcasting & Electronic Media*, 42, 371-386.

McNamara, M. (2012). The critic's notebook: The side effects of binge television. *LA Times*, 15 January. Retrieved from articles.latimes.com/2012/jan/15/entertainment/la-ca-netflix-essay-20120115.

Newell, J., Pilotta, J. J., & Thomas, J. C. (2008). Mass media displacement and saturation. *International Journal on Media Management*, 10(4), 131-138.

Oxford Dictionary (2013). Oxford Dictionaries word of the year: Selfie. November. Retrieved from blog.oxforddictionaries.com/press-releases/oxford-dictionaries-word-of-the-year-2013/

Pew Research Center (2014). Millennials in adulthood: Detached from institutions, networked with friends. *Pew Research Center*, March. Retrieved from www.pewsocialtrends.org/files/2014/03/2014-03-07_generations-report-version-for-web.pdf.

- Perse, E. M., & Ferguson, D. A. (1993). The impact of the newer television technologies in television satisfaction. *Journalism Quarterly*, 70(4), 843-853.
- PR Newswire (2013). Netflix declares binge watching is the new normal. 13 December. Retrieved from www.prnewswire.com/news-releases/netflix-declares-binge-watching-is-the-new-normal-235713431.html.
- Research Brief (2014). Digital video supplements traditional TV content. *Center for Media Research*, 21 March. Retrieved from www.mediapost.com/publications/article/221518/digital-video-supplements-traditional-tv-content.html.
- Riccio, A. (2013). Binge-watching makes TV better. CNN.com, 6 February. Retrieved from www.cnn.com/2013/02/06/opinion/riccio-binge-tv-watching.
- Robins, J. M. (2015). Study shows binge-ing is the new normal. *Media Post*, 15 July. Retrieved from www.mediapost.com/publications/article/254041/study-shows-binge-ing-is-the-new-normal.html.
- Rollin, K. (2013). Prevalence of TV binge-watching may prove harmful. *Daily Nebraskan*, 11 February. Retrieved from www.dailynebraskan.com/news/article_b90c0ad4-740d-11e2-85d0-0019bb30f31a.html.
- Rosenstein, A. W., & Grant, A. E. (1997). Reconceptualizing the role of habit: A new model of television audience activity. *Journal of Broadcasting & Electronic Media*, 41(3), 324-344.
- Rubin, A. M. (1983). Television uses and gratifications: The interactions of viewing patterns and motivations. *Journal of Broadcasting*, 27(1), 37-51.

- Rubin, A. M. (1984). Ritualized and instrumental television viewing. *Journal of Communication*, 34(3), 67-77.
- Rubin, A. M. (1993). Audience activity and media use. *Communication Monographs*, 6, 98-105.
- Rubin, A.M., & Windahl S (1986). The uses and dependency model of mass communication. *Critical Studies in Mass Communication*, 3, 184-199.
- Ruggiero, T. E. (2000). Uses and gratifications theory in the 21st century. *Mass Communication and Society*, 3(1), 3-37.
- Rutledge, P. (2014). Binge watching redefines TV watching. *Psychology Today*, 12 April. Retrieved from www.psychologytoday.com/blog/positively-media/201404/binge-viewing-redefines-tv-watching.
- Rutsch, P. (2015). Does binge-watching make us depressed? Good question. *NPR*, 4 February. Retrieved from www.npr.org/sections/health-shots/2015/02/04/383527370/does-binge-watching-make-us-depressed-good-question.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081.
- Smith, C. (2014). The Netflix effect: How binge watching is changing television. *Techradar*, 16 January. Retrieved from www.techradar.com/us/news/internet/the-netflix-effect-how-binge-watching-is-changing-television-1215808.
- Spangler, T. (2013). Poll of online TV watchers finds 61% watch 2-3 episodes in one sitting at least every few weeks. *Variety*, 13 December. Retrieved from variety.com/2013/digital/news/netflix-survey-binge-watching-is-not-weird-or-unusual-1200952292/.

- Stelter, B. (2013a). Nielsen will add mobile viewership to ratings. *The New York Times*, 20 September. Retrieved from www.nytimes.com/2013/09/20/business/media/nielsen-will-add-mobile-viewership-to-ratings.html?_r=0.
- Stelter, B. (2013b). Netflix to deliver All 13 episodes of House of Cards on one day. *The New York Times*, 31 January. Retrieved from www.nytimes.com/2013/02/01/business/media/netflix-to-deliver-all-13-episodes-of-house-of-cards-on-one-day.html?pagewanted=all.
- Sundar, S. S., & Limperos, A. M. (2013). Uses and grats 2.0: New gratifications for new media. *Journal of Broadcasting & Electronic Media*, 57(4), 504-525.
- Sung, Y. H., Kang, E., & Lee, W. N. (2015). A bad habit for your health? An exploration of psychological factors for binge-watching behavior. In 65th Annual Conference of the International Communication Association. San Juan, Puerto Rico.
- Sussman, S., & Black, D. S. (2008). Substitute addiction: A concern for researchers and practitioners. *Journal of Drug Education*, 38(2), 167-180.
- Sussman, S., & Moran, M. B. (2013). Hidden addiction: Television. *Journal of Behavioral Addictions*, 2(3), 125-132.
- Sussman, S., & Sussman, A. N. (2011). Considering the definition of addiction. *International Journal of Environmental Research and Public Health*, 8, 4025–4038. [PMC free article]
- Veerman, J. L., Healy, G. N., Cobiac, L. J., Vos, T., Winkler, E. A. H., Owen, N., & Dunstan D. W. (2012). Television viewing time and reduced life expectancy: A life table analysis. *British Journal of Sports Medicine*, 46, 927–930.
- Vervaet, M. (2004). Personality-related characteristics in restricting versus bingeing and purging eating disordered patients. *Comprehensive Psychiatry*, 45(1), 37-43.

Viacom (2014). Multi-screen viewership boosts TV fandom and loyalty, according to Viacom's

"Getting With the Program: TV's Funnels, Paths and Hurdles." [Press release], 11

September. Retrieved from ir.viacom.com/releasedetail.cfm?ReleaseID=870375.

Walsh, M. (2014). Tablet demand cools, phablets eat into sales. *Mobile Marketing Daily*, 2 May.

Retrieved from www.mediapost.com/publications/article/225058/tablet-demand-cools-phablets-eat-into-sales.html.

Ward, B. (2014). Binge TV viewing is a popular indulgence, for better or worse. *Star Tribune*, 5

January. Retrieved from www.startribune.com/lifestyle/238655421.html.

Willens, M. (2013). Face it: Binge-viewing is the new date night. *The Huffington Post*, 2 March.

Retrieved from www.huffingtonpost.com/michele-willens/binge-watching-downton-abbey-breaking-bad-house-of-cards_b_2764830.html.

Zimmer, B. (2013). Keeping a watch on "binge watching." *Visual Thesaurus*, 9 August.

Retrieved from <https://www.visualthesaurus.com/cm/wordroutes/keeping-a-watch-on-binge-watching/>.