Binge watching and college students: motivations and outcomes

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Abstract

Purpose – The purpose of the paper is to explore various motivations that influence college students to spend more time binge watching and the subsequent gratifications. Video streaming websites such as Netflix and Amazon Video have changed the viewing habits of consumers. Viewers have more control and can enjoy on-demand content as per their convenience. This has resulted in viewers watching multiple episodes of television shows in a compressed time frame - a phenomenon termed as binge watching. College students engage in binge watching because of the various gratifications that it promises. This paper investigates the various triggers and consequences of binge watching.

Design/methodology/approach - Data were collected through a mixed method approach. The first stage involved qualitative interviews and focused group discussions with college students to understand the phenomenon of binge watching. The second stage involved administering a questionnaire to address our research question.

Findings - Findings indicate that social interaction, escape from reality, easy accessibility to TV content and advertising motivate college students to spend more time binge watching. If students are negatively gratified after binge watching, then they intend to spend more time doing it.

Originality/value - The findings have important implications on the overall wellbeing of college students and strategic implications for video streaming companies.

Keywords Addiction, Binge watching, College students, Uses and gratification, Young adults Paper type Research paper

Introduction

Media consumption has changed dramatically in recent years. Viewers have been moving away from consuming traditional broadcast channels towards online video consumption (Netflix, 2013; Schweidel and Moe, 2016). In the traditional format, viewers enjoyed shows according to the schedule and sequence in which the networks broadcast them. But online consumption medium has offered more control to viewers, as now, they can determine their own viewing schedule through digital video recorders or on-demand programming (Littleton, 2014). Because of these trends, new patterns of media consumption have emerged.

A recent phenomenon that has been observed among TV viewers is "binge watching". The definition of binge watching is still evolving. Oxford Dictionary (2013) defines binge viewing as "to watch multiple episodes of a television program in rapid succession, typically by means of DVDs or digital streaming,". Netflix and Harris Interactive offer another definition of binge watching as "watching between 2-6 episodes of the same TV show in one sitting" (Netflix, 2013). The Digital Democracy Survey offers an alternative definition as "watching three or more episodes of a TV series in one sitting". Nielsen's (2013) study finds that 88 per cent of Netflix users and 70 per cent of Hulu Plus users reported watching at least three episodes of the same program in one day. Schweidel and Moe (2016) offer a somewhat broad definition of binge watching as the consumption of multiple episodes of a television series in a short period of time. They propose that binge watching is characterized by two common elements: first, there is a heavy rate of consumption, which may occur within a

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Received 5 July 2017 Revised 20 August 2017 Accepted 18 September 2017 single session or across multiple sessions within a short period of time. Second, viewers consume multiple episodes of the same series.

While many studies define binge watching in terms of the number of episodes watched, a definition in terms of exact amount of time spent to be branded as binge watching is yet to evolve. Based on the above definitions, we propose that the "heavy consumption" can be attributed to watching a minimum of 2-3 episodes of the same series, or at least one hour of the same TV series in one sitting. For example, watching at least three episodes of "Big Bang Theory" in succession in one sitting will attribute to binge watching, as each episode on an average is 22 minutes. But, watching at least two episodes of "Orange is The New Black" in one session will amount to binge watching, as each episode on an average is 50-55 minutes. Repeating such viewing sessions in quick succession will obviously be attributed to binge watching behavior (e.g. completely watching one season of "Orange is The New Black" over the weekend).

The phenomenon of binge watching has certain advantages and drawbacks for viewers. Some studies contend that binge watching can be detrimental to the overall wellbeing of a person, as it tends to be addictive (Chaudhary, 2014). This may result in instances of isolation, loneliness and lethargy, which can result in depression and obesity. Others contend that binge watching is a form of entertainment which results in gratifying the consumer's needs and may result in relaxation and an overall positive disposition toward life (Rubin, 2009).

Binge watching is a recent concept (Schweidel and Moe, 2016). Although its growing popularity and frequency of use have been the subject of several media company studies (e.g. Netflix, 2013; Nielsen, 2013), there is very little academic research on the subject. Much remains to be explored about the binge-watching phenomenon in terms of motivations, viewing behavior and the resulting outcomes. This is especially true for college students who form a significant portion of the consumers engaging in binge watching (Chaudhary, 2014). It's been found that nine of ten college students use Netflix on a regular basis, and binge-watch television shows (Solis, 2014).

This study makes a contribution by investigating the phenomenon of binge watching among college students. The main purpose of the study is to explore the pre-binge motivations and post-binge gratifications that influence college students to spend more time binge watching. Therefore, the key research question is as follows:

RQ1. What are the motivations and gratifications that influence college students to spend more time binge watching?

We discuss the theoretical background of binge watching phenomenon and hypothesize the relationships in the subsequent section, followed by the method and results, discussion, conclusion, limitations and future research direction.

Theoretical background

Binge watching: an addiction?

The psychological and medical literature considers binge behavior an addiction (e.g. Gold et al., 2003). Psychological researchers define it as "excessive amount in a short time", such as binge eating or binge drinking (Heatherton and Baumeister, 1991; Leon et al., 2007).

Kubey and Csikszentmihalyi (2002) examine the addictive nature of television and compare it to substance dependence. Their electroencephalogram studies of individuals watching television found that people were relaxed and passive and exhibited little mental stimulation during the process. The "relaxed" feeling gave way to feeling of stress when the viewing session ended. To avoid this transition from a "relaxed" feeling to a "stressed" state of mind, viewers exhibited a tendency to continue the viewing session to maintain their relaxed state of mind.

In the online environment, this relates to the concept of "flow" (Hoffman and Novak, 1996) – "the holistic sensation that people feel when they act with total involvement" (Csikszentmihalyi, 1977, p. 36). Flow involves a merging of actions and awareness, with concentration so intense that there is little attention left over to consider anything else (Hoffman and Novak, 1996). For an individual in a state of "flow", he achieves an immersive experience characterized by focused concentration, disappearance of self-consciousness, distorted sense of time, intrinsic enjoyment and a state of mind that is extremely gratifying (Hoffman and Novak, 1996).

Researchers have linked experiencing flow to addictive behaviors. In the context of video games, Chou and Ting (2003) find that individuals who experience flow are more likely to become addicted. They also find evidence to suggest that experiencing flow is an intermediary step through which repetitive behaviors contribute to addictive behaviors.

Individuals who exhibit addictive behaviors attempt to maximize their utility. The theory of rational addiction posits that consumers are rational individuals who recognize the addictive nature of their choices but elect to make them because the gains from the activity exceed the costs through future addiction (Becker and Murphy, 1988). For example, individuals alternate between periods of overeating and dieting to enjoy consuming food while also maintaining their weight. From this perspective, binging is considered as a cyclical behavior. For example, we may find that users take longer to initiate a new viewing session after a binge experience because they may derive more utility from other activities.

Binge watching: a restorative experience?

While some studies suggest binge watching as addictive and detrimental to the students' overall wellbeing, others see it as a restorative experience (e.g. Pang, 2014). These experiences capture the attention of the viewer, providing a sense of taking him outside of his normal world to a space that is rich and fully realized, complex yet compatible with one's own ability to understand the world. Pang (2014) suggests that binge watching has all the features of a restorative experience: often the programs have complicated plots that play out over the course of the season, and strong characters that appear in a fascinating world very unlike our own.

According to the uses and gratification (U&G) framework, consumers of media have certain goals and needs and are continually seeking to satisfy them through various mass media activities (Elliott and Quattlebaum, 1979). The theory begins with three assumptions: first, it assumes that audience are not passive but actively seek out media to gratify certain needs; second, audience are cognizant enough of their own desires to report them after the fact, and that those self-reports are reliable; third, media compete with each other for sources of need satisfaction.

The U&G framework is broadly focused on the social and psychological origins of needs, which generate expectations of the media, resulting in need gratifications and other consequences, which may be unexpected or unintended (Katz et al., 1973). The framework suggests that audiences tend to look for five basic gratifications: to be informed or educated, to identify with characters in the media environment, to be entertained, to enhance social interactions and to escape from the stresses of everyday life (McQuail, 2010). Greenberg (1974) identified seven motivations for television viewing: habit, relaxation, companionship, passing time, learning, arousal and escape.

Internet differs from traditional media because of its interactivity (more control), demassification (more choice) and asynchroneity (more authority over when to consume) (Ruggiero, 2000). The U&G framework has been modified to fit the internet context, by emphasizing differences between gratifications sought (GS) and gratifications obtained (GO) (LaRose *et al.*, 2001). A user may go online for one gratification but end up with another, as new gratifications can be triggered by features the user experience during its usage (Sundar and Limperos, 2013). Katz *et al.* (1973) outlined the difference between the

two in which GS is the "expectation about content formed in advance of exposure," and GO is the "satisfaction subsequently secured from consumption of it."

As internet is the main platform for binge watching, Stafford et al. (2004) segmented audiences into lone wolves and social animals based on their GS. Lone wolves binge watch to assuage loneliness and gain companionship, while social animals binge watch to enjoy the program with others, either in person or digitally (Pittman and Tefertiller, 2015). Regardless of whether they watch alone or with others, most people feel positive about binge watching (Shannon-Missal, 2013). Feeney (2014) attributed this feeling to people using binge watching as a reward, suggesting that after a hard work week, they look forward to and plan in advance their binge-watching experience.

Binge watching: marketing influence?

Studies indicate that besides the social and cognitive elements, viewers binge watch because they are influenced by marketing and publicity - advertisements across various platforms, attractive pricing deals and recommendation and ratings in various forums and media platforms (Schweidel and Moe, 2016).

Many online video providers support their services with advertising revenue (Schweidel and Moe, 2016). But, advertisements shown during a viewing session can be seen as an interruption to the experience. This effect is similar to advertising interruptions during an online browsing session. Previous studies have shown that online browsers frequently enter a state of flow (Hoffman and Novak, 1996). Advertisements shown during these sessions interrupt the flow state and can adversely affect the browsing experience. Along these lines, Moe (2006) finds that pop-up promotions that interrupt an online shopping session shorten the duration of the session and encourage users to exit the site. By the same logic, it can be expected that advertisements shown during a binge viewing session might interrupt the viewing experience and, consequently, contribute to an increase in viewers' tendencies to end the session. However, strategically positioned advertisements based on the browsing history of the viewer may motivate viewers to binge watch.

Viewers often decide on a particular TV show based on online reviews and recommendations. Catchy headlines such as "10 shows to binge watch this weekend" and categorization of TV shows by Amazon Video such as "binge worthy TV shows' influence viewers to select a certain TV show for binge watching. Several internet sites and articles cultivate the phenomenon of binge watching by informing their readers how to improve the overall experience of binge watching, going from "binge-watching survival kits" to information about the time it takes to finish all episodes of a series to better plan binge-watching sessions (Hernandez, 2014; Glennon, 2014). A viewer seeking to gain gratification by spending his weekend binge watching resorts to such resources to gain maximum utility of the TV show that he decides to binge on.

Another important promotion tactic used by TV streaming platforms such as Netflix and Amazon video is free unlimited viewing of TV content for a certain period of time. While Netflix offers free viewing for a month, Amazon student offers free viewing of unlimited content for six months. Discounts for certain "packages" of viewership based on the duration of subscription is another form of such promotion based on pricing. A longer subscription results in a lower subscription fee as against a shorter one. Such pricing strategies can motivate viewers to subscribe to any of the TV streaming websites.

There exist few academic studies that examine the phenomenon of binge watching of online media. For example, Stafford et al. (2004) adopt the U&G approach to derive dimensions of consumer internet use and usage gratifications among customers of internet, while Papacharissi and Mendelson (2007) and Barton (2013) explore U&G associated with reality television. In terms of binge watching of online media, Wheeler (2015) examine only the emotional motivations of college students, while Winland (2015) explores the activities that are replaced by binge watching. This paper adopts a holistic perspective and investigates the phenomena of binge watching among college students. It explores a variety of motivations - positive, negative and marketing related across multiple video streaming platforms. It goes a step further and assesses the scenario where students have a high probability of getting addicted to binge watching.

Hypotheses development

In the following section, we propose specific factors that motivate college students to spend more time binge watching and post-binge gratifications that tempts them to continue with their binge-watching behavior.

Motivations for binge watching

Summarizing the literature on binge watching and marketing, this study focuses on six socio-cognitive motivations (i.e. social engagement, entertainment, escape reality, stress relief, boredom and seclusion) and three marketing-related reasons for spending more time binge watching (i.e. advertising effect, attractive pricing and easy access). We believe that understanding the binge-watching phenomenon among college students is important because technology usage has been prolific among millennials. According to Pew research study conducted in 2010, more than nine in ten undergraduate (95 per cent) and graduate students (93 per cent) use internet - well above the national adult average of 66 per cent. According to a study conducted by Nielsen in 2013, 63 per cent of the population that streams content online does not have children, meaning the younger population watches Netflix the most. Consumers aged 18-29 are most likely to binge watch. Research indicates that college students make up a sizable percentage of Netflix subscribers - 9 of 10 college students use Netflix on a regular basis and binge-watch television shows.

Keeping in line with the objective of the study, the proposed hypotheses capture the relationship between the six socio-cognitive and three marketing-related reasons with that of intention to spend more time binge watching. In the theoretical framework section, we discuss multiple gratifications that students seek when they intend to binge watch because they are addicted to binge watching or they do it as a restorative experience. Relying on works of authors on addiction literature such as Bailey and Baillie (2013), Cooper (1994), Cooper et al. (1995), Cox et al. (2006), Farber et al. (1980) and Lang et al. (2012), the six socio-cognitive reasons for binge watching are classified into positive enhancement - social engagement and enjoyment and negative enhancement or coping escape from reality and boredom and finding seclusion and solace among fictitious characters in TV shows. Positive motivations capture positive enhancements in mood and status (Paswan et al., 2015). Positive gratifications sought are in line with binge watching as a restorative experience. For example, college students may be motivated to binge watch to feel included in their social groups by contributing to social conversation. Some may want to unwind after a long day of school and seek entertainment to fill their time.

Negative motivations capture an individual's effort to deal with negative aspects of life such as loneliness. This concept is in line with the "binge watching as addiction" literature. It's supported by the theory of rational addiction as the students make a rational decision to binge watch because the gains from the activity exceed the costs through future addiction. For example, students may choose to escape the hard realities of academics and life by engaging in long periods of binge watching. The socio cognitive gratifications sought by college students and their intention to spend more time binge watching is reflected in the following hypotheses:

H1. College students' intention to spend more time binge watching is positively associated with (a) social engagement (b) enjoyment (c) stress relief (d) escape reality (e) seclusion and (f) boredom.

It's possible for college students to binge on TV shows because of the easy accessibility of such TV content. Students can now watch their favorite TV shows across different platforms such as television, computers, laptops, tablets and mobile phones. The mobility of such devices makes it easier for students to watch TV content anywhere, without getting constrained by space. Therefore, we can hypothesize that:

H2a. College students' intention to spend more time binge watching is positively associated with accessibility of TV shows across multiple media platforms.

Marketing strategies by various TV streaming platforms results in multiple expectations among college students about gratifications (positive/negative). For example, free subscription to students for unlimited content for six months, highlighting bingeable TV shows in their platform, good ratings and recommendations by various sites such as IMDb can trigger college students to engage in binge watching of that particular TV show. But, advertisements promoting TV shows during the duration of binge watching will be resented by the viewer, as it affects their "flow" of TV viewing experience. Therefore, we hypothesize the following:

- H2b. College students' intention to spend more time binge watching is negatively associated with the price charged by video streaming platforms.
- H2c. College students' intention to spend more time binge watching is positively associated with advertisements for specific TV shows.

Gratification obtained from binge watching

Addiction literature suggests that the type of gratification obtained from an addictive behavior will determine a person's intention to quit the addictive behavior or continue with it (e.g. Borsari and Carey, 2001; Carpenter and Hasin, 1998; Cooper et al., 1995; Kairouz et al., 2002; Kuntsche et al., 2005, 2006; Paswan et al., 2015). According to the U&G framework, experience during the media engagement can affect the gratification sought and result in a different form of experience - which can be positive or negative (LaRose et al., 2001; Sundar and Limperos, 2013). Positive gratifications post engaging in an event (e.g. alcohol consumption, binge eating and binge watching) include feelings associated with relaxation, fun and entertainment, and negative gratifications include feelings associated with guilt, anxiety and stress (Paswan et al., 2015).

During TV viewing, people feel relaxed and passive and exhibit little mental stimulation (Kubey and Csikszentmihalyi, 2002). The "relaxed" feeling gave way to feeling of stress when the viewing session ended. To avoid this transition from a "relaxed" feeling to a "stressed" state of mind, viewers exhibited a tendency to continue the viewing session to maintain their current state of mind. This argument can be extended to binge watching sessions as well. Students enter a state of "flow" during extended sessions of binge watching and may feel stressed or anxious when the binge session ends, specifically when they were doing it to cope with adverse realities or escape boredom. This is supported by the theory of rational addiction (Becker and Murphy, 1988), where students experiencing negative emotions post a binge-watching session would be compelled to spend more time doing it all over again because they reason that the gains achieved from binging (i.e. not facing reality) exceeds the cost of not binging (i.e. feeling stressed or anxious). Of course, as rational individuals, they realize that there exists a distinct possibility of getting addicted to binge watching.

Therefore, it can be hypothesized that:

H3a. College students experiencing negative gratification post-binge watching will want to spend more time doing it.

On the flip side, it may so happen that students who were positively gratified – i.e. felt relaxed and entertained, would also want to continue doing it to satisfy their need for enjoyment and relaxation. However, it's hard to predict whether they would want to continue with the binge-watching session immediately or would want to take a break and resume the process. Students continuing with the binge-watching process may continue doing so until the utility derived from the behavior is positive – i.e. the immediate benefits of enjoyment and relaxation outweigh the costs of utilizing the time in other activities (sports, academics, etc.). However, students wanting to take a break restrain themselves and pre-plan their next binge watch session carefully, so that they are able to repeat their previous experience and gain maximum utility from their binge-watching experience (Becker and Murphy, 1988). In this case, the student's utility is maximized, as his immediate benefits from not spending more time binging (e.g. studying) is greater than the costs associated with doing so (i.e. feeling anxious about wasted time).

Therefore, it can also be hypothesized that:

H3b. College students experiencing positive gratification post-binge watching will want to spend more time doing it.

Research method and results

The research process was undertaken in two stages. In the first stage, a qualitative study was undertaken to understand the binge-watching behavior among college students. Sixty students at a large university in southwestern part of the USA were asked about their behavior related to TV viewing across online platforms. The students were briefed about the working definition of binge viewing adopted from Netflix (2013) - "watching between 2 and 6 episodes of the same TV show in one sitting". Ninety-five per cent of the students who agreed to binge viewing were asked to provide five top-of-mind words that captured their motivations for binge watching and their feeling after a binge-watching session. Words with high frequencies for motivations of binge watching (of 280 words) included enjoy (25 per cent), conversation (5 per cent), de-stress (17 per cent), escape boredom (11 per cent), loneliness (4 per cent) and free access (12 per cent). Top words associated with feelings after binge watching (of 238 words) includes enjoy/fun (20 per cent), relax (18 per cent), anxious (28 per cent), guilty (7 per cent) and tired/sleepy (7 per cent). Finally, when asked about their future behavior associated with binge watching, many students (70 per cent) expressed their desire to do it for longer periods (35 per cent) and more frequently (27 per cent) and some pondered taking up new subscriptions (20 per cent).

Scale items for measuring the constructs were developed based on the word-association study from the first stage and existing literature. Scale items for measuring *social engagement*, *enjoyment* and *stress relief* were motivated by McQuail (2010). Items for measuring *escape*, *boredom* and *seclusion* were developed based on Greenberg (1974). *Accessibility* was based on Ruggiero (2000), and *attractive pricing* and *advertisement influence* were based on Schweidel and Moe, (2016). Items for *positive gratification* and *negative gratification* were developed from the word association exercise conducted in the first stage. Words such as "enjoyment" and "relaxation" were clubbed under positive gratification and "anxious", "guilty" and "tired" was clubbed under negative gratification. Similarly, the construct *intention to spend more time* was developed based on the qualitative research and included items related to "spend more time", "more frequently" and "new subscription".

The initial set of 50 items were used to collect data from 120 students. Pilot data was used to check for factor structure and purify the scale items. Multiple items were used to measure each construct so that their measurement properties could be evaluated on reliability and validity. Thirteen items with alpha scores less than 0.7 were removed (Nunnally, 1978). After removing 13 items, the final questionnaire included 37 items for 12 constructs. The questionnaire included perceptual measures that were rated on five-point Likert scales. This design is consistent with prior studies on TV viewing behavior and other related studies (e.g. McQuail, 2010). Each scale item was anchored at the numeral 1 with the verbal

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statement "strongly disagree" and at the numeral 5 with the verbal statement "strongly agree". This final questionnaire was used for collecting data from 240 students.

Response was collected through a convenience sample. These were students enrolled in a marketing class at the focal university. An anonymous self-administered questionnaire was used for data collection. Questionnaires were distributed to participants through an online survey. Students were given required briefings and guidelines for data collection. Students were requested to fill the survey in exchange of extra credit. Of 240 responses received, 11 were incomplete and were not used in the study. The final sample comprised of 229 students. Forty-four per cent of the students were males and 75 per cent of the students were less than 25 years old. Ninety-eight per cent were undergraduates and 92.5 per cent were full-time students. Demographic data of the respondents are depicted in Table I.

The final dataset was subjected to three principal component analysis. Specifically, the scale items for measuring motivations for binge watching were analyzed separately from the items used for measuring "gratification obtained" and that of "intention to spend more time" (Nunnally, 1978). The rotated factor structure, percentage of variance explained and the alpha scores for each factor appear in Tables II, III and IV. Almost all the alpha scores were greater than 0.7, the benchmark frequently specified for reliability (Nunnally, 1978). In five cases, the reliabilities were found to range between 0.62 and 0.69, which is quite close to the acceptable levels of reliability.

Table V presents the correlation among the 12 factors and their Cronbach's alpha. The correlation numbers indicate that there is low correlation among the factors and hence low multicollinearity. The values across the diagonals depict the Cronbach's alpha which represents internal consistency between items of the construct. High values of alpha indicate high internal consistency among items included in the factor.

Scale items for each construct were next averaged for each construct, and the factor scores were used to test the hypothesized relationships using two sets of multiple regression models. The first regression model (see Table VI) was used to test the relationships between "intention to spend more time" and the "gratifications sought for binge watching" (H1a-H1b; H2a-H2c), while the second regression model (see Table VII) used "intention to spend more time" as dependent variable and "gratification obtained" post-binge watching (H3a-H3b).

Variables	Options	(%)
Gender	Male	44
	Female	56
Age	<21 years	15.7
	21-25 years	58.9
	26-30 years	12.6
	>30 years	12.6
Household income	<\$20,000	37.1
	\$20,000-\$ 50,000	33.1
	\$ 51,000-\$100,000	15.7
	>\$100,000	13.9
Marital status	Married	14.8
	Not married	81.9
	Others	3.3
Children	Yes	11.5
	No	88.4
Student status	Graduate	2
	Undergraduate	98
Course status	Full time	92.5
	Part time	7.5

Table II Rotate	ed factor structure: motivations for spending r	nore tir	ne bin	ge wat	ching					
Factor label	Items	1	2	3	4	5	6	7	8	9
Social influence	Because it makes me feel part of a group Because I want to contribute to my group Because I don't want to feel excluded from my group	0.901 0.888 0.885								
	Because my friends suggest that I do it Because my friends expect me to Because my friends do it	0.867 0.857 0.750								
Enjoyment	Because I feel happy Because I feel relaxed Because it's fun Because I enjoy doing it		0.844 0.804 0.723 0.666							
Stress relief	Because it takes my mind off things Because it clears my head Because it helps me unwind Because It's a great stress reliever			0.815 0.779 0.719 0.699						
Escape	Because I forget about my worries Because I forget about my problems Because it transports me to another world				0.802 0.796 0.767					
Attractive price	I would not watch if I have to pay for it I don't like to pay and watch I watch only because I can freely access great TV content					0.888 0.855 0.693				
Accessibility	Because I have free access to great TV content Because I get the content for free						0.915 0.905			
Advertisement	I watch trailers before deciding on a TV show I pay close attention to advertisement for TV shows							0.825 0.668		
	I watch a TV show only after I have checked the ratings							0.625		
Quiet	Because I don't like spending time in a social circle								0.857	
Boredom	Because I don't like meeting people Because I feel bored								0.855	0.895
	Because I have nothing else to do % variance explained (76.8) Chronbach's alpha Mean	0.937 1.61	3.64	3.74	2.85	2.87	2.87	6 0.605 2.38	1.81	3.15
	SD	0.839	0.8	0.899	1.09	1.1	1.33	0.92	1.04	1.16

Table III Rotated factor structure: outcomes of spending more time binge watching								
Factors	Items	1	2					
Negative gratification	I felt bad because I missed socializing with my friends	0.834						
	I was tired and could not concentrate I felt guilty as I had wasted a lot of time	0.809 0.774						
Positive gratification	I felt relaxed I enjoyed it		0.928 0.928					
	% variance explained (73.93%) Chronbach's alpha	39.000 0.724	34.93 0.845					
	Mean SD	2.39 0.935	3.93 0.908					

Results from the first set of regression analysis (see Table VI) provide support for H1a, H1d, *H2a* and *H2c*. In other words, social engagement ($\beta = 0.396$), escape ($\beta = 0.118$), accessibility ($\beta = 0.092$) and advertising influence ($\beta = 0.132$) are positively associated with intention to spend more time binge watching.

Table IV Rotated factor structure: intention to spend more time binge watching						
Factor	Items	1				
More time	Maybe I should spend more time watching TV shows Maybe I should do this more often Maybe I will take up a new subscription % variance explained Chronbach's alpha Mean SD	0.929 0.915 0.824 79.33 0.868 2.100 0.920				

Correlations	socialeng	enjoy	stress_relief	escape	price	access	advertise	quiet	boredom	posgratif	neggratif	moretime
socialeng	0.937											
enjoy	0.026	0.829										
stress_relief	0.027	0.598	0.854									
escape	0.233	0.332	0.460	0.819								
orice	0.197	0.004	-0.072	0.010	0.819							
access	0.166	0.246	0.082	0.019	0.430	0.928						
advertise	0.371	0.133	0.029	0.208	0.144	0.127	0.605					
quiet	0.500	0.000	0.048	0.322	0.128	0.044	0.258	0.901				
ooredom	0.165	0.042	0.009	0.150	0.139	0.185	0.163	0.157	0.784			
oosgratif	-0.072	0.658	0.533	0.327	0.008	0.127	-0.039	-0.057	-0.001	0.845		
neggratif	0.382	0.013	-0.011	0.220	0.243	0.213	0.242	0.371	0.099	-0.074	0.724	
moretime	0.480	0.156	0.168	0.295	0.135	0.206	0.316	0.314	0.056	0.039	0.485	0.868

Table VI	Regression analysis – motivations to	o spend more tir	ne binge watchin	g
Model	Dependent variable: moretime	Beta	Significance	VIF
1 H1a H1b H1c H1d H1e H1e H2a H2a H2b H2c N	(Constant) social engagement enjoyment stress relief escape quiet boredom access price advertise	0.336 0.396 0.014 0.071 0.118 0.053 -0.064 0.092 -0.004 0.132	0.309 0.000 0.867 0.361 0.045 0.376 0.174 0.045 0.940 0.036	1.504 1.718 1.820 1.507 1.451 1.090 1.379 1.286 1.227
R ² Adjusted F	0.309	orted		

Results from the second set of regression analyses (see Table VII) provides support for H3b. Findings suggest that college students who experience negative gratification post-binge watching are more likely to spend more time doing it ($\beta = 0.487$).

Discussion

Findings indicate that opportunities for social engagement, escape from reality, easy accessibility of TV content and advertising motivate college students to spend more time binge watching. If students are negatively gratified after a session of binge watching, they intend to spend more time doing it.

Table VII Regression analysis – gratifications obtained and intention to binge watch							
Model	Dependent variable: moretime	Beta	Significance	VIF			
2 H3a H3b N R² Adjusted R² Note: Italics indica	(Constant) posgratif neggratif 229 0.241 0.235 ate that the hypotheses was supporte	0.626 0.077 0.487	0.029 0.197 <i>0.000</i>	1.006 1.006			

Students are motivated to spend more time binge watching to engage in conversations with their social circles and avoid feeling "excluded" or "left out". They imitate the behavior of their friends and peers and consider spending increased amount of time binge watching as acceptable behavior. They receive recommendations, pointers and feedback about TV shows, and this contributes to their binging behavior. The U&G framework proposes social engagement as a key factor contributing to TV viewing behavior (Katz et al., 1973). This finding supports the U&G framework and extends the finding to binge watching across video streaming websites as well (e.g. McQuail, 2010).

Another key factor that motivates students to binge watch is an opportunity to escape from reality – study and examination pressures, peer pressure, uncertainty associated with evaluations and future job prospects, etc. This finding supports existing literature associated with the U&G framework that people engage in heavy TV viewing behavior to escape reality (Greenberg, 1974; McQuail, 2010; Rubin, 1983). The dramatic nature of the program further motivates students to escape from reality and engage with a different world (Katz et al., 1973).

The more the students binge watch, the higher their propensity to spend more time subsequently doing so. This is because as students' dependence on binge watching as a form of escape increases, they gradually lack other, more adaptive ways of coping with these emotions - similar to alcohol addiction (Cooper, 1994). Also, similar to alcohol addiction, increasing reliance on binge watching to cope with reality leads to further deterioration in adaptive coping and to increased dependence to satisfy ones' gratifications (Cooper, 1994). This aspect is supported in our study where we find that, if students feel anxious or nervous after spending significant time in a binge-watching session, their tendency to continue to binge watch increases - leading the way for a vicious cycle. The student spends more time binge watching to escape reality and the more he ends up finding solace in binge behavior, the more he starts escaping reality, getting further addicted to binging on TV shows.

This finding also lends credence to the addiction literature associated with TV viewing behavior and the concept of "flow" (e.g. Hoffman and Novak, 1996). During binge viewing, students are invested psychologically in the process, with little attention left over to consider anything else (Hoffman and Novak, 1996). This feeling of "flow" has been linked to addictive behaviors (Chou and Ting, 2003). End of a binge viewing session interrupts this "flow" and leads to feeling of stress, anxiety, loneliness and emptiness. To avoid such feelings, students tend to come back again to view another season of their favorite TV show soon after - feeding the vicious cycle.

While binge watching in moderation is good for social engagement, engagement in binge watching to escape reality holds a real possibility for the students to get addicted to it. Such behavior is enabled by technological advances such as availability of TV shows across multiple media platforms (e.g. tablets, laptops, computers and television). Easy access to a variety of TV content has reduced the challenges associated with location and space to view TV shows. Students do not have to be confined to their dormitories or homes to engage in binge watching. This accessibility has increased the time that students choose to spend in binge viewing behavior.

The marketing tactics of the TV viewing platforms further aggravates the binge-watching behavior of students. These platforms use multiple marketing strategies - viral content trailers, innovative ad campaigns and word-of-mouth to bring back their viewers again and again. They also advertise during the binge-watching process, luring the captivated audience with promises of another exciting binge watching session. Marketing is taken seriously as is evident by Netflix spending \$714.3 million in worldwide advertising in 2015, up from \$533.1 million the year prior, according to company SEC filings. Advertising expenditure for Netflix is equivalent to 10.5 per cent of its total revenue (Poggi, 2016).

Overall, findings indicate that while students are motivated to spend more time binge watching to satisfy their expected gratifications, there definitely exists a danger of them getting addicted to it - specifically when they experience negative gratifications at the end of the binge viewing session. This finding is unique and offers an insight into the binge-watching behavior of college students. The findings are disturbing as college students are vulnerable to getting addicted to binge behavior to escape from the negative repercussions of binge watching itself.

Conclusion, limitations and future research direction

The objective of the study was to explore the pre-binge motivations and post-binge gratifications that influence college students to spend more time binge watching. Findings indicate that college students binge watch because of social influence, escape reality, accessibility of TV shows through multiple platforms and the advertising effectiveness of content providers. They are more likely to spend binge watching if they are negatively gratified – to avoid feeling anxiety/guilt after a binge-watching marathon.

The study makes an important contribution to understand the binge-watching phenomenon among college students. However, it suffers from certain limitations - the sample is primarily confined to undergraduate students in a single university and needs to be extended to other institutes as well. All data were self-reported, which could be susceptible to problems related to reliability and validity. Also, the data collected were cross-sectional. Longitudinal research is necessary to monitor the binge watch behavior of students, capturing both positive and negative motivations for binge watching and their post-binge behavior. Future studies are encouraged to adopt multiple methodologies to better understand the binge watch phenomena.

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