

**AN EXPLORATION INTO THE EXTENT OF BINGE-WATCHING AND
RELATIONSHIP WITH ITS EFFECTS - ACADEMIC ENGAGEMENT, SLEEP
PATTERN, EATING HABITS, AND PSYCHOLOGICAL WELLBEING, ON
ADOLESCENTS DURING COVID-19**

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Abstract

The present study deals with exploring the extent of binge-watching and its relationship with its effects in terms of academic engagement, sleep pattern, eating habits, and psychological wellbeing on adolescents during COVID-19. Binge-watching is a relatively new concept that got popularized with the advent of on-demand viewing and online streaming. It came into the mainstream during 2013 when NETFLIX started releasing seasons after seasons. Binge-watching has been defined by different researchers in the form of watching a number of episodes in one single sitting, even watching a number of episodes daily, weekly, or monthly. In the present study, investigators showed that 26.3% adolescents watched more than ten shows, around 40% watched 5-10 shows and 36% watched less than 5 shows during the past 8-10 months of COVID-19. 22.4% adolescents watched the shows every day, around 43% watched them 2-3 times a week and around 35% watched the shows once a week. Further analysing the extent of binge-watching, 11% adolescents watched more than 5 episodes, 40% watched 3-5 episodes and 49% watched less than 3 episodes of a show in one single sitting.

Further, investigators studied the relationship of the extent of binge-watching with academic engagement, sleep pattern, eating habits, and psychological wellbeing of adolescents. The study was conducted on a sample of 152 adolescents using the snowball sampling technique. The results showed that an increase in the extent of binge-watching leads to decreases in the academic engagement of adolescents, disturbed sleep patterns of adolescents, and poor psychological wellbeing of adolescents. Extent of binge-watching has no relationship with the eating habits of adolescents.

Key Words:Extent of binge-watching, academic engagement, sleep pattern, eating habits, and psychological wellbeing

Introduction

The last few years have seen major developments in the field of entertainment, the principal one being - the substantial decrease in television audience viewership and the subsequent shift to video-on-demand streaming services such as Netflix, Amazon Prime Video, Disney Hot star, Voot, etc. These are also commonly known as over-the-top media (OTT) platforms since they provide services directly to viewers via the Internet. The unique feature of these platforms is that they offer to view autonomy to the subscriber. The subscribers are free to watch as many episodes of a show as they want. The entire season is available at once and there is no need to wait for an episode each week. Further, users can choose from a wide range of genres, formats, and languages. Thus, there is virtually no end to the amount of content one can consume through these streaming services. As a result, making movies and, particularly, TV shows more easily accessible to consumers, may have caused excessive and rampant use of video-on-demand services, leading to the phenomenon of ‘binge-watching’.

Since binge-watching is a relatively new notion, it has not yet been formally conceptualized. Some define it as the practice of watching multiple episodes of a series in one sitting, while some consider it to be watching at least two or more episodes of the same show in one single sitting. (Flayelle et. al.,2019; Pitmann& Sheehan, 2015; Walton-Pattison, Dombrowski, &Presseau, 2016). Regardless, binge viewing has ushered in a new era of television viewing habits among the youth. Its growing popularity can be attributed to dependence on new media and the widespread usage of smartphones. The popularity of binge-watching increased in the last decade. The latest data of Netflix, from the third quarter of 2019, shows that the streaming service has over 167 million paying subscribers. From 5 million in 2012 to more than 167 million in 2020, this number has risen significantly. (Starosta & Izydorczyk, 2020).

Binge-watching is often associated with -instant gratification and thus has certain effects both positive and negative, ranging from psychological to biological.

Present study

During the COVID-19 pandemic the children are sitting in front of screenS in their houses most of the time as the schools are closed. There are no or little social interactions or outings. So there are limited sources of entertainment that too on-screen. As a result, there is a surge in the use of OTT platforms by adolescents. In the present study, the researchers tried to study the relationship between the extent of binge-watching and the effects of

binge-watching. Four components related to its effects were chosen for a study that is academic engagement, sleep pattern, eating habits, and psychological wellbeing.

Academic engagement refers to the extent/level of involvement shown by students in teaching-learning process. Motivation to learn, the degree of attention, interest, and passion are some of the elements of academic engagement. Increased academic engagement leads to more progress in their education. Academic engagement got affected by various kinds of distractions. Winland (2015) in his study viewed that students got distracted from academics by watching online content for a longer duration of time that is 3-8 hours. In the present study academic engagement is conceptualised in the form of the following statements:

1. I feel more motivated to watch episodes of a show than to study.
2. My academic performance and scores have gone down during the past few months.
3. Submission of my academic work often gets delayed due to watching many shows/movies.
4. I frequently lose attention during my school classes.
5. I sometimes watch multiple episodes of my favourite show while attending online classes.
6. I find myself thinking about events or characters of a show during my online classes.

Sleep pattern:

Workplace testing (2020) defines sleep pattern as “a biological rhythm that guides the body as to when it should sleep and when it should wake. It further explains that a person’s sleep pattern is an important factor in their overall health and wellness. The reason for this being that sleep serves to replenish the body both mentally and physically”. Exelmans& Van den Bulck (2017) studied binge viewing, sleep, and the role of pre-sleep arousal and found that “higher binge viewing frequency leads to a poorer sleep quality, increased fatigue and more symptoms of insomnia, whereas regular television viewing was not”. In the present study sleep pattern is conceptualised in the form of the following statements:

1. I sacrifice my sleep to complete a certain number of episodes of my favourite show.
2. I'm not able to go to sleep easily after watching a number of episodes of a show.
3. I feel sleepy during school classes, after watching a number of episodes of a show the previous night.
4. I feel strain in my eyes after watching a number of episodes in one sitting.

5. I try not to watch too many episodes of a show continuously but I'm unable to do so.
6. I find it difficult to wake up on time for my classes/ schedule

Eating habits:

Collins dictionary defines eating habits as “the way a person or a group eats, considered in terms of what types of food are eaten, in what quantities and when”.

Many studies have established the relation between screen time and binge eating. The extent of binge-watching may affect the choices of food or timings of eating. In the present study eating habits is conceptualised in the form of the following statements:

1. I feel hungry while watching a number of episodes in one sitting
2. I stress eat while watching an intense, thrilling show.
3. I tend to overeat while watching a number of episodes of a show in a single sitting.
4. I feel emotionally better when I munch/eat something while watching a show.
5. Fried and junk food are my favourites to munch up.

Psychological wellbeing:

The psychological well-being of students has been an area of concern for educators and psychologists all over the world since the start of the pandemic. Shrinking social life is pushing these young people towards the virtual world. Watching more and more shows led them to live in dream world and also identifying themselves more with the characters of the show rather than the people around them. They may feel guilty anxious regretful depressed and mentally drained after watching multiple episodes in quick succession. In the present study psychological wellbeing is conceptualised in the form of the following statements:

1. I prefer to watch movies and shows rather than spend time with family and friends.
2. I connect better with the characters of my favourite show more than people around me.
3. I spend a lot of time thinking about shows and movies I have watched recently.
4. I feel guilty and regretful after watching multiple episodes of a show.
5. I feel depressed when a show comes to an end.
6. I always feel anxious about what will happen next in my favourite show.

Extent of Binge-watching:

Starosta and Izydorczyk (2020) explained binge-watching in the form of a number of episodes watched during a session, the frequency of binge-watching sessions, and the content being watched. Taking a clue from a number of other studies, they highlighted

binge-watching as watching 1-6 episodes in one single sitting or focusing on the length of episodes defined binge-watching as watching 3-4 or more 30 minutes long episodes of TV series or 3 or more 1 hour-long episodes. Moreover, in terms of frequency, individuals engage themselves per day, week or month.

Many researchers defined binge-watching in other different ways. In the present study, investigators choose to explain binge-watching in the form of the extent of binge-watching taking in view the responses of the adolescents on three statements.

1. How many shows have you watched during the past 8-10 months?
2. What is your frequency of watching shows?
3. How many episodes do you watch in one sitting?

Review of previous literature

Wheeler (2015) investigated the television viewing behaviour of college students. It includes binge-watching television, affinity to television, and motivation for television-viewing. He assessed that television-viewing behaviour is related to attachment, loneliness, depression, and psychological well-being. The results showed that binge-watching television is positively associated with attachment, anxiety, and depression.

Winland (2015) studied the online streaming behaviours of college students and their relationship with academic commitment. The research highlighted that students were spending less time on academic pursuits. 50% of the sample students agreed that watching online content distracted them from their academics. Around 25% of the sample students spend 8 or more hours per week watching online content. 87% of participants spend more than 3 hours watching online content in a single sitting on at least one occasion. 29.6% had spent more than 8 straight hours watching online content at some point. 40% of participants spend 8 or more hours per week on academic coursework. 39.4% of students reported that they were less engaged in their academics than with online content.

Pena (2015) explored the effects of binge-watching on television viewer reception. The experimental study was conducted on 212 university students. They were assigned to watch one of the two drama series with one of the viewing conditions- binge-watching or appointment viewing. Data measuring reception factors such as opinion, enjoyment, and satisfaction were collected using questionnaires and short episodic diary surveys. The results of the study highlighted that effect of binge-watching on viewer reception was dependent on the show. Binge-watching acted as a source of pleasure and escape rather than appointment viewing. Moreover, it had been found that binge-watching acted as an escape gratification. This probably had a negative effect on academic engagement.

Wagner (2016) studied the various aspects of television binge-watching behaviours. He also studied the relationship of guilt with binge viewership. A survey on 530 adults was conducted. Viewers, who watch less TV felt guiltier about binge-watching. Comedies and dramas were the most binge-watched shows. Guilt had been found to be associated with binge-watching teen dramas. The results of the study showed that guilt was not associated with the social context for viewership. The medium through which television was binged was also not associated with guilt. Background noise for multitasking, avoiding spoilers, maximizing social currency, and escapism acted as motivating factors behind binge-watching.

Ahmed (2017) investigated binge-watching and its psychological effects among 260 Arab residents in UAE. The results showed that viewers used YouTube and TV program websites for binge-watching. They used smartphones and laptops for viewing. The results further highlighted that viewers of the younger age group did more binge-watching. Moreover, binge-watching is positively correlated with depression but TV watching and loneliness showed no significant correlation.

Panda & Pandey (2017) tried to explore various motivating factors that influenced college students to spend more time binge-watching. Viewing the content as per their convenience has resulted the viewers in viewing multiple episodes of television shows in a short time frame. This led to binge-watching by the viewers. The results indicated that social interaction, escape from reality, easy accessibility to the TV content and advertising motivate college students to spend more time binge-watching. Negative gratification from binge-watching increases the time of binge-watching by the students.

Troles (2019) tried to study in-depth binge-watching behaviour. The linear mixed model (LMM) analysis indicated that significantly strong positive correlations were found between watching video streaming content and feeling more happy and relaxed afterward. No significant correlation between negative psychological consequences and watching video streaming content was demonstrated. No adverse effects on health and extreme neglect of daily duties were found.

Anozie (2020) studied and examined whether the association between the frequency of binge-watching and negative and positive emotions. A survey was done on 66 participants. The results showed that people who binge-watch more shows more negative emotions such as loss of control and dependency, and people who binge-watched less experienced more positive emotions.

Starosta and Izydorczyk (2020) tried to understand the concept and psychological conditions of binge-watching through a systematic review study. He addressed different approaches to defining binge-watching, studied diverse factors of motivations and personality traits. He also studied the risks of excessive binge-watching. The results emphasized the two perspectives in understanding binge-watching. Entertainment, positive emotions, cognition, and spending free time highlight the first perspective of binge-watching whereas the negative outcomes of excessive binge-watching and symptoms of behavioural addiction highlights another perspective.

Delimitation of the study

The study was delimited to:

- Adolescents residing in Punjab and Chandigarh.

Objectives

The objectives of the study are:

1. To study the relationship of the extent of binge-watching and the academic engagement of adolescents.
2. To study the relationship of the extent of binge-watching and the sleep pattern of adolescents.
3. To study the relationship of the extent of binge-watching and the eating habits of adolescents.
4. To study the relationship of the extent of binge-watching and the psychological wellbeing of adolescents.

Hypotheses

1. There is no significant relationship between the extent of binge-watching and the academic engagement of adolescents.
2. There is no significant relationship between the extent of binge-watching and the sleep pattern of adolescents.
3. There is no significant relationship between the extent of binge-watching and the eating habits of adolescents.
4. There is no significant relationship between the extent of binge-watching and the psychological wellbeing of adolescents.

Methodology

Sample

The students studying in class IX-XII are in the age group relating to adolescents. The adolescents were taken as the population for the study. A sample of 152 adolescent students was drawn from the said population through snowball sampling techniques.

Tools used

Following tools were used to collect the raw data of the study.

1. Extent of a binge-watching questionnaire constructed by the investigators themselves.
2. Effects of binge-watching questionnaire constructed by the investigators themselves.

Design of the study

The study was conducted using the descriptive survey method.

Procedure

The purpose of the study was to see the relationship between the extent of binge-watching and effects on academic engagement, sleep patterns, eating habits, and psychological wellbeing of adolescents of Punjab and Chandigarh during COVID-19. Investigators themselves constructed the questionnaires. The questionnaires were employed on the said sample of 152 adolescents. The raw data was collected online through Google forms. As the schools were closed due to the COVID-19 pandemic, a snowball sampling technique was used to collect the data. The scores were calculated and tabulated. The obtained scores were subjected to analysis by calculating Pearson's correlation coefficient through SPSS. Finally, the results were obtained and discussed.

Statistical tools used

Pearson correlation statistics were used through SPSS to analyze the data.

Analysis of the data

Extent of binge-watching

Table 1 : Extent of binge watching

S.No.	Statements	less than 5 shows	5-10 shows	Greater than 10 shows
1.	How many shows have you watched during the past 8-10 months?	34	40%	26%
2.	What is your frequency of watching shows?	Everyday	2-3 times a week	Once a week
		22%	43%	35%
3.	How many episodes do you watch in one sitting?	Less than 3 episodes	3-5 episodes	more than 5 episodes
		49%	40%	11%

26% adolescents agreed that they have watched more than ten shows; around 40% adolescents agreed that they have watched 5-10 shows and 34% of them watched less than 5 shows during the past 8-10 months of COVID-19 during which lockdown was prevalent. 22% adolescents watched the shows every day, around 43% watched the shows 2-3 times a week and around 35% watched the shows once a week. Further analysing the extent of binge-watching, 11% adolescents watched more than 5 episodes, 40% watched 3-5 episodes and 49% watched less than 3 episodes of a show in one single sitting.

Relationship between extent of binge-watching and effects of binge-watching

Table 2: Coefficient of correlation value for the relationship between the extent of binge-watching and academic engagement of adolescents

S.No.	Variable	N	M	SD	Coeff. of Correlation (r)	Level of Significance
1.	Extent of Binge-watching	152	5.74	1.55	-0.306	.01
2.	AcademicEngagement	152	18.08	5.45		

Table 2 shows the mean scores of the extent of binge-watching and the academic engagement of adolescents. The mean scores of extent of binge-watching and academic

engagement are 5.74 & 18.08 respectively. The Pearson's coefficient of correlation value has been found to be -0.306 which is found to be significant at .01 levels of significance. Thus the extent of binge-watching has an inverse relationship with the academic engagement of adolescents. As the extent of binge-watching by adolescents increases, the academic engagement of adolescents decreases. Hence the hypothesis, 'there is no significant relationship between the extent of binge-watching and academic engagement of adolescents, may not be accepted.

Table 3: Coefficient of correlation value for the relationship between the extent of binge-watching and sleep patterns of adolescents

S.No.	Variable	N	M	SD	Coeff. of Correlation (r)	Level of Significance
1.	Extent of Binge-watching	152	5.74	1.55	-0.218	.01
2.	Sleep pattern	152	18.96	5.60		

Table 3 shows the mean scores of the extent of binge-watching and sleep patterns of adolescents. The mean scores of the extent of binge-watching and sleep pattern of adolescents are 5.74 & 18.96 respectively. The Pearson's coefficient of correlation value has been found to be -0.218 which is found to be significant at .01 levels of significance. Thus the extent of binge-watching has an inverse relationship with the sleep patterns of adolescents. As the extent of binge-watching by adolescents increases, the sleep pattern of adolescents gets disturbed. Hence the hypothesis, 'There is no significant relationship between the extent of binge-watching and sleep pattern of adolescents', may not be accepted.

Table 4: Coefficient of correlation value for the relationship between the extent of binge-watching and eating habits of adolescents

S.No.	Variable	N	M	SD	Coeff. of Correlation (r)	Level of Significance
1.	Extent of Binge-watching	152	5.74	1.55	-0.105	.197-NS
2.	Eating Habits	152	16.30	4.84		

Table 4 shows the mean scores of the extent of binge-watching and eating habits of adolescents. The mean scores of the extent of binge-watching and eating habits of adolescents are 5.74 & 16.30 respectively. The Pearson's coefficient of correlation value has been found to be -0.105 which is not found to be significant at .05 levels of significance. Hence the hypothesis, 'There is no significant relationship between binge-watching and eating habits of adolescents', may be accepted. Alternatively, the extent of binge-watching does not have a relationship with the eating habits of adolescents.

Table 5: Coefficient of correlation value for the relationship between the extent of binge-watching and psychological wellbeing of adolescents

S.No.	Variable	N	M	SD	Coeff. of Correlation (r)	Level of Significance
1.	Extent of Binge-watching	152	5.74	1.55	-0.213	.01
2.	Psychological wellbeing	152	20.92	5.67		

Table 5 shows the mean scores of the extent of binge-watching and psychological wellbeing of adolescents. The mean scores of the extent of binge-watching and psychological wellbeing of adolescents are 5.74 & 20.92 respectively. The Pearson's coefficient of correlation value has been found to be -0.213 which is found to be significant at .01 levels of significance. Thus the extent of binge-watching has an inverse relationship with psychological well-being of adolescents. As the extent of binge-watching by adolescents increases the psychological wellbeing of adolescents decreases. Hence the hypothesis, 'There is no significant relationship between the extent of binge-watching and psychological wellbeing of adolescents', may not be accepted.

Discussion

Binge-watching has been defined as watching a number of episodes in one single sitting, even watching a number of episodes daily, weekly or monthly. The present study highlighted that more than 66% adolescents watched more than 5 shows having a large number of episodes during a span of 8-10 months and some of them even watched more than 10 shows during this period. They even watched the shows daily or some of them watched 2-3 times a week. Around half of the adolescents seem to watch more than 3 episodes in one single sitting even some watched more than 5 episodes in one single sitting. The result has been supported by Starosta and Izydorczyk (2020), Flayelleet. al. (2019), Pitmann & Sheehan (2015), and Walton-Pattison, Dombrowski, & Pesseau (2016).

The Extent of binge-watching has a marked effect on the academic engagement of adolescents. The adolescents who binge watch more tend to have low academic engagement (supported by the study of Winland, 2015 and Pena, 2015). During COVID-19 since adolescents were sitting at home, they had no means to entertain themselves so they feel more motivated to watch shows than to study. Their attention span decreased and they remained involved in dreaming about the shows. This led to a decrease in their academic performance.

Excessive binge-watching by adolescents during this period led to disturbed sleep (supported by Exelmans & Van den Bulck, 2017). Since adolescents were watching a number of shows in one single sitting even by sacrificing their sleep so they feel sleepy during the school online classes and experience strain in their eyes. They were not able to sleep properly after watching a large number of episodes in one single sitting. This also prevented them to be on schedule for their classes.

Adolescents who were binge-watching a lot had negative effects on their psychological wellbeing also. Supporting this result Ahmed (2017) highlighted that binge-watching is positively correlated with depression. In the present study, adolescents preferred to watch movies and shows rather than spending time with family and friends, remained thinking about shows and movies which they had watched, identified them with the characters of the shows, felt depressed after the end of the show, and felt anxious to know the outcome of the to be watched episodes.

The relationship between the extent of binge-watching and eating habits is found to be non-significant. The result may be attributed to the fact that during lockdown the availability of junk food was limited. Hence the adolescents were totally dependent on homemade food.

Thus the extent of binge-watching has a negative relationship with the effects of binge-watching.

Conclusion

The results of the study clearly highlighted that during the pandemic the phenomenon of binge-watching gained roots among adolescents. It affected every aspect of their life ranging from academic engagement to psychological wellbeing in a negative manner. They drifted towards the virtual world through these shows. Eating habits and sleep patterns, everything got disturbed. Serious thoughts must be given to it both by educators and parents otherwise it may lead to more serious consequences in the future.

References

1. Ahmed, A. (2017). New Era of TV-Watching Behaviour: Binge-watching and its Psychological Effects. *Media Watch*, 8, 192-207. Retrieved from: <https://www.semanticscholar.org/paper/New-Era-of-TV-Watching-Behavior%3A-Binge-Watching-and-Ahmed/21bf6232d3c5fb8d90af5367ad41910ea2ba26ca#paper-header>
2. Anozie, V. (2020) "Effects of Emotion on Binge-Watching," *Modern Psychological Studies*: Vol. 25 : No. 1 , Article 9. Available at: <https://scholar.utc.edu/mps/vol25/iss1/9>. Retrieved from: <https://scholar.utc.edu/cgi/viewcontent.cgi?article=1464&context=mps>
3. Collins Dictionary (x). Eating Habits. <https://www.collinsdictionary.com/dictionary/english/eating-habits>
4. Exelmans, L., & Van den Bulck, J. (2017). Binge Viewing, Sleep, and the Role of Pre-Sleep Arousal. *Journal of clinical sleep medicine: JCSM: official publication of the American Academy of Sleep Medicine*, 13(8), 1001–1008. <https://doi.org/10.5664/jcsm.6704>
5. Flayelle, M., Canale, N., Vogele, C., Karila, L., Maurage, P., & Billieux, J. (2019). Assessing Binge-watching Behaviours: Development and validation of the “Watching TV Series Motives” and “Binge-watching Engagement and Symptoms” questionnaires. *Computer in Human Behaviour*, 90, 26-30. Doi: 10.1177/1359105316643379. Retrieved from: https://essay.utwente.nl/78395/1/Troles_BA_Psychology.pdf
6. Panda, S. and Pandey, S. C. (2017). Binge-watching and college students: motivations and outcomes. *Young Consumers*. 18. 00-00. 10.1108/YC-07-2017-00707. Retrieved from: https://www.researchgate.net/publication/320309167_Binge_watching_and_college_students_motivations_and_outcomes
7. Pena, L. (2015). Breaking Binge: Exploring the Effects of Binge-watching on Television Viewer Reception. Retrieved from: <https://www.semanticscholar.org/paper/Breaking-Binge%3A-Exploring-The-Effects-Of-Binge-On-Pena/08c9b98193bb48c245c5422cbbe612abbbf53a87#citing-papers>
8. Pittman, M., & Sheehan, K. (2015). Sprinting a media marathon: uses and gratifications of binge-watching television through Netflix. *First Monday*. 20(10).

- Doi:10.5210/fm.v20i10.6138 Retrieved from:
https://essay.utwente.nl/78395/1/Troles_BA_Psychology.pdf
9. Starosta, J. and Izydorczyk, B. (2020). Understanding the Phenomenon of Binge-Watching—A Systematic Review. *International Journal of Environmental Research and Public Health*. 17. 4469. 10.3390/ijerph17124469. Retrieved from: https://www.researchgate.net/publication/342384659_Understanding_the_Phenomenon_of_Binge-Watching-A_Systematic_Review
 10. Troles, H. (2019). *Binge-watching and its influence on psychological well-being and important daily life duties: An Experience Sampling Study*. BMS: Behavioural, Management and Social Sciences. <https://essay.utwente.nl/78395/>
 11. Wagner, Charles N. (2016). "Glued to the Sofa": Exploring Guilt and Television Binge-Watching Behaviors". Communication Honors Theses. 11. http://digitalcommons.trinity.edu/comm_honors/11
 12. Walton-Pattison, E., Dombrowski, S.U., & Presseau, J. (2016). "Just one more episode": Frequency and theoretical correlates of television binge-watching. *Journal of Health Psychology*, 23(1), 17-24. Doi:10.1177/1359105316643379 Retrieved from: https://essay.utwente.nl/78395/1/Troles_BA_Psychology.pdf
 13. Wheeler, K.S. (2015), "The Relationships Between Television Viewing Behaviors, Attachment, Loneliness, Depression, and Psychological Well-Being". *Honors College Theses*. 98. <https://digitalcommons.georgiasouthern.edu/honors-theses/98>
 14. Work Place Testing (2020). Sleep Pattern. <https://www.workplacetesting.com/definition/2997/sleep-pattern>
 15. Winland, C. (2015). An Exploration of Binge-Watching and Its Effects on College Academic (Master Dissertation). Retrieved from: <https://static1.squarespace.com/static/54c08e42e4b0f1b78348c9ce/t/5527e9a3e4b0c120ebdc7650/1428679075633/Winland+-+Final+Paper.pdf>