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## Online Streaming Services: A Study on Consumers' Attitudes toward Advertising

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Honors Capstone Project  
HP-450

**Online Streaming Services: A Study on Consumers' Attitudes toward Advertising**

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## **Abstract**

Throughout the past decade, there has been a slow and steady rise in the number of online streaming platforms. Websites such as YouTube, Twitch, and Netflix have all taken the globe by storm with their compelling stories and interconnected communities. The numbers alone for each of these platforms speaks volumes to their prevalence in society; YouTube has over 2 billion monthly users, Netflix has well over 167 million consumers, and Twitch currently has 15 million daily active users (Frade, 2021). From this, of course, arises companies' desire to broadcast their products and services to the vast number of people who are using these services in hopes of gaining their attention and eventually brand loyalty. However, viewers on these platforms are well aware of advertising tactics of older mediums, meaning that these companies must find modern methods to meet the desires of their consumers. This research, through two online experimental studies explores the advertisement format-choice and their attitudes and preferences on different types of streaming platforms. Implications for marketing practitioners and consumers are also discussed.

*Keywords: Streaming; Online; YouTube; Netflix; Marketing; Advertising*

## **Research Motivation**

The primary motivation of pursuing this research as a part of my capstone project is because of the novelty of the subject. Despite streaming services being around for several decades, very little research has actually been done in regard to this subject (Frade, 2021). With unprecedented global events such as the Covid-19 shaking the world in multiple ways such as transforming consumer lifestyles and consumption patterns (Zwanka & Buff, 2021; Gupta & Singharia, 2021), streaming services have become a way for people to watch shows and movies to unwind and to learn information. The consumption of video streaming services increased from 19% in the fourth-quarter of 2019 to 25% in second-quarter of 2020 when Covid-19 had spread globally (Nielson, 2020).

In the light of the above discussion, I felt very strongly toward researching this subject which is both timely and pertinent. Due to the popularity of streaming services, business organizations consider them as promising emerging platforms for advertising (Pymnts, 2023). Hence, it is important to understand what consumers would feel the most receptive toward while watching content on streaming services. Potential research findings will not be only limited to larger organizations alone. Streaming services can be used as an advertising platform by organizations of all sizes (small/medium/large). In sum, the relevance of the research topic and the dearth of research on the same motivated me to explore the area.

## **Introduction and Literature Review**

As streaming service-platforms have begun to have more and more prominence in the lives of everyday Americans (Nielson,2020), it is important to better understand some of the behavioral patterns that have risen as a response to the choices these platforms have made

regarding different aspects of their services. One of the largest patterns being seen in people across the country is the general behavior toward advertisements on streaming platforms. Those who watch these streaming platforms are much more mindful of the advertisements that are being put before them and, unlike their television-watching counterparts, do not view these advertisements as another form of content. They are much more aware of the fact that they are in fact being advertised to, and will often report that they find it increasingly intrusive the more they are aware of advertising that is happening while they are viewing content (Logan, 2013). As a result of this virulent behavior towards advertising on these streaming platforms, much of the actions carried out by these groups are incredibly different from those who only watch television. Many of these online streaming service users will create and repeat various methods to help them skip advertisements as quickly as possible, and this, in turn, affects their view of brands that advertise unskippable ads. Users may try and use ad blockers or move away from their device as a method of distancing themselves from these advertisements, and will continually do so if they find that the ads being put in front of them are not skippable (Duffet, Petrosanu, Negricea, Edu, 2019). As a result, much of their perceptions of the brands that are advertising these long and unskippable ads are incredibly negative. While many may be able to recall things about the brand and the product being sold, they are not likely to enjoy the product as they have a negative view of it due to the advertisement (Duffet, Petrosanu, Negricea, Edu, 2019). This information also speaks to how vital timing is in regard to advertisement length on these platforms. With so many viewers potentially skipping advertisements before they are able to learn anything about the product or service being sold, finding the correct amount of time for online advertisements is vital. Longer advertisements, on the whole, are viewed as more intrusive, while shorter ads do not seem to have the level of brand recall or purchase intentions that longer advertisements do

(Li, Lo, 2015). Therefore, one of the better ways that could attract customers to stay on an advertisement is through the use of humor, information, and customization on an ad's skippable nature. By having the customer feel that they are able to watch these advertisements on their own terms, many are more willing to engage with the advertisements (Bellman, Potter, Robinson, 2021). These aspects make customers feel as though the advertisement itself is not as intrusive, even if they are longer or potentially unskippable. Not only this, but allowing for these aspects to be put in front of the consumer will also increase their chances of recalling the brand at a later time as well as having a more positive outlook of the product, being much more likely to purchase it in the future. Another interesting aspect to note is the finding that consumers who feel they are more related to a product that is being advertised to them are much more receptive toward it, and as a result are more likely to purchase the product (Belance, Flavian, Perez-Rueda, 2020). Noting this is important in better understanding why customers may react differently to the same advertisements. As an example, showing two women an advertisement for children's diapers, while one is a mother and the other is not, will elicit different responses, and the mother may be more interested in learning about the diapers as a result. This difference in interest towards advertising also extends into who exactly is creating content themselves, as it has been found that people who create content on platforms such as YouTube are much more invested in advertisements on the platform than those who simply view content (Joa, Kim, Ha, 2018). This may also play a pivotal role in how advertisements are viewed on streaming platforms, as many of these creators can have a say in what content is advertised, and in turn change what viewers of content are seeing and engaging in. As more and more information is generated about the behaviors consumers have while viewing advertisements on online streaming platforms, there are also several limitations visible that will be addressed during this study.

As mentioned before, there were several glaring limitations in the information present while looking at the variations of behavior among users on online streaming service platforms. For one, many of them only focused on one platform during any given study. While many of them used websites such as YouTube as a baseline for customer responses in these studies, none thus far have looked at the differences in platforms and advertising choices. Not only this, but many of these studies specifically look at advertisements that happen before, during, and after the videos themselves. For our research then, it was decided that there would be a focus on finding the potential difference in platforms, such as AVOD v. SVOD, as well as looking at the different types of advertisements that can be shown on such platforms beyond just video-based advertisements.

### **Research Questions**

This research was pursued with a purpose of answering below two questions. Two studies were conducted to answer the above research questions.

- a) Does consumer response to advertisements depend on the format of advertisements on different streaming platforms?
  
- b) Does consumers' attitude toward advertisement on streaming platform change based on the physical position of the presented advertisement?

### **Overview of Studies**

This research includes a set of two online experimental studies, Study 1 aims to explore participant preference between digital print and video advertisements on AVOD (YouTube) and SVOD (Netflix) platforms. The second study explores consumer affect, advertising engagement, and purchase behavior based on the placement of the advertisement on AVOD platforms.

## Study 1

Study 1 was pursued with the purpose of understanding consumer preference of advertisement format (digital print vs. video ads) on AVOD (advertising video on demand) or SVOD (streaming video on demand) services.

### Study 1 Methods

One hundred US adults (18 years and older) were recruited from Cloud Research Turk Prime to participate in the survey in exchange for a small monetary compensation. One participant was excluded from the data as they indicated that they do not use any streaming service. So, the usable sample consisted of ninety-nine participants (36.7% male, 0.02% non-binary;  $M_{age} = 43.72$  years,  $SD = 12.44$  years). The study survey was created on Qualtrics and deployed on Cloud Research Turk Prime. The study had two experimental conditions —AVOD (YouTube) and SVOD (Netflix). The study design was between-subjects, that is, each study participant was randomly assigned to one of the two experimental conditions. Once participants consented to participate in the survey, they were shown experimental stimuli and were presented with a study scenario saying “Imagine you are watching your favorite show on YouTube (vs. Netflix) using your “basic” subscription plan. During the show, you see an advertisement”. This scenario description was followed by a webpage image of YouTube (vs. Netflix) to prime the study participants into the assigned experimental condition. On the next page, they were shown a video and a digital print advertisement for a hamburger and fries (please see appendix for Study 1 stimuli). The digital print ad shows a hamburger and fries with text saying “Let’s Eat”. The video ad shows the same image in animation with an instrumental music clip added to it (to make it multisensory to mimic typical video ads). From there, respondents were asked to choose



which advertisement format they preferred to watch on the streaming service platform. The demographic details of the study participants were collected at the end of the survey. Study participants were also asked if they used streaming services as a qualifier question.

### Study 1 Results

Chi-square goodness-of-fit tests revealed that in SVOD (Netflix) condition participants are indifferent in their choice of the ad format SVOD platform (Netflix), the number of choice votes for both video and digital print ad were the same: 25 (vs. 25) ( $\chi^2 (1) = 0.000, p = 1$ ). On the other hand, for AVOD platform (YouTube) study participants, there is significant difference in choice votes between the ad types with most participants choosing the digital print ad over the video ad: 34 (vs. 15) ( $\chi^2 (1) = 4.26, p = .007$ ). Please see table 1 and figure 1 below for a summary of study results.

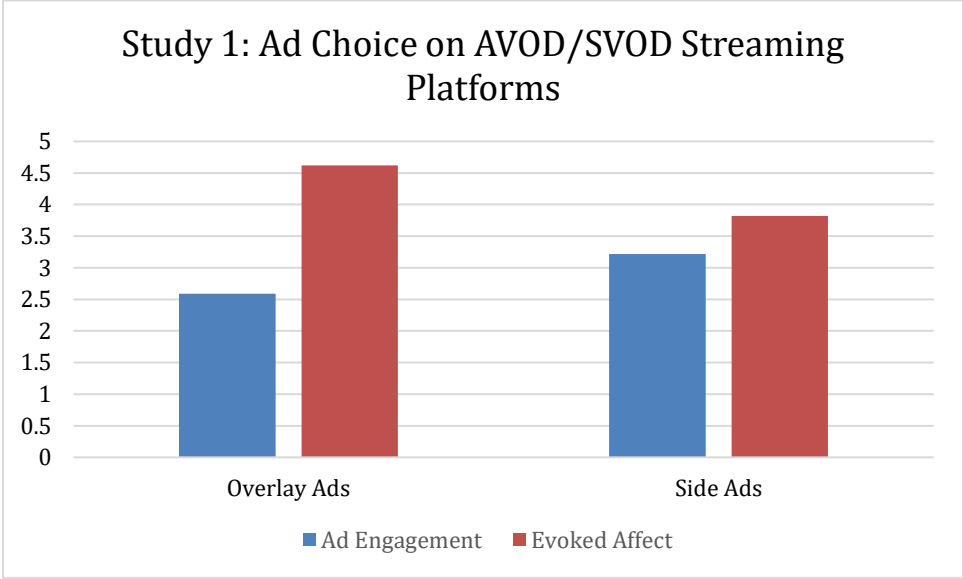


Figure 1: Ad Choice on AVOD/SVOD Streaming Platforms

Streaming Service	AVOD (YouTube)		SVOD (Netflix)	
Ad format	Digital Print Ad	Video format Ad	Digital Print Ad	Video format Ad
Number of Votes	34	15	25	25
<i>p</i> value	0.007		1	
Chi square goodness-of-fit	$\chi^2 (1) = 4.26, p = .007$		$\chi^2 (1) = 0.000, p = 1$	

Table 1: Study Results of Study 1

### Study 1 Discussion

The data in this study shows that there is a clearer preference for digital print-based advertisements on AVOD platforms. No similar results were observed for SVOD platforms. The very distinctive preference of digital print advertisements over video advertisements on AVOD platforms may also lend itself to the idea that consumers may be less tolerant of video ads when the platform is free for them to use. To elaborate further, for the “basic” plan on YouTube, advertisements are shown intermittently during the videos being watched. Since the consumers are not paying a subscription fee to watch content on such platforms, they may be less tolerant of video ads which may be perceived as more intrusive (due to more mental processing required on the part of the consumers). Hence, a preference for digital print ads. The same however does not apply to SVOD platforms (Netflix with “basic with ads” plan) as the consumer has paid a price to watch the content there and thus is likely to be more invested on the platform even if it comes at the psychological cost of experiencing negative emotions evoked by potential intrusiveness.

## Study 2

The second study was conducted to garner insights on potential preferences of advertisements and their evoked consumer outcomes based on their physical placement on AVOD platforms.

### Study 2 Methods

One hundred and twenty adults (18 years and older) were recruited from Cloud Research Turk Prime to participate in the survey in exchange for small monetary compensation. This survey consisted of a sample of one hundred and twenty participants (57% male, 43% female  $M_{\text{age}}=41.04$  years,  $SD=12.77$  years). This study survey was created on Qualtrics and deployed on Cloud Research Turk Prime. Based on Study 1 results, the focus was narrowed to AVOD platforms in this study. There were two experimental conditions — overlay advertisements and side advertisements. The study design was between subjects, similarly to the Study 1, in which participants were randomly assigned to one of the two conditions. Once participants consented to the survey, they were exposed to the experimental stimuli and presented a scenario that read “Imagine you are watching your favorite show on YouTube (considering you do not have a premium subscription plan). During the show, you see an advertisement.” The scenario description was followed by a webpage image of YouTube to psychologically prime the participants for being on YouTube. On the next page, they were shown two video mockups, with one having an overlay advertisement (superimposed on the video as a bottom bar) while the other had a side advertisement (appearing on the side of the website in minimized video view) (please see appendix for Study 2 stimuli). Participants using mobile devices were prevented from taking the survey as the limited screen size could hamper the physical positional appearance of the advertisements. Both advertisements featured a picture of burgers and fries similar to the

digital print advertisement in Study 1 alongside text that said “Delicious Burgers.” The reason for choosing this as the ad stimuli-product is that burger and fries is a commonly purchased food item that all participants are able to afford. A qualifier question asking if the participants consume the burgers was also asked. The survey participants in each condition were asked to rate below:

1) *Ad engagement* (ranked on a four item seven-point Likert scale). This scale was adapted from (Kim, Ahn, Kwon, Reid, 2017). The scale items were: a) While seeing the ad, I felt as if I was part of it, b) The ad made me feel connected to the burger shown in the ad, c) I felt as if I really had the burger shown in the ad, d) After I have seen the ad, I still felt as if I am seeing the ad.

2) *Consumer Affect* (ranked on a seven-point bipolar scale. This scale adapted from the PANAS scale (Watson, Clark, Tellegen, 1988). The scale items were Interested/Disinterested, Excited/Bored, Enthusiastic/Indifferent, Happy/Upset, Serene/Irritable).

3) *Purchase intentions* (a three item seven-point Likert scale; endpoints: strongly disagree to strongly agree)

4) Willingness-to-pay (Multiple choice question with options ranging from ‘less than \$1.99’ to ‘more than \$4.99’).

Demographic based details were collected at the end of the survey, along with qualifier questions (that is, if participants used YouTube and ate burgers).

## **Study 2 Results**

Study 2 t-test results reveal that ad engagement for side advertisements is statistically higher than for overlay advertisements ( $Mean_{Overlay}=2.59$ ,  $SD_{Overlay}=1.51$ ;  $Mean_{Side}=3.22$ ,  $SD_{Side}=1.57$ ;  $p=0.029$ ). Additionally, there are significant higher difference in negative affect (emotions) evoked by overlay advertisements than side advertisements ( $Mean_{Overlay}=4.62$ ,

$SD_{Overlay}=1.64$ ;  $Mean_{Side}=3.82$  ,  $SD_{Side}=1.58$ ;  $p=0.008$ ). Despite this, there were no significant differences in either purchase intentions or willingness to pay. Please review table 2 for a summary of study results.

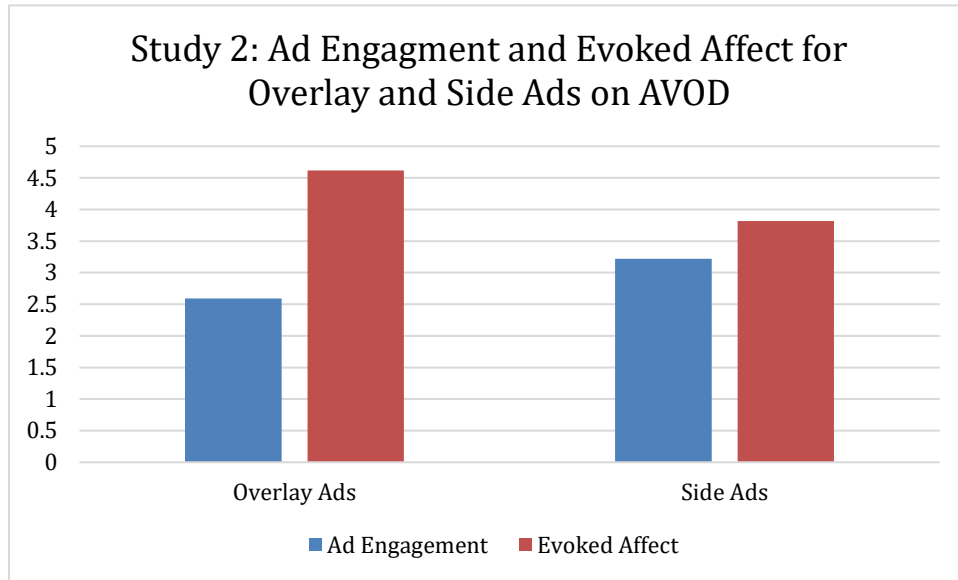


Figure 2: Ad Engagement and Evoked Affect for Overlay and Side Ads on AVOD

Dependent Variables	Overlay Ads Mean (SD)	Side Ads Mean (SD)	p value	t-test
Ad Engagement	2.59 (1.51)	3.22 (1.57)	0.029	t(116)=-2.210, p=.029
Evoked Affect	4.62 (1.64)	3.82 (1.58)	0.008	t(116)=2.677, p=.008
Purchase Intentions	3.78 (1.73)	3.90 (1.63)	0.579	t(116)=-0.412, p=0.579
Willingness to Pay	3.13 (1.17)	3.18 (1.27)	0.514	t(116)=-0.207, p=0.579

Table 2: Summary of Study 2 Results

## Study 2 Discussion

Study 2 shows that there is a clearer preference for side advertisements over overlay advertisements. The higher levels of ad engagement in side advertisements as well as lower

negative affect compared to overlay advertisements also reinforce the idea that consumers are less tolerant of advertisements they view as interfering with their viewing experience. Since consumers have to interact with the advertisement in order to dismiss it from the video (that is, by clicking on the close button), they are more likely to perceive these advertisements in a negative light, and desire to engage in processing with them less. Hence, a preference for side advertisements. This does not extend into aspects such as purchase intentions or willingness to pay, though these results may be a result of the item used in this study, rather than a reflection of the genuine feelings consumers had during this survey. It may also be possible that the nature of food item (which is a low-cost everyday purchase item “burger”) did not present a compelling case for the consumers to significantly influence their purchase intentions or the willingness-to-pay.

## **Discussion**

The results of both Study 1 and Study 2 lead to very interesting conclusions regarding consumer behavior on various streaming platforms. The first, and potentially most important, is that users have a high preference for digital print advertisements on AVOD platforms. Compared not only to SVOD platforms, but to video advertising on AVOD platforms, it is clear that users have a greater preference for this format when seeing advertisements online. This matches much of the information that has been provided, as consumers do not find videos that are potentially lengthy or unwatchable to be useful sources of information, while also enjoying a feeling of control when on these platforms, and digital print advertisements can offer them both aspects. Digital print ads can be opted out with a dismissal button or put onto an area where they are not as intrusive to the user’s experience, which explains why there is a clear preference for that type of advertising over video forms.

Study 2 reinforces this conclusion with the significant results that were found. In determining that respondents found side ads to be much more engaging than their overlay counterpart, the idea presented in prior studies that consumers prefer advertisement methods that allow for some semblance of control is confirmed. Not only that, but the higher mean in affect for overlay advertisements implies that they would be considered more intrusive to viewers than side ads are. This is important to note, as overlay advertisements interfere more directly with the user's viewing experience, and that reason also coincides with the idea that customers who have interruptions within their video viewings will not view the advertisement as favorably as they would an advertisement that is out of the way of the viewing experience while still being noticeable enough to be seen. However, this difference in advertising position did not seem to affect the willingness to buy from consumers, though that may be a potential limitation of the study conducted.

### **Conclusion**

The goal of this study was to gain insight into various aspects of consumer behavior when it comes to online streaming services. Understanding not only their choice of platform but how many prefer to be advertised to is incredibly important in ensuring that these products will be sold to the right audience in the right manner. The two studies that were conducted on combined total of over 200 participants were able to show the clear preference for digital print and side advertisements, as well as the intrusive feelings towards overlay advertisements for AVOD platforms. As a future marketer who is looking into the field of data analysis, such developments are interesting to witness and comprehend. As research into this field continues to grow and change, hopefully there will be more information like this available for businesses of all sizes to better market themselves online to consumers. With the rise of social media, and

events such as the Covid-19 pandemic expediting their usage, it is vital that now more than ever this research is conducted to better market in the online sphere.

### **Study Limitations and Future Direction**

While this study aimed to tackle some of the very obvious gaps within the studies conducted on online streaming media thus far, there are a few areas in which it was limited. The first study used only two example platforms as the experimental conditions. . In future studies, it would be valuable to analyze more AVOD platforms and SVOD platforms to corroborate our study results while also exploring if there are differences within the categories as well. Another limitation is with respect to showing study participants a low cost stimulus product (hamburger with fries) . This may have led to consumers already having a predetermined price point even before engaging with the advertisements. Future research may look into high cost (such as consumer durable goods) versus low cost (fast moving goods) products, or utilitarian versus hedonic products to see if the variance in such results is significant in any way. Finally, the online nature of the survey means that respondents would not be able to translate stimuli and survey questions as they would be able to had the studies been field studies in natural settings created in behavioral labs. Therefore, it is important to consider the differences in online and field studies when looking to conduct research in the future.

### **Research Implications**

The results of this research will serve to benefit various aspects of society. For businesses, better understanding how consumers react to advertisements, as well as what they prefer when seeing these advertisements, will allow them to better market their products in a way that will benefit both parties. These companies will now know what platforms consumers are



more willing to interact with advertisements on, as well as the best place to put them. Hence, companies will have a lower chance of losing potential consumer interest due to intrusive advertising. For consumers, they will now have advertisements that are better suited for their viewing preferences, as well as now acknowledging the importance of their voice in the advertising business. As a result, consumers may be more willing to interact with the marketing process, offering their voices to create greater systems for future advertising campaigns in the online world. Not only this, but this new information can be added to the growing number of studies being conducted to understand this subject. With the novelty in studying online streaming, it is important that studies like this serve as a starting point for future research.

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## Appendix

### 1. Study 1 Stimuli

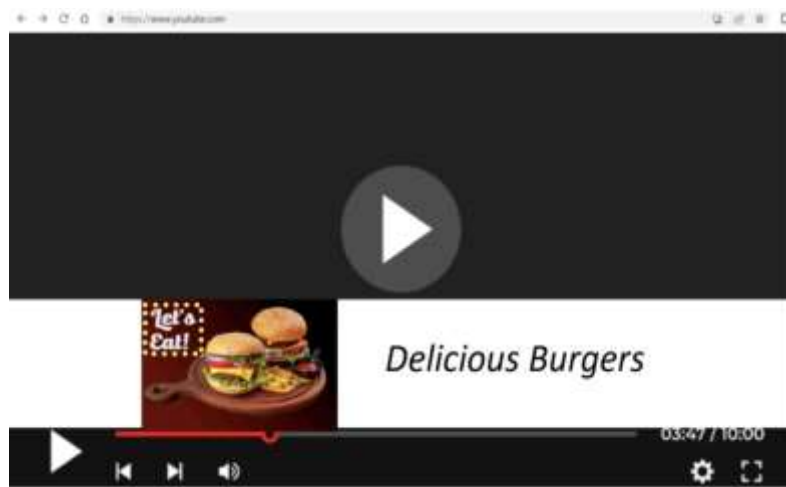


Study 1 Visual Stimuli

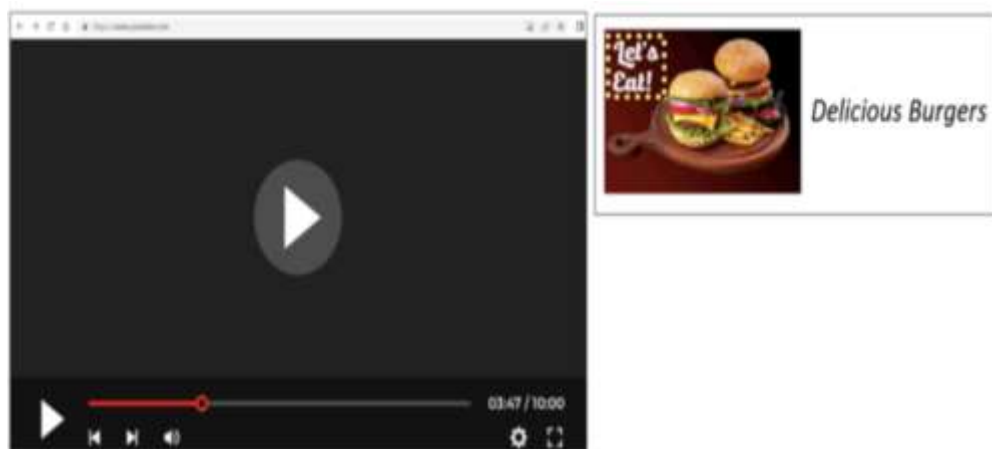


Study 1 Video Stimuli

## 2. Study 2 Stimuli



Study 2 Overlay Advertisement Stimuli



Study 2 Side Advertisement Stimuli