Pluto TV: A Model for Understanding the Sustainability of
Linear Television in the Digital Realm

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Abstract

Digital linear television replicates the tradition structure of cable and network television on one’s personal internet connected device—content is pre-programmed on a channel and runs on a 24-hour schedule. The purpose of this paper is to understand how the business model (content, platform structure, and revenue model) of digital linear platform like Pluto TV, can serve as an example of linear television’s sustainability. We’ve analyzed what the driving factors are that influence consumer choice when choosing to watch digital linear television over on-demand streaming content. Looking at Pluto TV as a case study enabled us to analyze something substantive by looking at the "recipe" of the platform and its billion-dollar success.

Results from a consumer survey were analyzed to understand what about Pluto TV is attractive from the consumer's perspective. In turn, insights were gathered as to why digital linear television is promising to advertisers and perhaps is a viable model for other streaming players, such as Netflix who places more emphasis on consumer choice and immediacy, to consider. To determine which populations of individuals Pluto TV appealed to most, a surveying of first-time and frequent Pluto TV users was performed and analyzed. Overall, there was no great disparity among age groups with regards to feelings about the platform. The main findings from this research revealed that a digital linear platform primarily appeals to parents of young children due to Pluto TV’s ability to specifically curate content tailored to children and easing parental concerns of their child being recommended inappropriate content by an algorithm.
Introduction

The current media landscape has evolved into a vast array of options for consuming content; but, somehow pre-programmed and scheduled content continues to elude the naysayers that are concerned about the practices of broadcast television are nearing extinction.iii Opportunities for advertising on a “digital linear” platform are demonstrating exponential growth and potential as evidenced by the stellar performance of companies like Pluto TV offering free, pre-programmed & scheduled content as a companion to their on-demand offerings.iii Digital linear television could be an incredibly viable and lucrative conduit for generating advertising revenue.

Through an analysis of the business model of Pluto TV, their content, platform structure, and revenue model, we will indicate how their success can serve as a prime example of linear television’s sustainability. Additionally, through qualitative surveying of consumers about their experience utilizing Pluto TV and their personal TV consumption habits. We will examine the driving factors that influence consumers choosing to watch digital linear television over on-demand content. Overall, Pluto TV will serve as a model for understanding the value proposition that the structure of linear television creates for both advertisers and consumers.

Historical Context

Historically, the word television meant something completely different than the term means to most today. Traditionally, television, network and cable, has followed a model that has come to be known as “linear television.” The term is coined from the way content is scheduled and programmed for broadcast— because time is 'linear,' content must compete for a time slot on the channel or network schedule.iv Moreover, linear television is often associated with the term “appointment television,” because of the way consumers typically make an appointment with their television to tune in to their favorite shows.v However, with the emergence of DVR and the more modern prevalence of subscription video-on-demand (SVOD), television has taken on a completely new meaning. Content no longer needs to compete for a time slot on a schedule. Instead, people can watch whatever they want, whenever they want it.vi

The recent emergence of digital linear TV looks a lot like traditional linear television: content is curated and scheduled for ‘live ’viewing on a channel that is airing 24/7. vii However, what differentiates digital linear from the traditional linear TV viewing experience is that pre-programmed, live-streamed channels can be watched “over the top” (OTT).viii In other words, content can be watched by bypassing a cable subscription you would normally get through a Multi-Channel Video Programming Distributor (MVPD) such as Verizon or AT&T.

Additionally, digital linear differs from what current virtual MVPDs, such as YouTube TV and Hulu Live TV, offer because of the structure and price point.ix Virtual MVPDs enable the consumer to stream traditional network channels such as NBC or CBS at a premium subscription price, similar to cable television.x On the other hand, digital linear platforms, such as Pluto TV and Tubi TV, stand out because their programming does not stream pre-existing channels that are already on-air— instead, the channels are originally curated by programmers. And what is the best
part of digital linear that differentiates it from cable? It's completely free, so long as you have internet.\textsuperscript{x}

\textit{Problems with the Current Streaming Model}

Analyzing the emergence of a digital linear platform also shows potential for solutions to address current issues with the existing SVOD model. Overall, because the current television streaming model consists of many streaming subscriptions and ad-supported services, each containing unique and exclusive content offerings, consumers are facing higher costs. Choice paralysis and subscription fees create undesirable circumstances for consumers of content where there is a tangible and psychological cost to the consumer, causing some to churn their subscriptions at a rate of 37% in the U.S.\textsuperscript{xi-xiii}

Additionally, in looking at streaming front-runner Netflix from a bearish perspective, one could argue that most of Netflix's subscriber growth and thus revenue growth has primarily been fueled by global expansion and diversification of its products. This proved devastating for the company after losing 200,000 subscribers and facing big earnings miss in Q1 of 2022. Netflix has been largely cash flow negative because of their massive amount of spending on content to keep people subscribed (except for 2020 when all production was halted, thus inhibiting their spending).\textsuperscript{xiv}

There exists a paradoxical relationship in which Netflix will need to rein in its content spending in the long run to improve its cash flows but could prove tricky since subscriber growth could slow (or even decline) if Netflix does not maintain a consistently fresh content library at a regular pace. This relationship is not ideal, which is why we’ve seen Netflix pulling back on content spending, raising prices, investing in gaming and merchandising, and even considering a cheaper, ad-supported tier for the first time in its history to create more sources of revenue.\textsuperscript{xv} A platform like Pluto TV, however, does not need to face the scrutiny or heavy reliance on subscriber base or churn rate. This thesis will provide insight as to why digital linear television is promising to advertisers and perhaps is a viable model for other streaming players, such as Netflix who places more emphasis on consumer choice, to consider.

\textit{Why Pluto TV Serves as a Foundational Model}

Understanding the consumer is always vital to the success and growth of any business model and this is the key to the sustainability of any digital platform. With $60 billion ad dollars currently in flux, examining Pluto TV's success and profitability provides a gauge of where those dollars may be heading.\textsuperscript{xvi} Pluto TV's profitability is tied to its ad revenue. Historically, the television network and most of Cable TV's revenue model is grounded in advertising and the commercial break. Advertisers are drawn to a particular network or channel because of the programming which attracts the audience.\textsuperscript{xvii} Subscription video-on-demand (SVOD) and broadband internet have disrupted the cable TV industry, now allowing consumers the option to “cut-the-cord,” or unsubscribe, from their cable subscription packages and instead choose exactly what streaming services they want to subscribe to, what they want to watch, and when they want to watch it.\textsuperscript{xviii} Overall, streaming video-on-demand services either with an SVOD and advertising video-on-
demand (AVOD) model have been driving consumers more and more to ditch their cable TV subscriptions, and thus losing out on the linear TV experience.

Pluto TV’s stance as a successful digital linear platform has its links to its vast array of linear channels. Firstly, after its acquisition by ViacomCBS (now Paramount) in 2019, the platform has been performing incredibly well. In the summer 2021, Pluto TV made headlines for surpassing its annual ad revenue milestone a year ahead of schedule.xix Additionally, Pluto TV is currently the leading free ad-supported streaming television (FAST) platform on the market with 64.4 global million monthly active users, as of December 2021, fueled by domestic and international expansion.xxxixxxi Secondly, Pluto TV is unique because it offers some live sports and local news coverage, in addition to airing mostly sports reruns, highlights, and other pre-recorded content.xxii Lastly, in light of Pluto TV’s recent success, the company has attributed its growth in audience and traction with advertisers to its expanding linear TV offerings, which include channels that are curated based on specific themes of content that is currently offered through Paramount’s broadcast networks.xxiii

All in all, the goal of this research is to understand and achieve greater insights as to what constitutes a successful future media platform for the stakeholders involved: the shareholders, the advertisers, and the consumers. The findings of this research will be useful to consider for those creating programming and content strategies in the television business. Depending on the format or structure of TV and the way it is programmed will determine the advertising/revenue model for the television company. If there is a lot of value in a digital linear platform, this could perhaps inform decisions made on behalf of streaming companies and the ways they structure and program their content, which will then translate into revenue growth.
**Research Methods**

With the emergence of digital linear TV platforms, this thesis will look at why a consumer would sacrifice their ability to choose what they want to watch and when. In other words, why would a consumer choose a linear TV viewing experience over video-on-demand as a conduit to their content? As a part of this research, the platform Pluto TV will act as a case study to understand what value a digital linear streaming service creates for the consumer.

**The Lack of Data Transparency in Streaming**

Overall, throughout preliminary research, there has emerged an overwhelming lack of transparency when it comes to data collection and tracking performance of these emerging FAST platforms. In particular, there have been challenges in determining a standardized measure for gauging the success of each platform. Services that are primarily driven by ad revenue and do not track sign-ups such as Pluto TV and Tubi TV track performance using the metric Million Active Users (MAUs). Other platforms such as Peacock TV utilize KPIs such as Monthly Active Accounts to track the success of their free platform.

A common trend among these services is that there lacks specificity as to what constitutes an “active” user or account.xxv An “active user” could range anywhere from someone who logs on to the platform for a mere 7 seconds, versus an individual who spends 7 hours watching content on the same platform. With such a vague KPI that places no emphasis on watch time, one will notice how misleading such a set of data can be for advertisers investing in these services. It is important to be somewhat skeptical of Pluto TV and other FAST platform performances based on these metrics alone and determine that one cannot rely on these measures of users to accurately assess the true performance of each platform. In fact, this issue is quite universal throughout the entertainment industry, and streaming data transparency continues to be a hotly debated topic.xxvi

Therefore, relying on a survey as a method of understanding Pluto TV’s performance is key to beginning to dissect its true appeal and reach to audiences.

**Survey Design**

A survey was utilized to understand what about the platform is attractive from the consumer's perspective and to understand where Pluto TV's audience is primarily derived from. Overall, insights on this analysis of Pluto TV and consumer response to the survey about the platform were used to help glean information about the following research questions and their corresponding hypotheses:

1) What are the factors that make Pluto TV a successful offering?

   - **Hypothesis:** The service is free, easy to use, and there is no sign-up process.

2) Who does a digital linear platform appeal to the most? (i.e. demographics, income-levels)

   - **Hypothesis:** The platform appeals to mid to low-income individuals, parents with small children, and older audiences who resonate with the live-TV experience.
3) Does choice paralysis influence the decisions made when choosing through what conduit to watch TV?
   - **Hypothesis:** People opt to watch live television for the sake of ease in not having to choose what to watch.

4) To what extent does digital linear TV attract audiences for local & nationwide news and sports content?
   - **Hypothesis:** Despite common belief, live news and sports is a not the driving factor that draws individuals into watching digital linear television.

5) What is attractive about digital linear programming and channel offerings that are enticing to audiences?
   - **Hypothesis:** There is added value from the creation of hyper-niche linear channels (character- or franchise-centric channels), giving advertisers more opportunity to have a direct path to certain groups of people.

This thesis will serve to answer whether digital linear television will continue to be viable as it reduces consumer fatigue when it comes to making choices about what to watch and is especially enticing because it is free. A lot of the opportunity in digital linear likely stems from low-income families, particularly with small children, who resort to lower-cost TV alternatives while also not having to worry about the content their children are watching. The need to narrow the field of age-appropriate content is based on the founder’s original vision, which was to create a platform where parents could turn on the TV for their children and not need to worry about what content was coming on next.\(^{xxvii}\)

All survey-takers were able to complete the survey on their individual computer devices. The survey was completed by those who have and haven’t used the platform before. Moreover, the survey has been constructed on Qualtrics with the Pluto TV platform embedded on certain pages and branches according to specific questions.

*Figure 1: Survey Design & Flow*
Survey Results & Discussion

(1) What are the Factors that Make Pluto TV a Successful Offering?

Overall, the first key point to note from the entire population of 203 survey takers was the average rankings of the various parameters determined from preliminary research that may or may not contribute to Pluto TV’s success (Figure 2). The results across all populations highlight a strong liking of the platform because it is free and lacks any barrier to watching content.

Figure 2. Average Likert scale rankings of different Pluto TV factors (1 = very unfavorable; 5 = very favorable)

Furthermore, hundreds of free response questions asking about favorable/unfavorable factors of the platform were gathered to gauge more specific reactions to the platform and determine other underlying qualitative trends.

Patterns have emerged from the free responses about additional factors of the platform those who experienced the platform for the first time enjoyed. The first underlying trend was comments regarding the user interface of the platform, specifically regarding its accessibility, “ease of access” and its “intuitive and easy to navigate” nature. Below are more free-response comments of reasons why individuals liked the platform:

“Accessibility on my phone, free and less commercials than cable tv”
“It was super intuitive, I found what I was looking for immediately.”

“The platform was user-friendly, and I liked that you could clearly see all the programming”

’Browsing through channels, stumbling upon a show I wouldn't have otherwise watched”

“Separation of channels into specific categories; responsive and fluid UI even when using on mobile web app”

Moreover, there were many consumer/respondent comments which discussed the familiarity of the platform as a part of the reasoning for their liking. The user interface was often cited as liked because of how it resembled a “menu/time slot viewing” format, “similar to [a] cable menu screen.” Another respondent indicated they “liked being able to scroll through the channels and see what is playing… just like normal TV.” These responses support the idea that individuals who enjoy watching Pluto TV are drawn to its familiarity. This continues to beg the question of its sustainability, however, since older populations are generally the ones who are primarily accustomed to this format of television. Yet, after averaging all user experience ratings, the findings from the survey indicate that there was no significant difference across age groups and overall feelings towards the platform.

**Figure 3.** Average User Experience Rating among age groups

<table>
<thead>
<tr>
<th>What is your age?</th>
<th>Average User Experience</th>
<th>N</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25 years old</td>
<td>3.2346</td>
<td>73</td>
<td>.57958</td>
</tr>
<tr>
<td>26-54 years old</td>
<td>3.3263</td>
<td>95</td>
<td>.60453</td>
</tr>
<tr>
<td>55+ years old</td>
<td>3.3393</td>
<td>35</td>
<td>.75645</td>
</tr>
<tr>
<td>Total</td>
<td>3.2956</td>
<td>203</td>
<td>.62308</td>
</tr>
</tbody>
</table>

Lastly, some comments from the same free response answers further support the lower ratings of the inability to pause content and advertisements on the platform. Still, individuals valued the platform because it was “beneficial for ambient watching” and had “Free movies— Spiderman: Far From Home was on and I watched it was pretty awesome.” However, these comments are met with other concerns about “watching a show mid-episode,” which is a feature that is unique to live viewing. More specific concerns about content will be explored in section (4) Content Categories, News, & Sports.
(2) Who Does a Digital Linear Platform Appeal to the Most?

Additionally, user experience factors were further broken down by fan/viewer information. From this perspective, on average, there appears a slight trend indicating that of the 8 pre-determined Pluto TV content factors, parents tend to favor more than other content being pre-programmed and selected for them, eliminating the choice factor (Figure 6). These results indicate why parents of young children could benefit from a digital linear platform.

Figure 6. Average Likert scale rankings of different Pluto TV factors by content category (1 = very unfavorable; 5 = very favorable)

To compare means between populations that indicated they were a parent of a child under the age of 12 versus those who did not, an independent samples t-test for equality of means was performed. It was observed that the mean difference between average Likert scale rating of content being pre-programmed and scheduled for them parents and non-parents was statistically significant at the .05 level (2-tailed). Overall, it was observed that pre-programmed content to parents of young children was approximately 20% more favorable compared to non-parents (Figure 7).

Figure 7. Group Statistics for Average Likert Scale Ratings of different Pluto TV factors: Parents vs. Non-Parents and independent t-test for Equality of Means results (Note: equal variances assumed)
<table>
<thead>
<tr>
<th>The number of advertisements</th>
<th>Parent</th>
<th>29</th>
<th>2.8621</th>
<th>1.21667</th>
</tr>
</thead>
<tbody>
<tr>
<td>The waiting time between episode or content</td>
<td>Non-parent</td>
<td>174</td>
<td>2.9080</td>
<td>.179</td>
</tr>
<tr>
<td>Parent</td>
<td>29</td>
<td>3.2069</td>
<td>1.14578</td>
<td></td>
</tr>
<tr>
<td>Content is pre-programmed and chosen for me</td>
<td>Non-parent</td>
<td>174</td>
<td>2.9655</td>
<td>.009*</td>
</tr>
<tr>
<td>Parent</td>
<td>29</td>
<td>3.5517</td>
<td>.9851</td>
<td></td>
</tr>
<tr>
<td>Content and channel offerings</td>
<td>Non-parent</td>
<td>174</td>
<td>3.3678</td>
<td>.054</td>
</tr>
<tr>
<td>Parent</td>
<td>29</td>
<td>3.7586</td>
<td>.95076</td>
<td></td>
</tr>
<tr>
<td>The inability to pause content</td>
<td>Non-parent</td>
<td>174</td>
<td>2.3563</td>
<td>.118</td>
</tr>
<tr>
<td>Free to watch</td>
<td>Parent</td>
<td>29</td>
<td>2.7241</td>
<td>1.22172</td>
</tr>
<tr>
<td>Non-parent</td>
<td>174</td>
<td>4.3678</td>
<td>.791</td>
<td>.87502</td>
</tr>
<tr>
<td>Parent</td>
<td>29</td>
<td>4.4138</td>
<td>.77998</td>
<td></td>
</tr>
<tr>
<td>The channel surfing experience (like traditional network/cable TV)</td>
<td>Non-parent</td>
<td>174</td>
<td>3.4195</td>
<td>157</td>
</tr>
<tr>
<td>No need to sign-up to watch</td>
<td>Parent</td>
<td>29</td>
<td>3.7241</td>
<td>.95978</td>
</tr>
<tr>
<td>Non-parent</td>
<td>174</td>
<td>4.1552</td>
<td>.285</td>
<td>1.04470</td>
</tr>
<tr>
<td>Parent</td>
<td>29</td>
<td>3.9310</td>
<td>1.03272</td>
<td></td>
</tr>
</tbody>
</table>

*Means difference is significant at the .05 level (2-tailed).

Significantly, based on the responses from the 29 parents of children under the age of 12, those who experience concerns about not having an awareness of the content their children are watching on streaming platforms or lack control over the shows recommended to their children had a stronger liking for Pluto TV on average. In fact, one individual specifically mentioned in their comments of why they liked the platform, “I liked what they chose for my kids,” which is important in an era when many parents face concerns about the types of content their children are watching.

Of the parents surveyed, 63% of parents claimed that they worry about the shows apps like YouTube and Netflix recommend to their child. According to a study done by Pew Research Center, more than half (53%) of the parents surveyed believed that YouTube, for instance, does an inadequate job at preventing children from watching inappropriate content. These statistics begin to reveal why factors such as pre-programmed content appeal to such a population (Figure 8). Pluto TV’s scheduling system is not algorithmic based, meaning each channel is curated and designed for a specific type of audience member by a programmer (see channel lineup in Exhibit B). Therefore, there is limited risk of a child being recommended inappropriate content on a whim.
These results provide an ample opening point for reference as programmers consider the ways in which they design their platforms for younger audiences and appeal to parents and begin to hint at potential opportunities for marketing a digital linear to a population of parents with children. However, there was a large sample size difference between those who indicated they were parents versus non-parents (29 versus 174 individuals). Additionally, in this survey, content categories were not independent from one another and may have created other sample bias.

(3) The Influence of Choice Paralysis

On average, of the 178 individuals who tested Pluto TV for the first time within the survey, those who agreed/strongly agreed that they enjoyed their experience using Pluto TV (a score of 4 or 5), on average also stated that they often become overwhelmed by the plethora of choices made available to them on streaming services, with an average a score of 3.55. On the other hand, those who did not enjoy their experience using the platform (a score of 1 or 2) on average were those who were less often overwhelmed by choices available to them on streaming services, with an average score of 2.88.

Although results could possibly be skewed due to varied sample size, these results may indicate a correlation between those who enjoy Pluto TV’s ability to eliminate some element of choice in the viewing process are in fact those who often feel overwhelmed by the thousands of choices made available to them on SVOD platforms. Because this data is ordinal, a non-parametric correlation test was utilized to further analyze the statistical significance of this result.

The results of Spearman’s correlation test revealed that a relationship exists between the enjoying the Pluto TV platform and feeling overwhelmed by choices available to one on streaming platforms, with a significance level of .003 and a Spearman’s rho correlation coefficient of .222
(Figure 9). Overall, this data suggests that choice paralysis is a factor in someone’s preference of the type of platform they watch: the more they become overwhelmed by choices, the more likely they will enjoy their experience using a digital linear platform.

**Figure 9.** Non-parametric correlation test determined a relationship between experiencing choice paralysis and Pluto TV viewing experience.

<table>
<thead>
<tr>
<th>Spearman's rho</th>
<th>Overall, I enjoyed my experience using Pluto TV.</th>
<th>I become overwhelmed by choices available to me on streaming services.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation Coefficient</td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td></td>
<td>1.000</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>N 178</td>
<td>178</td>
</tr>
<tr>
<td></td>
<td>Correlation Coefficient</td>
<td>.222**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>N 178</td>
<td>178</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

**4** Content Categories, News, & Sports

Important to note is how content is still seemingly not a driving factor for why people enjoy Pluto TV. When individuals were asked about their dislikes of the platform, complaints were primarily surrounding the amount of content options. Although it was determined that parents valued the platform for their children, other consumers did not value the content offerings for their personal viewing. In particular, one individual indicated they disliked the platform because, “There wasn’t really anything good on. Felt like a step backward for me and my television viewing.” Others indicated that, “Sometimes the content I watch is not confined to one genre, but I feel like Pluto just assumes you want to remain within one genre like comedy for example.” Overall, feelings of aversion towards content on the platform were overall a notable trend among free response comments, where individuals felt, “few options appealed to me as something I’d like to watch.”

Based on these responses, Pluto TV still needs to expand in its content offerings. Results from the survey indicated that on average, feelings towards the platform after experiencing specific genres of content of the individual’s liking was met with relative indifference, an average overall rating
of 2.98 for individuals who have used the platform before and 3.11 for those who tried it for the first time. Yet, often cited as a differentiating factor for Pluto TV is its ability to curate content that is niche and appeals to specific audiences. Internal data from Pluto TV could potentially reveal which genres of content on the platform attract the largest audiences, which could in turn be attractive to advertisers who make attempts to appeal to highly specific audiences. However, based on these survey results, the conclusions that can be drawn are limited. Next, results from the live news and sports content questionnaire will be accessed.

For sports content, it was found that there were also no significant differences across demographic groups regarding feelings towards the platform’s sports content offerings, with an average Likert rating of 3.23 reflecting feelings of indifference. However, what was observed was a divergence in ratings of the platform across different sports individuals regularly watch. According to Figure 12, of the 203 survey respondents, individuals who follow Boxing/WWE sports on average enjoyed their viewing experience more. A significance test was not performed for this data because the sample size of WWE fans was incredibly small. Still, this can point to how sports content may have a slight influence on an individual’s preference for the platform.

**Figure 12.** Average Likert Scale ratings of sports content on Pluto TV based on sports preference (1 = strongly disagree; 5 = strongly agree)

On average, of the 77 individuals who indicated they enjoy watching news content, individuals’ feelings towards the news content on the platform were relatively neutral, with an average overall rating of 3.28. The one difference that was observed was feelings towards news content on the platform according to age group. It appeared that older populations are more likely to use Pluto TV to get their local news and learn about current events.
**Figure 10.** Average Likert scale rankings from individuals who follow the news based on their experience watching Pluto TV news content across age groups (1 = strongly disagree; 5 = strongly agree)

To compare the three populations of age groups and their feelings towards news content on the platform, a One-Way Analysis of Variance was performed. The null hypothesis was that there is no difference in feeling towards the platform according to age group. After the test was performed, if was found there was no significant difference across ages and average feelings towards the platform’s news content offerings.

**Figure 11.** Comparing means of Average Likert scale rankings of news content across age groups — ANOVA Table

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would use Pluto TV to learn more about current events.</td>
<td>Between Groups (Combined)</td>
<td>3.195</td>
<td>2</td>
<td>1.597</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>98.052</td>
<td>74</td>
<td>1.325</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>101.247</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>I enjoy the Live TV news channel offerings.</td>
<td>Between Groups (Combined)</td>
<td>.680</td>
<td>2</td>
<td>.340</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>96.540</td>
<td>74</td>
<td>1.305</td>
</tr>
</tbody>
</table>
### Table 1

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>76</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would use Pluto TV to get my local news.</td>
<td>97.221</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Between Groups (Combined)</td>
<td>3.027</td>
</tr>
<tr>
<td>Within Groups</td>
<td>116.402</td>
<td>74</td>
</tr>
<tr>
<td>Total</td>
<td>119.429</td>
<td>76</td>
</tr>
</tbody>
</table>

Lastly, in the section where individuals could provide feedback about what they did not enjoy about the platform, news, and sports content was another theme of free responses. With regards to sports, respondents did not enjoy that there was, “limited access to all live sporting events” and how, “the soccer game I was watching was about 5 minutes behind the actual game.” Along the same lines, respondents voiced how news content was lacking because, “[Pluto TV] didn’t have a large selection of international news agencies (e.g., BBC, Aljazeera, etc…).” By being under the umbrella of parent company Paramount, Pluto TV can access a multitude of Paramount’s live sports and news offerings in the platform. Yet, these responses point to the areas in which Pluto TV lacks in sports and news coverage and demonstrate reasons why individuals would not choose Pluto TV as their primary choice of service to stream live events.

Still, the issues facing live sports and news coverage are not unique to Pluto TV. For instance, other platforms that have begun to implement live coverage of sports have been met with challenges such as streaming outages and delays in game playback. In order to adequately gauge the appeal of a digital linear platform for live sports and news coverage, resources should be invested in resolving these technical issues associated with streaming sports on OTT platforms.

Further evidence to support the lack of appeal of live event coverage on Pluto TV can also be found by looking at the primary reasons why those who used Pluto TV before tuned in to the service for the first time. Of the 25 individuals who have used Pluto TV before taking the survey, 48% used the platform because it was a free alternative to a premium service. Alternatively, 44% tuned in to watch a specific movie or TV show that only Pluto TV had, and only 8% found the service to watch a news or sporting event for free. All in all, the results from this data further point to the idea that Pluto TV’s attractiveness is not rooted in its live content offerings, and instead can be attributed to other factors such as platform design. Results may have been with a larger sample, however time and cost were limiting factors in this process. Nevertheless, what we noticed was that content offering and platform design seemed to be significant reasons for its success.
Conclusion & Further Research

This paper served to begin a study about how a digital linear platform can continue to provide solutions to consumer churn. By developing a platform that replicates the traditional form of linear television on one’s web browser, more opportunities emerge for advertisers to buy time on channels that air 24/7. However, there are additional concerns developers must consider if this platform truly appeals mostly to parents of young children. Because of the challenges associated with acquiring advertising for children’s programming, programmers will further weigh the costs and benefits of marketing a digital linear platform to parents of young children. For example, consideration should be given to advertising to parents of children since there are many FTC regulations in place that make it very difficult for advertisers to purchase ad spots on children’s channels. Regulations could make this a potentially cumbersome financial jumping point for Pluto TV and other platforms with a similar model.

Further research may also delve into ideas regarding the social implications of how a platform that restricts choice for children could potentially have positive effects on their mental wellbeing. For instance, in an era when social media teaches young people instant gratification of information and embraces short-form content, a digital linear platform could reintroduce the traditional model of linear television and patience through commercial viewing into young people’s lives.

Although there was no indication of Pluto TV appealing to different demographic age groups, Pluto TV’s platform design has demonstrated potential for creating a platform that reduces consumer choice fatigue and introduces a solution to parental concerns over managing the content their children are watching. Another interesting approach to expand on this project would be to create demographic and psychographic portraits of individuals under similar daily/working conditions to paint a picture of the type of individuals who would watch a digital linear platform. All in all, this thesis functioned to prove that by developing a platform with good content and great design, streaming services can help reduce churn rates by increasing their appeal to audiences who enjoy a familiar platform that is pre-programmed and operates on a schedule.
Exhibits

Exhibit A: Pluto TV Interface

Exhibit B: Pluto TV Channel Guides

Source: https://www.viacomcbspressexpress.com/pluto-tv/
Source: https://www.viacomcbspressexpress.com/pluto-tv/channel-guide
Exhibit C: Survey

Introduction

This survey serves to understand the driving factors that influence consumers when choosing to watch digital linear television over on-demand content and the ways in which digital linear television could be an incredibly viable and lucrative conduit for generating advertising revenue.

Overall, the streaming service Pluto TV will serve as a model for understanding the value proposition that the structure of linear television creates for both advertisers and consumers.

Please make note of the following definitions:

**Digital linear Television:** content is pre-selected and scheduled for ‘live ’viewing on a channel that is airing 24/7. Digital linear television, like Pluto TV, can be watched on any internet connected device.

**Traditional Linear Television:** Think of cable/network television. Content is scheduled and programmed for broadcast— because time is ‘linear, ‘content must compete for a time slot on the channel or network schedule.

Current Knowledge of Pluto TV

- Are you familiar with the streaming service Pluto TV?
  - Yes
  - No

- Have you ever used the service? *
  - Yes
  - No

  *Note: the survey will diverge dependent on this answer

Fan Information

- Select all the option(s) that most describe you.**
  
  I am a sports fan.
  I like to follow the news.
  I am a parent with at least one child under the age of 12.
  I enjoy content franchises or a specific genre/style of content (i.e., James Bond, Star Trek, horror, game shows, anime, etc.)
I am a casual or infrequent TV watcher.

- "Note: the survey will diverge dependent on this answer. This will allow individuals to answer questions or test the platform according to their interests, and to avoid bias (ex: a person who does not like sports will likely answer the sports-centric questions with some hostility, thus skewing the answers.)

If answered “No” to “Have you ever used the service?”: survey respondents will be presented with the Platform embedded in the survey to test out Pluto TV according to their response to the fan information content question.

Introduction to the platform

- Refer to the embedded Pluto TV app below. You will be responding to questions while interacting with the platform as you continue throughout the survey.
- Please take a minute to browse through the app and explore the content that interests you.

(Sports Content)
- Because you indicated you are a sports fan, please respond to the following:
- Which sport(s) do you follow regularly? (Select all that apply)
  
  - Baseball
  - Basketball
  - American Football
  - Hockey
  - Soccer
  - NASCAR
  - Boxing/WWE
  - Tennis
  - Other

- Navigate to the sports content category and browse through the sports channel offerings.

- Rate the extent to which you agree with the following statements about watching sports content on Pluto TV. (1-7; 7 being strongly agree)
  - I would use Pluto TV to watch my favorite live sports.
  - I would use Pluto TV to watch Sports Highlights.
  - I enjoyed my sports viewing experience.
**Children’s Content**

- Because you indicated you have a child or children under the age of 12, please respond to the following:

- What platforms do you currently allow your child to watch?
  
  - Netflix Kids
  - Cable TV kids’ channels (i.e. Nickelodeon, Disney Channel, etc.)
  - YouTube Kids
  - YouTube
  
  None - I don't allow my child to watch TV.
  
  Other

- If other, please specify:
  
  - ________________

- Select any concerns you have for the content your child is watching.
  
  - I don't know what my child is watching, or I lack control over the content they watch.
  - I worry about the shows apps like YouTube or Netflix recommends my child.
  - I worry the content they are watching is not educational.
  
  Other
  
  I have no concerns.

- If other, please specify:
  
  - ________________

- Navigate to the kids’ section of the Pluto TV app and browse the selections.
  
  *(Embedded Pluto app here)*

- Rate the extent to which you agree with the following statements about children’s content on Pluto TV. (1-7; 7 being strongly agree)
  
  - I would feel comfortable with my child watching Pluto TV.
  - I like that the children's content is pre-selected and programmed for my child.
  - I enjoy not having to worry about the content my child is watching.
  - I would rather have my child watch Pluto TV instead of other platforms (ex. YouTube Kids.).

**News Content**

- Because you indicated you like to follow the news, please respond to the following:
- Navigate to the news content category and browse through the news channel offerings.  
  (Embedded Pluto app here)

- Rate the extent to which you agree with the following statement about watching news content on Pluto TV. (1-7; 7 being strongly agree)
  - I would use Pluto TV to learn more about current events.
  - I would use Pluto TV to get my local news.
  - I enjoy the Live TV news channel offerings.

**Content Franchises & Genres**

- Because you indicated you enjoy content franchises or a specific genre/style of content, please respond to the following:

- Navigate to the tab that says "featured." Here you can jump between different content categories. Choose one category that appeals to you most. Then, navigate to a channel.  
  (Embedded Pluto app here)

- What content category did you select?
  - ________________

- Rate the extent to which you agree with the following statement about watching your favorite content on Pluto TV. (1-7; 7 being strongly agree)
  - I would use Pluto TV to binge or delve into my favorite genre or content franchise.
  - I like that the content I enjoy watching is chosen for me on Pluto TV.
  - I enjoy that the content I like is consolidated and located on one channel.

User Experience

  (Embedded Pluto app for reference here)

- Rate each of the following aspects according to what you overall find favorable/unfavorable about the digital linear Live-TV experience. (1-7; 7 being very favorable)
  - The number of advertisements
  - The waiting time between episode or content
  - Content is pre-programmed and chosen for me
  - Content and channel offerings
  - The inability to pause content
  - Free to watch
  - Channel surfing experience like traditional network/cable TV
  - No need to sign-up to watch

- Are there any other features you liked about the platform that you would like to mention?
  - ________________
- Are there any other features you disliked about the platform that you would like to mention?
  - ____________________

Streaming Preferences

- Rate the extent to which you agree with the following statements. (1-7; 7 being strongly agree)
  - Overall, I enjoyed my experience using Pluto TV.
  - I prefer the on-demand experience more than the Live-TV channel surfing experience.
  - I prefer Pluto TV’s viewing interface to a traditional cable/network television experience.
  - I would opt to watch linear TV on my computer instead of streaming on-demand content because content is pre-programmed and scheduled for me.

*If answered “Yes” to “Have you ever used the service?”: survey respondent will answer to questions according to their response to the fan information content question and previous experience using the platform.

Pluto TV Usage

- Because you have used Pluto TV before, please respond to the following questions based on your experiences using the platform:

- Where have you watched Pluto TV?
  - On my Smart TV/Smart stick
  - On the Pluto TV app
  - On my browser/computer

- Why did you use Pluto TV for the first time?
  - For a unique movie or show that only Pluto TV had
  - It was a free alternative to a premium service
  - To follow a news event
  - To follow a sporting event
  - For their children’s content

- How frequently do you use Pluto TV? (on a scale from 1-7, 7 being very frequently)

**Sports Content

- Because you indicated you are a sports fan, please respond to the following:
- Which sport(s) do you follow regularly? (Select all that apply)
  Baseball
  Basketball
  American Football
  Hockey
  Soccer
  NASCAR
  Boxing/WWE
  Tennis
  Other

- Rate the extent to which you agree with the following statements about watching sports content on Pluto TV. (1-7; 7 being strongly agree)
  • I use Pluto TV to watch live sports.
  • I use Pluto TV to watch Sports Highlights
  • I use Pluto TV as my primary source for sports watching.

**Children’s Content**

- Because you indicated you have a child or children under the age of 12, please respond to the following:

- What platforms do you currently allow your child to watch?
  Netflix Kids
  Cable TV kids’ channels (i.e. Nickleodeon, Disney Channel, etc.)
  YouTube Kids
  YouTube
  None - I don't allow my child to watch TV.
  Other

- If other, please specify.
  • __________________

- Select any concerns you have for the content your child is watching.
  I don't know what my child is watching, or I lack control over the content they watch.
  I worry about the shows apps like YouTube or Netflix recommends my child.
  I worry the content they are watching is not educational.
  Other
I have no concerns.

- If other, please specify.
  • ____________________

- Rate the extent to which you agree with the following statements. (1-7; 7 being strongly agree)
  • I am comfortable with my child watching Pluto TV.
  • I like that the children's content is pre-selected and pre-programmed for my child.
  • I enjoy not having to choose the content my child is watching.
  • I prefer having my child watch Pluto TV instead of other platforms (ex. YouTube Kids.).

**News Content**

- Because you indicated you like to follow the news, please respond to the following:

- Rate the extent to which you agree with the following statement about watching news content on Pluto TV. (1-7; 7 being strongly agree)
  • I use Pluto TV to learn more about current events.
  • I use Pluto TV to get my local news.
  • I enjoy the Live TV news channel offerings.

**Content Franchises**

- Because you indicated you enjoy content franchises or a specific genre/style of content, please respond to the following:

- Is there a content category you primarily like to watch on Pluto TV?
  • ____________________

- Rate the extent to which you agree with the following statement about watching your favorite content on Pluto TV. (1-7; 7 being strongly agree)
  • I use Pluto TV to binge or delve into my favorite genre or content franchise.
  • I like that the content I enjoy watching is chosen for me on Pluto TV.
  • I enjoy that the content I like is consolidated and located on one channel.

*User Experience*

- Rate each of the following aspects according to what you overall find favorable/unfavorable about the digital linear Live-TV experience. (1-7; 7 being very favorable)
  • The number of advertisements
  • The waiting time between episode or content
  • Content is pre-programmed and chosen for me
• Content and channel Offerings
• The inability to pause content
• Free to watch
• Channel surfing experience like traditional network/cable TV
• No need to sign-up to watch

- Are there any other features you *like* about the platform that you would like to mention?
  • __________________

- Are there any other features you *dislike* about the platform that you would like to mention?
  • __________________

*Streaming Preferences*

- Rate the extent to which you agree with the following statements. (1-7; 7 being strongly agree)
  • I prefer the on-demand experience more than the Live-TV channel surfing experience.
  • I prefer Pluto TV’s viewing interface to a traditional cable/network television experience.
  • In general, I opt to watch linear TV on my computer instead of streaming on-demand content because content is pre-programmed and scheduled for me.

____________________________________

All survey-takers will be presented with the following questions at the end of the survey.

*Current Streaming Service Usage*

- Which subscription video on demand services do you currently subscribe to? (select all that apply)
  Amazon Prime Video
  Netflix
  Hulu
  HBO Max
  Peacock
  Apple TV+
  Paramount+
  Disney+
  Other

- Respond to the following statements with the extent of how frequently you experience the following: (on a scale from 1 – 7; 7 being frequently)
• I spend a lot of time finding what to watch.
• I become overwhelmed by choices available to me on streaming services.

- Approximately how much do you currently spend in total on streaming services every month?
  • Select on a scale of $0 - $100+

- Do you have a cable television subscription?
  o Yes
  o No
  o I use a cable alternative (i.e. YouTube TV, Hulu + Live TV, etc.)

- How do you primarily watch your content?
  o On my television / Smart TV / Smart stick
  o On my laptop / computer
  o On my phone / mobile device

Demographics

- What is your age?
  o 15-25 years old
  o 25-55 years old
  o 55+ years old

- What is your gender?
  o Male
  o Female
  o Non-binary / third gender
  o Prefer not to say

- What is your ethnicity?
  o Caucasian
  o African American
  o Latino or Hispanic
  o Asian
  o Native American
  o Native Hawaiian or Pacific Islander
  o Two or more
  o Other/unknown
  o Prefer not to say

- What is the highest degree of education you have completed?
  o Some High School
  o High School
  o Bachelor’s Degree
  o Master’s Degree
- What is your current employment status?
  - Employment
  - Unemployed
  - Student

- What is your total household income?
  - Less than $25,000
  - $25,000 - $34,999
  - $35,000 - $49,999
  - $50,000 - $74,999
  - $75,000 - $99,999
  - $100,000 - $149,999
  - More than $150,000

-- End of survey--
Endnotes


iv Hanne Bruun, Re-Scheduling Television In The Digital Era (Routledge Focus, 2020).


ix Homonoff, “Will ‘Digital Linear ’Be The Foundation Of Connected TV?”

x Ibid.

xi Ibid.


xvii Lieberman and Esgate, The Definitive Guide To Entertainment Marketing: Bringing the Moguls, the Media, and the Magic to the World.

xviii Ibid.

xix Hayes, “Pluto TV Reaches $1 Billion Annual Revenue Milestone A Year Ahead Of Schedule.”

MediaVillage.


Hayes, “Pluto TV Reaches $1 Billion Annual Revenue Milestone A Year Ahead Of Schedule.”


