IMPLICATIONS OF COVID-19 ON CABLE TV AND STREAMING BUSINESS

Reimagining the entertainment value chain and developing a differentiated customer management strategy by combining artificial intelligence and behavioral science

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As anxiety and stress due to the unforeseen outbreak of COVID-19 continue to aggravate, governments and organizations across the globe are falling behind at the moment, as they are left imagining about the right measures/ strategies. This gap is expected to further widen at least over the next few months before the world could reach a stage of catch-up. As is the case with any pandemic, some industries are already hit hard (e.g. retail, transportation and travel) while others could arguably benefit from it (e.g. telecom, broadband, entertainment). The economic implications, either positive or negative, on the entertainment industry may sound insignificant in comparison to threat the virus poses to human life around the world. Nevertheless, it could have a long-lasting impact on the livelihood of millions of people who are associated with the creation or distribution of movies, music, sports, arts, and much more. Initial estimates suggest that 120,000 people are already out of work in Hollywood, and another 50,000 in the UK entertainment industry could potentially lose their jobs.

At first thought, it is natural to assume that mandatory quarantine, work from home and self-isolation measures would benefit companies in cable TV (e.g. AT&T, Comcast, Sky, Virgin Media) and streaming business (e.g. Netflix, Prime, Disney+, Now Tv). This is, of course, based on the assumption that subscribers will have more time at their disposal and that some of it would convert into increased viewing hours leading to lower churn (early results show an upswing of a massive 60% in the amount of content watched in the US). While it would certainly hold in the short-term, implications in the long-term will be complicated – driven strongly by how providers adapt to changes in customer behavior. The suspicion is because as economic hardship of pandemic starts trickling down, customers will be driven to let go of their discretionary spending with entertainment budget most likely be a part of that cut. Now, let's unpack this to understand areas of business that will be impacted and their respective guiding principles.

Implications on entertainment value chain

Creation

- Content has always been the key mainstay to anchor customer engagement and thereby prevent churn, so the sudden halt to ongoing content creation across the world has thrown the industry into flux. Remember, this is not the job that could be completed remotely; you need people on the ground. Movie productions are getting cancelled/postponed everywhere including China, India, Europe and the US, and so are the sporting events with Wimbledon 2020, Euro 2020 and Tokyo 2020 being the most high-profile events getting cancelled/ declaring postponement by a year.
- As viewing hours hit an all-time high for the subscribers, negative sentiments and thin choice of new relevant content across platforms will be at its peak. To keep refreshing the content library, providers will need to reimagine programming and scheduling decisions quickly. E.g., the frequency of release of episodes of a TV series will have to be phased out to suitably cover a lean period of restricted new content supply. Some content, especially movies, getting streamed ahead of the planned schedule, slipping in repeat content more than usual, etc.
- Bold decisions from the providers (an example) - In an unprecedented move, NBCUniversal decided to break the theatrical window. It announced that it would make some upcoming movies available digitally the same day they are released in movie theatres that would continue to be open. Some of the films like The Hunt, The Invisible Man and Emma, are now available for on-demand viewing along with their recent theatre release and Trolls World Tour is set to be the next one which is slated for April 10 release.

Acquisition

- While an increase in demand is usually a great scenario for the entire industry and increases subscribers primarily for all providers, but not during the current crisis. As the period of isolation prolongs, the content library from individual preferences standpoint will start getting exhausted, leading subscribers to look for newer options. That, coupled with already high penetration percentage, will leave little room for established players to increase revenue and hands smaller/regional players an advantage to spike their acquisition rate much faster. E.g., in the US, 87% of paid streaming users already hold a Netflix subscription, whereas numbers for Prime and Hulu are 52% and 41%, respectively. Also, services like Disney+, HBO Max, Peacock, and Quibi (upcoming) could benefit more from the unexpectedly high demand for newer content alternatives.

- Assuming an economic downturn in a longer-term, the surge in immediate acquisition rate is likely to be offset by an incremental churn rate at a later stage. This is because stretch in the immediate entertainment budget and financial distress will converge at some point in the future. Once the focus shifts from acquisition to retention, it will be interesting to understand the choices subscribers make and which connections they decide to cancel. This could potentially expedite industry consolidation with partnership offerings.

Distribution

- A surge in viewing is breaking the internet globally, and to manage this network congestion, governments have started asking providers for a reduction in bit rates of streaming. E.g. Netflix and YouTube in Europe, acting on the ask of the European Union, had to reduce streaming quality from high-definition to standard-definition. The likely reduction of traffic on the respective ISP's network due to this move will be around 25%. The subscribers can still opt-in for the high-definition video quality, but by default, they will be viewing the reduced quality. YouTube and Disney+ have already confirmed to implement this in all markets, with many other providers expected to follow suit shortly.
- Many providers are in a tricky situation as their ever-dependable programming asset - live sports, the driver of high-cost subscriptions has suddenly disappeared. Sports forms the crux of the package around which several other channels/packages are bundled. To prevent customers from running into the "value for money," dilemma, providers like Sky, Virgin Media and BT have introduced flexibility to pause sports package until the pandemic eases. The move will hurt revenue significantly in the short term but should reflect in increased customer loyalty and trust over the long term. A glimpse of what goes into preparing a healthy sports offering: Sky Sports shelled out $1.63 billion per season - or $12.7 million per game – for the current English Premier League deal, with BT Sport paying $404 million per season – $12.6 million per game.
- In addition to subscription revenues, advertising-income is also expected to tumble. Usually, high viewing, as is the current case, makes for an excellent platform for advertising. However, marketing spend in many industries is being cut drastically, especially in travel, hospitality, and retail. The impact is already being observed in the stock prices of many advertising agencies including WPP, Omnicom and Interpublic. The drop in ad revenues will leave broadcasters with lower budgets, limiting their ability to invest in content creation.

Consumption

- Being stuck indoors has signaled an expansion in customers' viewing choices. Catering to the shift BBC has started offering its UK customers more content on education, fitness, religion and cooking recipes. The same could be expected from other government-run/sponsored channels of various countries where the content would be less fancy and focuses on the wellbeing of subscribers, the nation's culture and history, mythology, etc. Another example of increased appetite is the content around pandemic itself - Netflix's documentary "Pandemic: How to Prevent an Outbreak." It has become one of the most popular searches on the platform during the last month, after it had initially failed to garner much interest in the month of its release (January 20).

- Other expected changes in viewing habits include an increase in demand being primarily driven by the younger audience due to school/college closures, multifold increase in time spent in watching news telecasts (up to 3X in countries like China and Spain), and significant spike in daytime viewing.

Though every major economy around the world has announced a range of financial packages to help people and industries withstand the impact of the pandemic, there's little doubt that many industries will suffer deeply till the time it lasts and possibly for a few years after.

Refining AI frameworks in times of unprecedented change and uncertainty

With these disruptions unfolding, it is imperative for organizations to take a prudent and well-informed approach towards customer decisions based on data and analytics. Artificial intelligence, machine learning, and most of the other analytical models provide insights based on what it sees in recent historical data. However, unprecedented pandemic events get rarely captured in that time frame. Lack of data on such events is likely to prove to be a major challenge for analysts and data scientists in designing the frameworks.

However, with some innovation, flexibility, and planning, organizations can refine AI-driven strategies to improve customer experience, address business challenges across the value chain, and gain competitive advantage. This process can be initiated with a few fundamental design questions:

1. Which AI-driven use cases are most critical to the organization?

Prioritization: It is critical to assess the business impact of each use case and modeling frameworks driving those. It will help identify a list of top-priority use cases which may need to be monitored and refined in these changing scenarios. E.g., accurate forecasting models driving strategic decisions like customer retention or revenue planning will have to be improved to enable the budgetary plan of cable TV and streaming business.

2. How sensitive are AI frameworks to the extreme changes in customer behavior and industry trends?

Scenario analysis: For important use cases, one of the starting points can be the analysis of events and understanding different scenarios that can arise. It starts with the identification of model features likely to get impacted and respective scenario planning for a spectrum of changes (optimistic, pessimistic, and business-as-usual) they may undergo - evaluating movement in individual forecast outcomes.

3. How can the impact of such events be incorporated into existing and future AI frameworks?

Effective model management: In AI-driven organizations, where hundreds of models get developed and deployed, management and monitoring of the models become very important. It is more applicable to real-time models where the acceptable downtime is lesser compared to models running on weekly/monthly refreshes. With ongoing monitoring, analytics teams can deploy solutions more efficiently and have fall-back options should one approach not work. This will allow minimal downtime and reduce the impact on business. E.g. deployment of robust validation frameworks and alert-mechanisms to notify the analytics team of poor model performance can help quicker and more efficient turnarounds in areas where the performances are sub-optimal.

Incorporating rare high-impact events into modeling frameworks: Events like COVID-19 are extreme and the rarest of circumstances, severely disrupting the way customers interact and perceive their environment. Whether it is product upgrades, new subscriptions, or viewership patterns, changes are likely to be observed across the majority of the KPI's. Thus, it is necessary to have robust yet flexible modeling frameworks in place which can account for these events. One such approach is described below:

Creating proxy features: Features designed on historical events, which mimic a similar impact on customer behavior, may be used to shadow the current events. E.g. in Europe, we observed:

- During the Beast from the East phenomena in 2018, viewership had increased by 12% in Week-9.
- A similar trend is observed during current COVID-situation, a 14% increase in viewership in Week-12 as compared to the average of the previous two years.

The similarity between the two events stems from the fact that in both cases, people were forced to remain confined at home.

Integrating a behavioral science perspective to understand and cater to customers' needs

An understanding of customers' emotions from a behavioral science lens, within the context of a pandemic, where people are homebound, where people are experiencing emotions such as fear, anxiety and loneliness, is key to understand the related action tendencies of behavior. Here are a few behavioral concepts that could help organizations respond to such need-state:

1. **Customers are experiencing emotions of anxiety, stemming from the high amount of uncertainty.**

   Anxiety makes one crave what is familiar and safe, as it helps counter the feelings of uncertainty, even if from a source that is unrelated—resulting in behaviors on the content platform, where a person is likely to go back to shows that they have previously enjoyed.

   - Relaunching old content, highlighting old favorites. E.g. Cue re-watching old comedies, shows and movies that people have grown up with/seen in the past, where they are already familiar of the outcomes, giving people a sense of comfort and sense of control.

2. **Lockdown is creating a feeling of isolation and loneliness.**

   Frame organization's position to recognize and empathize with the emotion of loneliness towards bridging the void.

   - Creating social viewing in an isolated context addresses the feeling of loneliness and the ability to physically connect with people. Dialling-up sharing/commenting/recommending would create some socialness to the rather isolated lives. E.g. Framing offers that help a group of people get a better deal so they can be connected.

3. **In an unprecedented situation that no one has imagined, customers are experiencing extreme uncertainty.**

   It is a global shock, and hence, people might seek content that creates "preparedness" or visibility into the worst-case scenarios.

   - Allow audiences to live through the end of days vicariously. It's a form of emergency preparedness for the mind, rendering thinkable the unthinkable and theorizing where the average person's place in all of it might be. E.g., curating a set of "end of the world" movies.

4. **Time has lost its relevance and place in people's days currently.**

   Position content towards "productivity"/"learning" would help make time spent on watching content not "wasted" but meaningful, e.g., curating a set of documentaries and biopics, informative content.

To conclude, providers need to strategize for both demand-side changes (customer behavior, price elasticity, etc.) and supply-side disruptions (content delivery and costs, bundling, distribution, etc.). However, this is still an early assessment and would require ongoing monitoring of pandemic's short and long-term ripple effect as the *new normal* takes form.

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