

An Analysis of the Impact of Broadcasting Television: Introduction of Personalised Content Using Streaming Video: With Reference to Indian Society

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Abstract

Every decade has demonstrated the increase in the impact of broadcasting television. The introduction of personalised content using streaming video has, however, been on the increase for the last five years. And the rate of increase in its impact is more overwhelming than what the general television has achieved over many decades. Netflix has indeed been a giant in personalised streaming videos. This has also piqued the interest of other platforms that have now started streaming personalised videos. The world has evolved into a global village where personalised content in streaming has now overwhelmed the conventional content of the broadcast. This paper reviews the impact created by personalised content through streaming, especially in the last five years. The paper also tries to highlight how streaming videos have overtaken the conventional broadcast to create a new order of the day. The highlight also lays emphasis on personalisation, its classifications, viewer access choices, easy access to streaming, personalised recommendations and all other aspects that have transformed the landscape of streaming.

Keywords: Conventional Broadcast; Digital Media Personalised Videos; Implicit Personalisation; Explicit Personalisation; Transformed Landscape; Impact.

1. Introduction

The advent of digital media is the biggest paradigm in the history of broadcast [18]. Conventional broadcast like radio definitely deserves their due for offering the viewers better choices than what they had enjoyed through print media.

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It is an axiomatic truth that the world has welcomed every paradigm, be it in the field of politics, education, or media. This paper reviews how personalised streaming has created an overwhelming impact on conventional broadcast and also the digital media of its early years. A clear understanding of conventional broadcast, digital media of the early years and the current trend of personalised streaming are quite important to appreciate this analysis.

1.1 Conventional Broadcast

Many decades ago, television was seen as the harbinger ushering in a new era of broadcast [21]. A shift from the print media and the over-dependence on the radio was certainly needed. And the television broadcast bowled the masses over with its news telecast, informative and enriching talk shows and programs on entertainment. Soon television was branded as the broadcast media. After the sixties and seventies, television became a conventional media. It simply became synonymous with the phrase 'conventional broadcast' [20].

1.2 Changing Times and the Advent of Multiple Broadcasts

It is axiomatic that broadcasts have their shelf lives. With the advent of the eighties and nineties, conventional television broadcasts were beginning to look jaded with their generalised contents [20]. The developed countries realised it earlier than the developing countries did. The changing landscape of choices meant that there ought to be choices for different broadcasters [3]. And the rest is history. Multiple broadcasters started staking their claims to operate broadcasts. And these broadcasts left the viewers with the choice of watching the broadcasts they liked. However, even at this point in time, personalised streaming was yet to arrive! [15]

1.3 Multiple Television Channels Post Liberalisation in India

In 1991, India's economy was liberalised. The governmental monopoly on businesses ceased! This applied to the broadcast industry, too. A substantial number of private broadcasters started operating broadcasts. These broadcasts provided the masses with the liberty of choosing their broadcasters from the comfort of their living rooms. Yet, all these broadcasts were still under the nomenclature of 'conventional broadcasts or rather non-personalised streaming!

2 Digital Media

The launch of video streaming platforms like YouTube could be seen as the beginning of the personalised streaming revolution waiting to happen [2]. The social media platforms and their luxury of permitting individuals to post them still and moving visuals need a mention here. The digital media streamed on social media platforms could indeed be termed as a 'prelude' to the personalised streaming that would soon overwhelm the world [9]. All social media platforms now have an algorithm to detect user activities and make suggestions based on them. Does this qualify as 'personalised streaming'? An objective analysis shall reveal that it is indeed not 'personalised streaming' in the complete sense of the phrase! Yet there is no denying the fact that digital social media platforms are truly the prelude to the 'personalised streaming' that we enjoy today!

2.1 Personalised Video Streaming

Personalised video streaming is the offshoot of 'over the top' (OTT) video services. Personalisation, in simple words, could be described as the production or display of visual content that caters to the requirements or tastes of individual viewers[4]. Personalised video streaming, besides offering the widest of viewing choices, also works on an algorithm that detects viewer activities/choices and makes recommendations every time a streaming service is switched on [25]. However, the personalisation experience of a viewer deserves more illustration as such an experience can be both implicit and explicit. The algorithm of streaming platforms collects explicit and implicit user feedback.

2.1.1 Explicit User Feedback

In explicit user feedback, a viewer may like content and record his response through a 'like' or a 'thumbs up'. The streaming services now clearly understand that a certain viewer enjoys the content, and he or she may like to have a similar suggestion or recommendation in future! [8].

2.1.2 Implicit User Feedback

In implicit feedback, a user may have watched a fantasy thriller like 'Bahubali' or some popular series several times. The algorithm of streaming services will now record this viewing behaviour and make recommendations of similar kinds in future.

2.2 The One-to-one Experience

Basically, personalisation refers to a 'one-to-one' experience. Streaming broadcasters use a user's implicit and explicit experience to deliver personalised content. And this improves organic engagement. The algorithm of the streaming broadcasters is so formidable that all the viewer experiences are perfectly automated. Credits are due to advanced technologies like AI-based machine learning and digital recommendation engines.

2.3 The Unique Recommendation System

Netflix is a streaming giant known for its personalised streaming recommendations. The streamer's algorithm strives to find a show or movie with minimal effort. As mentioned earlier, the viewing history of an individual is the basis for this streamer's recommendation. The algorithm captures the time of the day one watches content, how long he or she watches the same and on which device he or she watches it! For a new user, if there are no recommendations, the user-friendly catalogue of the streamer is more than handy.

Netflix has been used here as an example of how AI-based machine learning works wonderfully to provide viewers with the best experience [14]. Netflix's AI generates thumbnails for users. It annotates and ranks several frames collected from a pre-existing TV film or television program to confirm which thumbnails are most likely to generate a click from the users.

2.4 *The Highest Streaming Quality*

It has been estimated that nearly 220.70 people worldwide use Netflix for their viewing experiences [14]. The other platforms are not far behind, too. With such a heavy traffic viewership, video qualities are not easy to maintain. Every modern-day film or series captured in ultra-high-definition quality needs to be shown on OTT, invariably in the same resolution. Most of the OTT platforms, especially Netflix, have ensured that the videos streamed are in ultra-high-definition resolution. This almost matches the experience of watching a film in a theatre or film house. Most of the OTT platforms put AI and ML technology to optimal use to give the viewers an exciting and enriching experience. There are multiple scholarly articles that substantiate this (Jayathilake, 2020).

2.5 *Measurable Impacts of Personalised Streaming Broadcast*

Unlike non-personalised and conventional broadcast, personalised streaming broadcast has gained credence, acceptance, and recognition in an incredibly quick time [13]. The last five years have seen the best impact ever documented in the history of broadcast. Thanks to the optimisation of AI and ML technology. Personalised video broadcasters have used these technologies to the hilt. There are measurable impacts the personalised broadcast has created in the fields of education, business, international diplomacy, philanthropy, marketing, advertisement, and the like. Besides, its social impact deserves mention, too.

3 *General Impact*

The general impact of personalised impact is basically the luxury of choices offered to the viewers. The user-friendliness and the low-cost viewing facility make its monopoly on broadcast complete. A film screened in a cinema house would cost Indian rupees two hundred per person, and a family of five members would end up spending Indian rupees one thousand easily [27]. The cost incurred on travelling to the film house or theatre will invariably add to the budget. And, it has to be noted that these costs are incurred on watching a single film. On the other hand, a monthly subscription to an OTT platform comes at a cost as low as Indian rupees two hundred. Multiple OTT platforms come to one's living room at a monthly cost of Rupees one thousand to one thousand five hundred. OTT platforms have yearly packages that are more budget friendly as well. Even if the subscription costs mentioned in Indian Rupees are converted to international currencies, personalised broadcast invariably stands cheaper! And, it goes without saying that the multiple choices of films, series and shows on OTT platforms are the most incredible luxury, too. It is worth mentioning here that during and post-pandemic (Covid119), the world has seen a surge in the personalised video broadcast. Streaming has, of course, been rising across the world in the last five years. Nevertheless, the pandemic forced the entire global population to be confined to their homes for a year or so. With no or limited access to entertainment, sports or film houses, consumers had to invariably turn to OTT platforms in numbers that had never ever been seen hitherto! And the new consumer behaviour forced upon by the pandemic) is now likely to stay forever. And this qualifies to be a paradigm shift! The launch of more and more OTT platforms is attributable to this consumer behaviour. While Netflix and Amazon Prime are OTT giants, the other platforms are indeed taking a leaf out of their books. Healthy competition among the multiple OTT platforms offers consumers more and more luxurious choices

[11]. OTT platforms now trump conventional broadcast channels through their live streaming of sports. After the live telecast is over, consumers have the option of watching deferred live and the highlights of sporting events. The OTT platforms broadcast reality shows and other events both live and deferred live. The popular TV serials of the yesteryears have been brought back into telecast for the benefit of consumers of a certain generation, too.

3.1 Social Impact

Society is the fulcrum around which the entire world order revolves. Social orders define ethics, politics, and governance. Studies reveal that personalised video broadcasts have impacted society drastically in the last five years. In India, the impact has been so pronounced as to be compared with the global impact. [14]. India, with its giant population, embraced the digital and multimedia revolution long ago. Ever since the liberalisation in the early nineties, the Indian society has been the biggest advocate of revolutions in media, science, and information technology. Society has accorded an overwhelming welcome to multiple television channels, social media, mobile applications, and the latest paradigm of personalised video streaming. It has to be acknowledged that consumers, irrespective of their gender, age, and generation, have accepted and acknowledged the personalised streaming broadcasts. The simple reason for this could be the widest of choices offered by personalised streaming broadcasters. These choices cater to the demands of the age, gender, and generation. One can see that even an octogenarian is not averse to watching OTT platforms like Netflix, Amazon Prime or Hot Star. There are broadcasts specific to women's health and well-being. There are broadcasts that cater to the demands of the youth and kids. The unplugged live streaming of sports and other shows has received an overwhelming reception. Those wedded to ideologies of politics and religion have their personal choices covered, too, through the programs tailor-made for them.

3.2 Educational Impacts

Digital evolution in education has already been accepted by the world, although the initiative still needs to make giant strides. The digital mode of education during Covid-19 has been an effectively forced substitute for conventional teaching and learning. This, indeed, does not mean that digital education has effectively replaced its conventional counterpart. But it has indeed made some strides during the pandemic. Artificial intelligence-driven education has historically made great strides. The paper does not intend to argue that personalised video streaming has overwhelmed the landscape of learning and teaching. However, there is no denying the fact that personalised videos are being used in the field of education more frequently than before, as evident from the feedback from students and teachers! Netflix has made rapid strides in language learning, especially in the learning of the English language (Gouletti and his colleagues 2020). A guide to language learning with Netflix is also a reference material quite handy for learners [1]. Many other OTT platforms have followed suit to provide enriching experiences of teaching and learning, as well! And the initiatives are evolving with each passing day.

3.3 Impact on Marketing

In a globalised landscape of business, marketing plays a huge role in dominating the market and achieving a

monopoly. While conventional modes of broadcast are doing their best to market businesses, personalised broadcast platforms have left no stone unturned in being key players in marketing [12]. In an era, which has most of the viewers glued to OTT platforms as against conventional platforms, marketing via advertisements and promotional telecasts thrives quite handsomely. Furthermore, there are events or shows exclusively sponsored by business conglomerates. These events or shows are mostly hosted by popular personalities or those who enjoy celebrity status. This indeed substantiates the claim that OTT marketing is headed towards the right direction. In an extended communication in the form of a research paper, this can be better explored. This review paper confines itself to the scope of a review!

3.4 *Role of OTT Platforms in Sports Market Growth*

Sports, like cinema, hold enviable recognition across global societies! Conventional broadcasters have now allowed personalised streamers to broadcast sports as live, deferred live and highlight. According to the 'Global News Report', OTT platforms play a mammoth role in the sports market growth [28]. Once again, now the shift is from conventional to personalised streaming. One may now be curious as to how this assist or promotes market growth. The answers are not hard to find. Conventional broadcasts are mostly confined to the living rooms unless these broadcasters sell their rights to personalised streaming broadcasters! Why do conventional broadcasters have to sell or give the rights of the telecast to personalised broadcasters or platforms? Conventional broadcasters have come to realise that the market needs broadcasting accessible beyond living rooms. While conventional broadcasters retain their conventional broadcasting rights, a trade-off is often worked out to permit the streaming platforms to telecast sporting events. Some OTT platforms, incidentally, acquire exclusive rights to telecast sporting events, too. There are definite advantages to personalised streaming of sports events [17]. The lovers and aficionados do not have to miss out on the visual excitement of sporting events, even if they are far from the comfort of their living rooms. Furthermore, the readily accessible deferred live and highlights add to the ease of viewing such events. The businesses house that promotes themselves now has better options for aligning with the streamers than the conventional broadcasters. And another couple of years down the road will see sporting event telecasts being monopolised by the personalised video streaming giants. This will indeed be a paradigm shift we will all be eagerly discussing sooner than later. While businesses see drastic growth through personalised streaming, the broadcasters of personalised streaming see a gigantic growth in streaming services, too! Conventional broadcasters are closely watching the developments. There is indeed a possibility of conventional broadcasters converting their services to personalised streaming in the near or the distant future.

3.5 *OTT Platforms and Their Impact on the Youth*

We have seen the social impacts of personalised streaming on society [26]. It is now quite obligatory to see how personalised streaming impacts the youth. There, of course, are conventional arguments on how personalised video contents influence the youth [22]. However, this has to be seen more as a flip side of an argument. The argument that personalised streaming allows access to gore, violence and sex is farfetched as the conventional broadcasts have an equal proportion of all of these. One has to look at the permissible trade-off here! Imaginably, even if the OTT platforms were not to exist, the youth would find their way to access gore,

violence, and sex. Personalised video streamers are, therefore, not ethically bound to feel guilty. Personalised video streamers have indeed been ethical enough to mention that a certain broadcast contains adult, gory, violent, and sexual content [6]. The orthodox societies of the world still have their conventional wisdom to advance an argument that OTT platforms have corrupted the faculties of the youth. However, there exist no peer-reviewed research articles to substantiate such claims. This is a confirmation bias many holds close to their hearts. Confirmation bias is a cognitive dissonance that overwhelms both the literate and illiterate masses. Unfortunately, this dissonance overwhelms even the most educated, irrespective of their professional excellence in various domains [23]. It has to be argued here that resistance to change has always been a conspicuous phenomenon in the history of the world. The world has seen enough visualised content on gore, violence, and sex. Visualised versions of Julius Caesar, Cleopatra, Macbeth, or some of the goriest of tragedies have had their positive and negative impact on the viewers ever since visual broadcast made its presence. Did Madonna's emergence not indicate a shift in the hitherto existing perspectives on sexuality? The old order often changes, paving the way for the new! The positives will have to be adopted quickly. The perceived negativities need to be given the benefit of the doubt until there are incontrovertible proofs that support such criticism. A few rapes or murders inspired by personalised videos may deserve a discussion. However, the percentage of the population inspired by personalised videos to commit crimes is less than minuscule. A new world order of youth has already emerged, and personalised videos provide them with entertainment as well as education. Some of the finest British and American talk shows have indeed excited the imagination of the youth. In India, the youth that has hitherto watched only content made on Indian culture now has access to the global cultures that define the concept of global citizenry[29]. This review acknowledges its limitations and hence does not want to delve deeper into the extensive research on how personalised content has been more beneficial than harmful to the youth.

3.6 *OTT Platforms, the Global Connect*

Before the advent of OTT platforms in India, access to international content on entertainment, socio-political awareness and global culture was restricted to a few international channels streamed as part of conventional cable broadcasts. The arrival of digital media and the transformation brought about by the OTT platforms could best be described as a paradigm shift. An Indian desirous of understanding the western perspectives of the private, social, and political landscape may easily use an OTT platform's content to understand, appreciate, discuss, or debate the culture or ethos alien to his or her own [7]. The same applies equally to any foreigner desirous of understanding the Asian, sub-continental or oriental perspectives of a society. Personalised videos have fast adopted the axiom or concept of the global village. An average Indian's understanding or knowledge of a global personality in politics, cinema, sports, or other domains has only increased with the advent of personalised streaming broadcasts. Extensive research on this could indeed contribute to a separate research paper!

3.7 *The Perceived Demerits or Negatives*

Every scientific endeavour in history has had its own share of imperfections. There may be demerits to personalised streaming broadcasts. But they are certainly negotiable as their overwhelming merits outweigh

their demerits. The criticism of access to too much gory, violent, and sexual content ought to be taken in its stride. The argument that such contents inspire crimes is definitely not to be ignored (Maurya, 2018). However, such content-inspired crimes existed even when conventional broadcasts were dominant. It is perhaps true that the quantity of content has risen with the emergence of personalised video broadcasts! Incidentally, there exists criticism of democracy which is widely recognised as the best form of governance. The few or virtually no choice to replace democracy still justifies it as being the best form of governance. The criticism that the content streamed on OTT erodes a culture, social values, or ethos is farfetched. Revolutions such as print to radio, radio to television, television to cable broadcast and cable broadcast to digital media and OTT have only transformed the landscape of the media. Objectivity demands that we need to be patient in evaluating a change or upheaval in society [24]. What the personalised video broadcasts have achieved over a period of time is quite remarkable, to say the least. Hence, we need to arrive at a consensus to say that personalised streaming broadcast is nothing but one of the finest paradigms the world has ever seen!

4 The Review and its Limitations

This is a review, not a complete research endeavour. Therefore, it has its obvious limitations. The referencing has been done both from peer-reviewed articles as well as contents extracted from newspapers and other media reports. Some informal interactions with viewers of different genders, ages and generations have also preceded this review. This perhaps qualifies the paper to be semi-research writing. The limitation of these interactions is that they remain informal and hence cannot be quoted as sources. The negative observations on OTT platforms have been obtained from viewers of a certain generation, too. As the sources are informal, there indeed are limitations in quoting them. The review has mostly used Netflix as a giant in the field of personalised video streaming. However, the review also adds that other OTT platforms are either emulating or fast catching up with Netflix. Nevertheless, the viewer data available worldwide [30] makes it obligatory for this review to use Netflix as the predominant personalised video broadcaster. A consensus of various statistical pieces has been used to draw a conclusion on Netflix's dominance. The limitations aside, the review has been sincere in evaluating the emergence of personalised streaming broadcasts!

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