

Review Paper on Analysis of Human Behaviour on Movie Reviews

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ABSTRACT

Movie reviews are a frequently employed tool by consumers to gauge whether a movie justifies the cost of admission. However, their actual impact on the consumer thought process varies. Movie reviews serve as a valuable source of understanding human behavior and preferences, offering insights into various aspects of the human psyche. This paper presents a comprehensive review of research that analyzes human behavior within the context of movie reviews. By examining various dimensions of sentiment, opinion formation, bias, and social media, this paper aims to provide a holistic overview of the intricate relationship between human behavior and movie reviews. Through the synthesis of studies conducted across different methodologies and platforms, this review sheds light on the motivations and patterns that drive individuals to express their opinions about movies.

Keywords: Movie reviews, digital media, human behavior, sentiment analysis, decision making, opinion formation, opinion mining, social media

INTRODUCTION

In the age of digital media and the internet, the act of watching a movie has transcended the confines of a darkened theater and a bucket of popcorn. Today, the cinematic experience is a dynamic, interconnected process that extends far beyond the silver screen. One integral component of this cinematic ecosystem is the phenomenon of movie reviews, where individuals, armed with keyboards and opinions, become active participants in shaping the perception and reception of films.

Movie reviews are more than mere critiques; they are a reflection of human behavior, encapsulating the spectrum of emotions, thoughts, and judgments that arise when individuals engage with cinema. The rise of online platforms dedicated to the sharing of movie reviews, from established giants like IMDb and Rotten Tomatoes to the expansive realm of social media, [21] has made these expressions of human behavior readily accessible and influential. They not only provide valuable insights into the minds of moviegoers but also wield substantial power in shaping the fates of films in an increasingly competitive industry.

Understanding human behavior in movie reviews is an interdisciplinary endeavor that draws from fields as diverse as psychology, linguistics, sociology, and data science. It

entails deciphering the sentiments and emotions that underlie the words, decoding the demographic markers that influence perspectives, and dissecting the psychological nuances that guide the creation of reviews. It also necessitates examining the broader social dynamics at play, including the sway of herd behavior and the ethical considerations surrounding the authenticity of reviews.

OPINION FORMATION AND INFLUENCE

Opinion formation and influence are pivotal aspects of the analysis of human behavior in the context of movie reviews. Movie reviews serve as a rich field to explore how opinions are shaped and how they, in turn, influence the choices and perceptions of individuals.

Opinion formation in movie reviews often begins with individual experiences and expectations. Cognitive biases, such as confirmation bias, can lead reviewers to seek and emphasize aspects of a film that align with their preconceived notions. This can result in polarized opinions, where one viewer perceives a movie as a masterpiece while another deems it a disappointment.

Furthermore, the influence of social factors cannot be underestimated. Social influence plays a significant role in opinion formation, especially in the age of social media.

People often turn to platforms like Twitter, Facebook, or dedicated movie review websites to share their thoughts and seek validation or disagreement from their peers. This social validation or debate can reinforce or reshape their opinions. [10, 21]

Professional critics also exert substantial influence. Critics are often viewed as experts in the field, and their reviews can sway public opinion. Positive reviews from respected critics may lead more people to view a film, while negative reviews can deter potential viewers. [13, 20]

The influence of movie reviews on the behavior of consumers cannot be overstated. Positive reviews can drive ticket sales and contribute to a film's commercial success, while negative reviews may deter potential viewers. [20] The role of word-of-mouth cannot be ignored, as personal recommendations from friends or family often carry significant weight in influencing movie choices. [10, 12]

In the digital age, sentiment analysis and opinion mining techniques are employed to extract and analyze sentiments from a plethora of movie reviews. [21] These methods provide valuable insights into how opinions are distributed, aggregated, and influential in guiding consumer decisions.

SENTIMENT ANALYSIS

Opinions wield substantial influence over human behavior, permeating virtually every facet of our lives, including the realm of entertainment. With the widespread proliferation of the internet, individuals now habitually share their sentiments, viewpoints, and perceptions on social networking platforms and private blogs. These expressions manifest as status updates and reviews, forming a substantial repository of user-generated content. Given the often generic nature of these posts, the need for precise analysis becomes imperative. [2]

In this landscape, Sentiment Analysis emerges as a pivotal tool, facilitating the extraction of valuable feedback on both newly released products and the usability of existing ones. This feedback mechanism has extended its reach beyond product assessments, encompassing diverse domains such as mood prediction within song lyrics, discourse in news comments, discussions around sports and games, and, notably, movie reviews. Its application is not limited to individuals alone; government entities and private enterprises have also embraced Sentiment Analysis to gauge public sentiment and measure the performance of their products and services. [2]

Among the array of entertainment options, movies stand as a cherished form of escapism for humanity. It is customary for people to engage in cinematic experiences and subsequently share their thoughts and assessments through online platforms, be it social media or personal blogs. These movie reviews, while seemingly casual expressions of opinion, hold substantial sway, not only on the filmmakers themselves but also on prospective moviegoers who seek guidance in their viewing choices. [2] Instead of sifting through the vast expanse of user-generated content, Sentiment Analysis emerges as an efficient approach. It allows us to methodically analyze textual records, distill the collective sentiment, and provide insights into the overall impact a movie has had on its audience.

In essence, Sentiment Analysis has evolved into an invaluable tool for discerning the pulse of public opinion, particularly within the realm of movies. Its ability to distill the collective sentiment from the vast sea of online commentary serves as a valuable resource for filmmakers, studios, and movie enthusiasts alike, offering a deeper understanding of the cinematic experiences that captivate our imaginations. [2] Three prominent learning methodologies form the foundation of data analysis:

Supervised Learning: This method entails constructing a classifier based on labeled data. In supervised learning, the algorithm learns to make predictions by mapping input data to the corresponding correct output, using the labeled examples provided during training. It is widely used in tasks such as image classification, spam email detection, and sentiment analysis. [2]

Unsupervised Learning: Unsupervised learning, in contrast, builds a learning mechanism without the guidance of labeled data. Instead, it explores patterns, structures, and relationships within the data itself. Clustering and dimensionality reduction are common applications of unsupervised learning, where the goal is to uncover hidden patterns or groupings in the data. [2]

Semi-Supervised Learning: This approach takes advantage of both labeled and unlabeled data to build a classifier or model. While it uses labeled data to guide the learning process, it also leverages the vast amount of unlabeled data available, enhancing the model's performance and generalizability. [2]

In the realm of data mining, a specialized branch known as "Sentiment Analysis" or "Opinion Mining" has emerged. It focuses on the classification of textual data, such as statuses or reviews, into categories like positive, negative, and

neutral. In this particular paper, the primary emphasis is placed on the binary classification of sentiments into positive or negative. Sentiment analysis is invaluable in various domains, including social media monitoring, product reviews, and market research, as it helps to distill and quantify the subjective opinions and emotions conveyed in text data.

Sentiment Analysis, a critical component of text analysis, relies on distinct methods, with two primary approaches being:

Bag of Words Model (BoW): BoW primarily prioritizes individual words over the context in which they appear. This approach employs a "dictionary" of words, each assigned a weight, referred to as sentiment in the context of sentiment analysis. Textual records are tokenized into words, and the sentiment score is calculated by summing the weights associated with these words. BoW doesn't consider grammar, language nuances, or context, which can limit its effectiveness, especially in tasks related to Human-Computer Interaction (HCI). [2]

Natural Language Processing (NLP): NLP, a field of Artificial Intelligence, goes beyond individual words, focusing on understanding context, word sequences, and sentence structures. Machines are trained to comprehend grammar principles, part-of-speech tagging, and named entities, allowing for a deeper understanding of the language. NLP techniques enable a more contextually aware analysis. [2]

Both methods have demonstrated their utility in various applications, but their effectiveness can vary based on the specific task and domain expertise. BoW, for instance, requires extensive machine learning components, often involving algorithms like Support Vector Machines (SVM), Naïve Bayes Classifier, or Maximum Entropy (MaxEnt) to identify patterns and assign weights. In practice, the Bag of Words representation is frequently used within NLP to enhance results. This representation is obtained using the Naïve Bayes Classifier, and processing is typically executed using the Natural Language Toolkit (NLTK), resulting in promising outcomes.

COGNITIVE BIASES IN REVIEWS

Cognitive biases are prevalent in the realm of movie reviews, significantly influencing how individuals perceive and evaluate films. These biases, deeply ingrained in human cognition, shape the way reviewers and audiences form opinions about movies.

One of the most common cognitive biases in movie reviews is the **confirmation bias**. Reviewers and viewers often enter a film with preconceived notions, whether they are fans of the director, actors, or genre. Confirmation bias leads individuals to seek out and emphasize aspects of the movie that align with their initial expectations while downplaying or disregarding contradictory elements. For example, a fan of a particular actor may focus solely on their performance, ignoring flaws in the film's plot or direction. [14]

Recency bias is another cognitive bias that frequently appears in movie reviews. This bias causes individuals to place disproportionate weight on their most recent experiences. Reviewers may be more inclined to give a glowing review to a movie they've just seen, even if it doesn't stand up to critical analysis, simply because it's fresh in their minds. Conversely, they may be overly critical of a film they saw some time ago, influenced by subsequent experiences. [15]

The **halo effect** is particularly relevant in movie reviews. It occurs when a person's overall positive or negative impression of something influences their judgments of specific attributes or features. In the context of movies, if a reviewer has a generally favorable view of a director's previous work, they might extend this positive impression to the film in question, overlooking its actual merits or flaws. [16, 17]

Anchoring bias can also impact movie reviews. This bias involves giving too much weight to the first piece of information encountered. Reviewers and viewers who hear or read others' opinions about a movie before seeing it may be anchored by those initial impressions, making it challenging to form an independent judgment. [18, 19]

Moreover, the **negativity bias** can skew movie reviews. This bias leads people to give greater weight to negative information or experiences than positive ones. Reviewers may focus extensively on a single flaw or a negative aspect of a film, even if it represents a small part of the overall viewing experience. [20]

ONLINE PLATFORMS AND SOCIAL MEDIA

Online platforms and social media have become central in shaping human behavior and opinions, especially in the realm of movie reviews. These digital spaces significantly influence how individuals engage with and express their views on films, ultimately impacting the broader discourse surrounding movie reviews.

Community Building: Social media platforms enable the formation of online communities centered around shared interests, including movies. Movie enthusiasts can connect with like-minded individuals, share recommendations, and engage in discussions. These communities play a vital role in shaping opinions and influencing movie choices. [10]

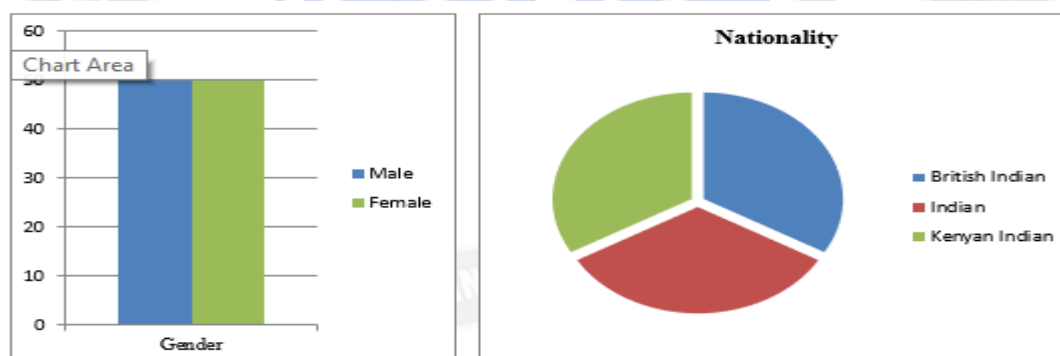
Influencer Culture: Social media has given rise to influencer culture, where individuals with significant followings on platforms like YouTube, Instagram, and Twitter have become influential movie reviewers. These influencers often provide in-depth analyses, recommendations, and critiques, which can sway the opinions of their followers and impact box office performance. [10]

Word-of-Mouth and Virality: Online platforms facilitate the rapid spread of word-of-mouth recommendations and criticisms. Viral content, such as memes, trending hashtags, and viral reviews, can significantly impact a movie's reputation. A single viral review, whether positive or negative, can reach millions of viewers within hours. [10]

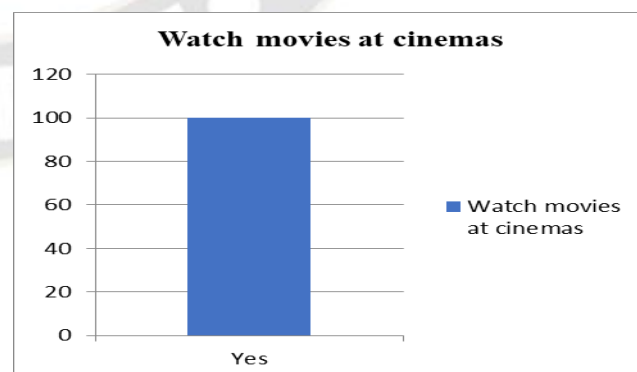
A research project was conducted to investigate people's familiarity with the movie "Vivah." The study aimed to understand whether individuals had viewed this film, how they became aware of its existence, and their subsequent responses and intentions related to Word-of-Mouth (WOM) communication following their experience with the movie. The research focused on collecting data from respondents of Indian origin, including individuals from diverse regions such as British Indians, Kenyan Indians, and citizens of India. This particular focus was chosen because the study sought to explore the impact of Word-of-Mouth (WOM) communication on the Hindi movie "Vivah."

The research was conducted with a relatively modest sample size of 120 individuals. This group was carefully structured to ensure gender balance, with an equal number of male and female respondents. Additionally, an equitable representation of participants was sought from three distinct geographical regions: Britain, India, and Kenya. [22]

Gender and Nationality



Moreover, it's important to note that the research cohort exclusively comprised individuals who identified as regular moviegoers. This specific selection criterion facilitated the study's focus on the impact of Word-of-Mouth (WOM) on motion pictures, making the research more tailored to its intended thesis. [22]



Real-Time Reactions: Social media allows for real-time reactions to movies, particularly during premieres and screenings. Audiences can share their immediate impressions, creating a buzz that can influence others'

decisions to watch or avoid a film. Film studios often monitor these real-time reactions to gauge a movie's reception.

Aggregation and Rating Platforms: Websites like Rotten Tomatoes, IMDb, and Metacritic aggregate movie reviews and provide audience and critic ratings. These platforms have a considerable influence on public perception and can affect a movie's success. A low rating can dissuade potential viewers, while a high rating can attract a larger audience. [10, 13]

Engagement with Filmmakers: Social media platforms offer a direct channel for audiences to engage with filmmakers, actors, and studios. Audiences can provide feedback, ask questions, and participate in discussions with those involved in a movie's production. This interaction can influence how audiences perceive and connect with a film.

Challenges of Misinformation: The ease of sharing information on social media also presents challenges, including the spread of misinformation or biased reviews. False reviews, whether positive or negative, can distort perceptions of a movie. Discerning credible sources from unreliable ones becomes essential. [10]

CONCLUSION

In summary, the influence of opinions, cognitive biases in reviews, the impact of online platforms and social media, cultural and societal factors, and the importance of sentiment analysis all underscore the complex interplay of human behavior in the digital age. Opinions guide choices and actions, while cognitive biases in reviews remind us to approach online content critically.

Online platforms and social media have redefined how we connect and share information, yet they pose challenges like privacy concerns. Cultural and societal influences remain paramount, shaping beliefs and values. Sentiment analysis provides a valuable lens for understanding online sentiment.

In this ever-evolving digital landscape, recognizing biases, seeking diverse perspectives, and embracing cultural awareness are essential for informed decision-making and navigating the complexities of the modern world.

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