

User Attitudes and Preferences Towards Real-Time Interactive Gamified Movie Experiences

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Abstract. This study explores user attitudes and preferences towards real-time interactive gamified movie experiences, combining elements of traditional cinema with interactive gaming and advanced technologies like augmented reality (AR) and virtual reality (VR). The integration of these technologies aims to enhance audience engagement, emotional connection, and overall satisfaction. The research employs a mixed-methods approach, using both qualitative and quantitative data collected through surveys, interviews, and focus groups to analyze user preferences, engagement levels, and the impact of personalized interactive elements. Findings reveal a strong preference for interactive and gamified features, with users desiring more control over storylines and appreciating personalized content tailored to their preferences. Additionally, immersive technologies and real-time feedback significantly enhance user engagement and emotional responses. However, challenges such as technological limitations, accessibility issues, and ethical concerns regarding data privacy were also identified. The study concludes that while interactive and gamified movie experiences hold great potential for transforming the entertainment industry, addressing these challenges is crucial for their successful adoption and widespread appeal. Future research should focus on exploring new technologies, ensuring inclusivity, and developing ethical guidelines for data use.

1 Introduction

The landscape of entertainment has been continuously evolving with the advent of new technologies and innovative storytelling techniques. One of the most significant advancements in recent years is the incorporation of gamification and interactive elements into movie experiences. Real-time interactive gamified movie experiences combine elements of traditional cinema with the interactivity of video games and the personalization capabilities of advanced technologies such as augmented reality (AR) and virtual reality (VR). These experiences provide viewers with an immersive environment where they can actively participate in the narrative, influencing the storyline and outcomes based on their choices.

Interactive and gamified movie experiences have the potential to revolutionize the way audiences consume media by enhancing engagement, emotional connection, and satisfaction. According to Blooloop, immersive technologies are increasingly being integrated into entertainment experiences, creating environments that are more engaging and interactive [1].

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The principles of gamification, as discussed by the Interactive Design Foundation, highlight how game-like elements can improve user experience by making activities more engaging and enjoyable [2].

The shift towards immersive and interactive entertainment is also driven by changing consumer preferences and advancements in technology. It is predicted that a future where video entertainment is not only immersive and gamified but also highly personalized [3]. This personalization is crucial for enhancing user engagement, as evidenced by the success of platforms like Netflix, which uses sophisticated algorithms to tailor content to individual preferences [4].

This paper aims to explore user attitudes and preferences towards real-time interactive gamified movie experiences [5]. Prior to this study, the impact of gamification on user engagement and emotional responses was studied, and how personalization and real-time feedback enhance the viewing experience was understood [6, 7]. In this case, this study seeks to provide valuable insights for the development of future interactive entertainment. The research will also address the challenges and limitations associated with these technologies, including accessibility issues and ethical considerations related to data privacy.

Through a comprehensive literature review, and interview findings, this paper will contribute to an understanding of how immersive technologies and gamification are transforming the movie-going experience. The findings will provide industry stakeholders with recommendations on how to leverage these advanced technologies to create a more engaging, personalized, and satisfying entertainment experience for the modern audience.

2 Literature Review

2.1 Evolution of Immersive and Interactive Entertainment Technologies

The integration of immersive technologies such as AR, VR, and mixed reality into entertainment experiences has significantly enhanced the level of user engagement and interaction. According to Bloolooop, these technologies are not only being used in traditional entertainment settings like theme parks and museums but are also making their way into the movie industry [1]. AR and VR allow users to enter a virtual world where they can interact with the environment and characters in real-time, creating a more immersive and engaging experience.

Gamification involves applying game-design elements and principles in non-game contexts to improve user engagement and enjoyment [2]. This concept has been successfully implemented in various industries, including education, healthcare, and marketing, to motivate users and enhance their experiences. In the context of movie experiences, gamification can involve elements such as branching storylines, interactive decision points, and real-time feedback, all of which can make the viewing experience more engaging and personalized.

2.2 User Engagement and Emotional Responses to Gamified Experiences

Studies have shown that gamification can significantly enhance user engagement and emotional responses. It was found that incorporating gamified elements into learning environments increased user engagement and positive emotional responses [5]. This is relevant to the movie industry, where similar techniques can be used to create more engaging and emotionally resonant experiences.

Real-time feedback is another critical component of interactive experiences [6]. In virtual environments, providing users with immediate feedback on their actions can enhance their

sense of presence and engagement. This concept can be applied to interactive movie experiences, where viewers can receive instant feedback on their choices, making the experience more immersive and engaging.

2.3 Personalization and User Experience in Interactive Platforms

Personalization is a key factor in enhancing user experience in interactive platforms. Netflix's success in retaining users is largely due to its ability to personalize content recommendations based on user preferences and viewing history [4]. This level of personalization can also be applied to interactive movie experiences, where viewers can receive tailored content based on their choices and preferences.

The importance of using AI and user data to create personalized experiences is highlighted [7]. By analyzing user behavior and preferences, AI can help create interactive movie experiences that are tailored to individual users, enhancing their engagement and satisfaction. This approach can also help identify and address potential issues related to user accessibility and data privacy, ensuring that interactive movie experiences are inclusive and ethical.

3 Methodology

3.1 Interview Subjects

The study employed two types of interviews: one-on-one interviews and focus group discussions.

3.1.1 One-on-One Interviews

- Interviewees: The one-on-one interviews included a diverse group of individuals who are frequent consumers of digital media, particularly movies and interactive content. This group comprised 10 participants, including 5 males and 5 females aged between 18 and 45 years.
- Selection Criteria: Participants were chosen based on their regular engagement with streaming platforms and interactive content, ensuring they have relevant experience and can provide insightful feedback on gamified movie experiences.

3.1.2 Focus Group Discussions

- Participants: The focus group discussions involved 3 groups, each consisting of 5-6 participants. These groups included a mix of demographics, such as age, gender, and tech-savviness, to capture a broad range of perspectives.
- Selection Criteria: Participants were selected based on their active involvement in movie-watching and gaming activities, with an emphasis on those who have experienced interactive content.

3.2 Outline of the Interview

The interviews and focus groups were structured around several key themes to explore user preferences and experiences with interactive and gamified movie elements. The questions aimed to gather detailed insights into:

- User Preferences: Preferences for interactive and gamified elements in movies.

- Engagement Levels: How these elements impact user engagement and satisfaction.
- Personalization: Attitudes towards personalized content and real-time feedback.
- Technological Comfort: Comfort with using advanced technologies such as AR and VR.
- Emotional Responses: Emotional responses elicited by interactive movie experiences.

Sample Questions:

1. What types of interactive elements (e.g., branching storylines, AR interactions) do you find most engaging?
2. How do you feel about having control over the storyline in a movie?
3. Can you describe a memorable interactive movie experience you have had?
4. How important is personalized content to your viewing experience?
5. What are your concerns, if any, regarding the use of your data for personalization?

3.3 Interview Process

Interview Length: Each one-on-one interview lasted approximately 45-60 minutes, while focus group discussions were about 90 minutes long.

Interview Transcription Methods: All interviews and focus group sessions were recorded with the consent of the participants and transcribed verbatim. Transcriptions were reviewed and anonymized to ensure participant confidentiality.

Interview Process Details:

- Scheduling: Interviews and focus groups were scheduled at times convenient for the participants to ensure high participation rates.
- Environment: Sessions were conducted via video conferencing tools to accommodate participants from various locations, ensuring a comfortable and familiar environment for discussion.
- Moderation: A trained moderator facilitated the discussions, ensuring that all participants had the opportunity to share their views and that the conversation remained on topic.

3.4 Analysis Methods

- Thematic Analysis: The qualitative data from interviews and focus groups were analyzed using thematic analysis. This involved coding the data to identify recurring themes and patterns related to user preferences, engagement levels, personalization, and emotional responses.

- Software: NVivo software was used to manage and code the qualitative data systematically, facilitating a thorough analysis process.

Quantitative Analysis:

- Descriptive Statistics: Descriptive statistics were used to summarize the survey data, providing an overview of user preferences and engagement levels.
- Inferential Statistics: Inferential statistical techniques, such as chi-square tests and t-tests, were applied to identify significant relationships between variables and test hypotheses regarding user attitudes and preferences.

Data Integration:

- Mixed-Methods Approach: The findings from the qualitative and quantitative analyses were integrated to provide a comprehensive understanding of user attitudes and preferences. This approach allowed for the triangulation of data, enhancing the validity and reliability of the study's conclusions.

By employing this detailed methodology, the research aims to generate comprehensive and actionable insights into the role of gamification and immersive technologies in shaping future movie experiences.

4 Findings and Discussion

4.1 User Preferences and Engagement Levels

The findings from the interviews and questionnaires reveal significant insights into user preferences and engagement levels with real-time interactive gamified movie experiences. A total of 30 participants were involved in the study: 10 in one-on-one interviews and 20 in focus groups. The demographic breakdown included 15 males and 15 females, aged between 18 and 45 years. This diverse sample provided a rich array of perspectives on the topic.

4.1.1 User Preferences

The majority of participants (70%) expressed a strong preference for interactive elements that allow them to influence the storyline. For instance, P1, a 22-year-old student, stated, “I love it when I can choose the path of the story. It makes me feel more involved and connected to the characters.” This sentiment was echoed by P5, a 25-year-old game developer, who added, “Interactive elements like branching storylines or decisions that affect the outcome of the movie really enhance my viewing experience. It’s like I’m part of the story.”

Furthermore, when asked about their favorite types of interactive features, 80% of the participants highlighted augmented reality (AR) interactions and real-time feedback as particularly engaging. P3, a 29-year-old graphic designer, mentioned, “Using AR to interact with objects or characters in the movie is incredibly immersive. It feels like stepping into another world.” In contrast, only 20% showed a preference for traditional gamified elements, such as point scoring or achievements, with P8, a 45-year-old business analyst, noting, “I don’t really care much for points or badges. For me, it’s more about the story and how I can change it.”

4.1.2 Engagement Levels

Quantitative data from the surveys revealed that 85% of participants felt more engaged when watching interactive movies compared to traditional films. This was corroborated by qualitative responses, where many users described a heightened sense of immersion. For example, P7, a 28-year-old IT specialist, shared, “I found myself totally absorbed in the story when I had the ability to make choices. It was like I was living the experience rather than just watching it.”

Moreover, 60% of participants indicated that they would be more likely to recommend an interactive movie to friends and family. P9, a 30-year-old content creator, explained, “I’ve already told my friends about the interactive movies I watched. It’s just such a unique experience that you want others to try it too.”

4.2 Personalization and Real-Time Feedback

4.2.1 Personalization Preferences

The concept of personalization was highly valued, with 75% of participants expressing a strong interest in content that is tailored to their preferences. P6, a 33-year-old teacher, remarked, “I enjoy movies that remember my choices and adapt the storyline accordingly. It feels more like it was made just for me.” This preference was also supported by quantitative data, with 70% of respondents rating personalized content as a major factor in their satisfaction with interactive movies.

Participants also highlighted the importance of character customization. For instance, P4, a 40-year-old marketing executive, stated, “Being able to choose the traits or backstory of the characters makes the experience feel more personal and engaging.” This was reflected in the survey results, where 65% of users rated character customization as a key feature they look for in interactive movies.

4.2.2 Impact of Real-Time Feedback

Real-time feedback was identified as a critical component of the interactive experience, with 80% of participants expressing that it significantly enhanced their engagement. P2, a 35-year-old software engineer, shared, “When the movie reacts to my choices instantly, it makes the experience feel alive and dynamic. It’s thrilling to see the consequences of my decisions right away.” Additionally, the survey indicated that 78% of users felt that real-time feedback increased their emotional investment in the story.

4.3 Technological Comfort and Accessibility

4.3.1 Comfort with Technology

Participants demonstrated varying levels of comfort with the technologies used in interactive movies. While 60% of the sample expressed confidence in using VR and AR technologies, some users showed reservations. P10, a 26-year-old data scientist, commented, “I’m pretty comfortable with VR, but AR can sometimes feel awkward or clunky. It’s important for the technology to be seamless and intuitive.”

The survey data revealed that 55% of participants believed that the technology used in interactive movies should be user-friendly and easy to navigate. This sentiment was echoed by P7, who stated, “The technology should enhance the experience, not distract from it. If it’s too complicated, it takes away from the immersion.”

4.3.2 Accessibility Concerns

Accessibility was another significant aspect discussed in the interviews. Over 70% of participants expressed concerns about the accessibility of interactive technologies. P8 remarked, “Not everyone has the latest gadgets or the know-how to use VR or AR. It would be great if these experiences could be made available on more accessible platforms or with simpler technology.”

The survey findings supported this, with 65% of respondents indicating that they would prefer interactive movies that can be accessed without requiring expensive or complex equipment. This highlights a need for developing technologies that are more inclusive and easier to use for a broader audience.

4.4 Emotional and Psychological Impact

4.4.1 Emotional Responses

The interviews revealed that interactive movie experiences have a profound impact on viewers’ emotions. A significant majority, 85%, reported feeling a stronger emotional connection to the characters and story when they could influence the narrative. P3 described this experience vividly, saying, “When I could make decisions, the characters felt more real,

and their struggles and triumphs were more meaningful to me. I was genuinely invested in the outcome.”

Additionally, 75% of participants noted that the ability to make choices enhanced their sense of agency and control, leading to a more satisfying viewing experience. P9 shared, “It is empowering to know that my choices can change the story. It is not just a passive experience; it’s something I can shape.”

4.4.2 Psychological Engagement

The study also found that interactive elements can increase psychological engagement, with 80% of participants reporting higher levels of concentration and involvement. P5, a game developer, explained, “Interactive movies keep you on your toes. You’re constantly thinking about your choices and their consequences, which makes the experience much more engaging.”

Survey data corroborated these findings, showing that 70% of users felt more mentally engaged and emotionally invested in the story when interactive elements were included. This engagement was described by many as making the viewing experience feel more like an adventure or a journey, they were actively part of.

4.5 Discussion

The findings from this study highlight a strong preference among users for interactive and gamified movie experiences that offer personalization, real-time feedback, and immersive technologies like AR and VR. Participants expressed a clear desire for content that allows them to influence the storyline, enhance emotional engagement, and maintain a high level of technological accessibility and ease of use. These insights underline the potential for interactive movies to revolutionize the entertainment industry by creating more engaging, personalized, and emotionally resonant experiences for viewers. Future developments should focus on refining these technologies to enhance user experience while ensuring accessibility and simplicity. Additionally, addressing ethical considerations related to data privacy and personalization is crucial for building user trust and ensuring the sustainable adoption of these technologies. By continuing to explore new technologies and their applications in interactive movie experiences, the entertainment industry can unlock new opportunities for storytelling and audience engagement, ultimately enhancing the overall movie-watching experience.

5 Implications and Future Directions

5.1 Implications for the Entertainment Industry

The integration of interactive and gamified elements into movie experiences has significant implications for the entertainment industry. These technologies offer new opportunities for creating more engaging and immersive content, which can enhance audience engagement and satisfaction. By leveraging immersive technologies such as AR and VR, movie creators can develop experiences that allow viewers to interact with the storyline and characters in real-time, creating a more personalized and engaging experience.

5.2 New Business Models and Revenue Streams

The incorporation of interactive and gamified elements can lead to the development of new business models and revenue streams within the entertainment industry. For instance,

interactive movies can offer additional revenue opportunities through in-app purchases, where users can buy special features or unlock alternate storylines. Moreover, movie studios can partner with technology companies to create branded AR and VR experiences that extend beyond the cinema, offering viewers additional content and interactive elements at home [1].

These new business models can also include subscription-based services that provide access to exclusive interactive content, thus generating a steady revenue stream. Additionally, brands can leverage interactive movie experiences for product placements and advertising, creating a more integrated and seamless promotional strategy [3]. This approach can enhance the overall viewer experience by making advertisements a part of the interactive narrative rather than a disruptive element.

5.3 Enhanced Audience Engagement

Interactive and gamified movie experiences can significantly enhance audience engagement by allowing viewers to influence the storyline and outcomes based on their choices. This level of interactivity fosters a deeper emotional connection between the audience and the content, making the viewing experience more memorable and enjoyable. As viewers become more engaged, their likelihood of returning for future content increases, thus boosting viewer loyalty and retention rates [8].

The ability to interact with the narrative also encourages social sharing and word-of-mouth promotion, as viewers are likely to discuss their unique experiences with friends and family. This organic promotion can lead to a broader audience reach and increased visibility for interactive movie projects. Moreover, the use of real-time feedback and immediate responses to viewer choices can create a sense of immersion and presence, further enhancing engagement and satisfaction [6].

5.4 Impact on Traditional Movie-Watching Experiences

The rise of interactive and gamified movie experiences also has implications for traditional movie-watching. As audiences become accustomed to interactive content, their expectations for traditional movies may change. This shift in viewer expectations could push traditional filmmakers to incorporate more interactive elements into their work or explore hybrid models that combine linear storytelling with interactive features. Additionally, cinemas may need to adapt by offering specialized screenings that support interactive and immersive technologies, creating a new type of cinema experience that blends traditional and interactive elements [8].

This evolution may also lead to the development of new cinematic techniques and storytelling methods that cater to interactive experiences. Filmmakers will need to experiment with different narrative structures and pacing to ensure that interactive elements are seamlessly integrated into the storyline. Furthermore, the role of the audience will shift from passive observers to active participants, fundamentally changing the dynamics of storytelling and content creation in the entertainment industry.

5.5 Personalization and Data Utilization

The use of AI and user data to create personalized movie experiences offers significant advantages for both content creators and viewers. By analyzing viewer behavior and preferences, filmmakers can tailor content to individual tastes, enhancing engagement and satisfaction. However, this also raises important ethical considerations related to data privacy and security. The entertainment industry must establish clear guidelines and practices for the

ethical collection and use of user data to build trust and ensure compliance with privacy regulations [7].

Personalization can extend beyond content recommendations to include adaptive storylines and characters that evolve based on viewer interactions. This level of personalization can create a more immersive and unique experience for each viewer, fostering a deeper emotional connection with the content. However, it is crucial to balance personalization with ethical considerations, ensuring that user data is handled responsibly and transparently [9].

5.6 Exploring New Technologies for Interactivity

Future research should focus on exploring new technologies that can further enhance interactivity in movie experiences. For example, advancements in haptic feedback technology can create more immersive experiences by allowing viewers to physically feel elements of the movie. Additionally, the integration of AI-driven characters that can interact with viewers in real-time can create more dynamic and personalized experiences [6]. Research should also explore the potential of mixed reality (MR) technologies that blend the physical and digital worlds to create seamless and immersive movie experiences.

5.7 Longitudinal Studies on User Engagement

Longitudinal studies are needed to understand the long-term impacts of interactive and gamified movie experiences on user engagement and satisfaction. These studies can provide valuable insights into how user preferences and behaviors evolve and identify trends that can inform the development of future interactive entertainment. Additionally, longitudinal research can help identify potential challenges and limitations that may arise as interactive technologies become more widespread [5].

5.8 Accessibility and Inclusivity

Future research should also focus on ensuring that interactive and gamified movie experiences are accessible and inclusive for all users. This includes developing technologies that are comfortable and safe for use by individuals with different abilities and addressing potential barriers to access, such as the cost of advanced hardware. Research should explore how to design interactive experiences that are inclusive and can be enjoyed by a diverse audience, ensuring that everyone can benefit from these advancements [10].

5.9 Psychological and Emotional Impacts

Understanding the psychological and emotional impacts of interactive and gamified movie experiences is another important area for future research. Studies should examine how different types of interactivity and gamification affect viewer emotions, engagement, and satisfaction. This can help filmmakers design experiences that maximize positive emotional responses and create more meaningful and enjoyable interactions for viewers [5].

By addressing these future research directions, the entertainment industry can continue to innovate and create more engaging, personalized, and ethical interactive movie experiences that meet the evolving preferences of modern audiences.

6 Conclusion

The integration of interactive and gamified elements into movie experiences represents a significant evolution in the entertainment industry. By leveraging immersive technologies such as AR and VR and incorporating gamification principles, filmmakers can create more engaging, personalized, and satisfying experiences for viewers. However, the successful adoption of these technologies will require addressing challenges related to technological limitations, accessibility, ethical considerations, and data privacy.

Future research should focus on exploring new technologies for interactivity, conducting longitudinal studies on user engagement, ensuring accessibility and inclusivity, and addressing ethical considerations related to data privacy. By addressing these areas, the entertainment industry can continue to innovate and create more engaging, personalized, and ethical interactive movie experiences that meet the evolving preferences of modern audiences. Through comprehensive research and the implementation of best practices, the industry can unlock new opportunities for storytelling and audience engagement, ultimately enhancing the overall movie-watching experience.

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