Interactivity and Immersion in Movie-Game Integration: Uses and Gratifications of Audience Engagement in 'Love Is All Around'

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Abstract This study examines audience engagement with 'Love Is All Around' (LIAA), China's highest-grossing live-action interactive entertainment product of 2023, through the lens of uses and gratifications theory. Drawing on questionnaire data, we investigate how this emerging hybrid media form integrates cinematic and gaming modalities to create new patterns of user engagement and gratification. Our findings reveal that while LIAA users predominantly identify as viewers rather than gamers, they actively engage with both narrative and interactive elements. The analysis demonstrates how such convergent media products fulfill multiple gratification functions: beyond entertainment, they facilitate social connectivity and personal development. Users navigate fluidly between passive viewing and active participation, suggesting a transformation in traditional audience roles. The study contributes to theoretical understanding of contemporary digital media consumption while offering practical insights for industry development. We argue that successful convergent media products must strategically balance narrative immersion with interactive agency to maintain user engagement. These findings illuminate evolving patterns of media consumption in the digital age, where boundaries between traditional viewing and gaming continue to blur.

Index Terms media convergence, uses and gratifications, interactive media, audience studies, digital narratives

I. Research Background

The convergence of film and gaming media represents a significant transformation in contemporary digital culture. This phenomenon, driven by technological innovation and creative experimentation, challenges traditional media boundaries and creates hybrid forms of entertainment [1], [2]. The integration manifests across multiple dimensions: narrative architecture, technological infrastructure and industrial practices [3], [4]. Both films and games, as composite media forms, share fundamental elements in narrative construction, character development and world-building while maintaining distinct approaches to audience engagement - games prioritizing interactivity and agency whereas films typically follow linear progression [5].

The conceptual evolution of this convergence reflects its increasing complexity, moving beyond simple 'variation' or 'synchronization' to encompass deeper integration of content, form and aesthetics. This trajectory demonstrates a shift from purely commercial considerations of IP management towards a more nuanced understanding of media hybridization [6], [7].

The 2023 release of 'Love Is All Around' (LIAA) by Guangzhou Xiaoyou Interactive Entertainment exemplifies this convergence paradigm. Launched on STEAM, the platform data indicates significant market success: maintaining regional sales leadership for two consecutive weeks with a 95% approval rating. The product's impact extended beyond immediate consumer response to influence capital markets, with related stocks showing substantial gains - Tianwei Vision (63%), China Literature Online (60%), and others recording notable increases.

This study employs uses and gratifications theory to examine how LIAA's hybrid characteristics attract diverse audience segments. By investigating users' psychological motivations and gratification patterns, we aim to illuminate how convergent media products satisfy multiple needs across entertainment, social connection and self-actualization domains.

II. Literature Review

II. A.Film-Game Media Convergence in Fluid

The theoretical foundations of film-game convergence can be traced to Jenkins' (2003) conceptualization of 'transmedia storytelling', wherein distinct media platforms leverage their unique affordances to deliver

complementary narrative experiences. Jenkins argues that narrative elements may originate in cinematic form before expanding across television, literature and interactive gaming platforms, creating an integrated storytelling ecosystem. This framework has proved instrumental in understanding how content traverses and adapts across media boundaries while maintaining narrative coherence [1].

Film-game convergence operates at both macro and micro levels - from broad technological and industrial convergence between sectors to specific hybrid forms like gamified films and interactive cinema. The theoretical understanding has evolved from simple 'transmedia storytelling' to examining deeper integration within entertainment ecosystems, particularly focusing on IP management across media sectors [8]-[10].

Scholars have conceptualized movie-game convergence as the progressive integration of cinematic and gaming industries, reflecting broader patterns of media convergence [11]-[13]. The evolution of film-game convergence can be divided into three main phases: the 1980s Nintendo adaptations establishing cross-media IP development, the early 2000s dominance of sci-fi franchises like Star Wars and The Matrix, and the post-2010 rise of fantasy properties such as World of Warcraft and Harry Potter. These convergent works typically fall into two categories based on their primary focus: game-centered or film-centered convergence [14].

Two primary modes of convergence characterize the film-game media landscape. Game-centered convergence incorporates cinematic elements - including narrative structures, character designs and visual aesthetics - into gaming frameworks. This approach positions games as both narrative extensions and interactive explorations of filmic universes, transforming players from passive observers into active participants. Notable examples include licensed adaptations (e.g. Warner Bros' DC properties) and original properties employing cinematic techniques (e.g. Ubisoft's Assassin's Creed franchise), where narrative cinematography serves as a crucial element in fostering player immersion.

Conversely, film-centered convergence builds upon traditional audiovisual foundations whilst integrating gaming mechanics. This more prevalent approach aims to enhance audience engagement through interactive elements, manifesting in various forms: game-to-film adaptations (e.g. Warcraft, 2016), productions incorporating ludic narrative techniques (e.g. Run Lola Run, 1998), and perhaps most significantly, the emergence of interactive cinema. This latter category, exemplified by Netflix's Black Mirror: Bandersnatch (2018) and Late Shift (2016), enables audiences to shape narrative progression through decision points, fundamentally altering traditional viewing paradigms.

Chinese scholarship on film-centered convergence has focused on media hybridization's aesthetic and cultural impacts. Research identifies four key manifestations: IP adaptation, rule-based narratives, game-influenced aesthetics, and ludic imagery incorporation [15]. Studies show that 'gamified films' integrate gaming elements through spatiotemporal configuration, narrative architecture, and visual representation [2], [16].

The evolving landscape of movie-game convergence has given rise to hybrid formats that challenge traditional media categorization, as exemplified by LIAA. While released on the gaming platform STEAM with interactive elements and player choice mechanics, LIAA predominantly follows traditional audiovisual storytelling conventions in its core narrative structure, visual presentation, and storytelling approach. This cinematic orientation is further validated by its groundbreaking achievement in April 2024, when LIAA became the first convergence work to obtain a network drama distribution license from the National Radio and Television Administration, effectively bridging both gaming and video platforms in China. This official recognition, combined with its primary reliance on movie-style narrative techniques, positions LIAA more as an interactive drama than a traditional game.

Based on the above analysis, this study proposes its first hypothesis:

H1: The majority of LIAA users identify themselves more as audiovisual viewers than as game players.

II. B."Immersion" as Experience and "Interactivity" as Narrative

Drawing on Csikszentmihalyi's (1975) conceptualization of Flow Theory, immersion can be understood as a heightened state of presence characterized by deep psychological engagement [17]. This psychological state manifests when individuals engage with activities that provide clear objectives and immediate feedback, resulting in diminished self-awareness, altered temporal perception, and heightened pleasure. The immersive experience is particularly salient in digital environments, where users encounter compelling content that facilitates a temporary suspension of rational self-awareness. In such contexts, individuals frequently report a dissociation from physical reality, with their cognitive resources becoming exclusively focused within the virtual temporal-spatial framework [18].

Within immersive media environments, users transcend traditional audience roles to become active narrative agents [19], [20]. This transformation represents a significant departure from conventional narrative consumption patterns, as users acquire agency to influence narrative trajectories. The resultant narrative structure evolves from linear progression to complex, branching pathways, enabling unprecedented levels of audience intervention in

narrative development. This structural transformation fundamentally challenges established paradigms of narrative consumption and production.

Interactive audiovisual content fundamentally disrupts traditional linear narratives by facilitating immersive audience experiences through branching narrative structures [21]. This immersion emerges through user engagement with narrative decision points, establishing psychological connections between users and narrative text that induce what Csikszentmihalyi (1975) terms a 'flow state' [17]. Within this state, emotional engagement, selective attention, and guided perception coalesce to stimulate imaginative responses. The integration of game-specific interactivity mechanisms into audiovisual works thus represents a significant paradigm shift in narrative construction and audience engagement.

Drawing from theater studies, narrative interaction manifests across four distinct dimensions [22]. Spatial navigation enables user movement within predetermined environments. Participatory engagement facilitates plot influence through structured interaction points. Dialogic exchange promotes multi-modal communication between users and narrative elements. Finally, collaborative co-creation transforms viewers into active narrative agents, fundamentally altering traditional author-audience relationships. These dimensions collectively constitute a framework through which interactive narratives challenge conventional media boundaries.

Prior research on immersive experiences has demonstrated that live-action character portrayals in interactive narratives can enhance presence through embodied performance and parasocial interaction [19], [23]. The verisimilitude of human performances, coupled with opportunities for intimate character engagement, facilitates what Biocca (2003: 3) terms 'social presence' - the sense of 'being with another'. Drawing on these theoretical foundations, we hypothesize:

H2a: Live-action NPC imagery generates heightened immersion compared to animated alternatives.

Applying this classification to movie-game interactive narratives aligns with Calvino's concept of 'time zero' [24]. Through multiple storylines, each character's psychology, actions, and interpersonal relationships are revealed through player embodiment. Players can discover hidden plots before and after 'time zero' and explore new narrative directions. This active 'creation' by players immersed in the interactive audiovisual narrative space provides a first-person narrative immersion. From Merleau-Ponty's 'body-subject theory' perspective, audience perception of visual symbols is based on biological conditions of the 'body'. The viewing experience is not only rooted in the body but also formed through interaction between the body and viewing space. Both viewing and image spaces have causal and constitutive effects on individual sensory experiences, forming an inseparable system of experience, body, and spatial environment in a 'cognition existence' cycle [25]-[27].

In our case study LIAA, the first-person perspective aligns with Calvino's 'time zero' concept, where users embody a male protagonist who explores multiple narrative paths through interactions with six distinct female characters. This embodiment creates what Merleau-Ponty describes as a 'cognition-existence' cycle, where the user's physical presence and decision-making abilities form an inseparable system of experience, body, and spatial environment. Unlike traditional audiovisual audiences who remain in a 'present yet absent' state, LIAA users actively participate in a dynamic 'body-subject' relationship through their narrative choices. The game offers 17 possible endings, determined by users' interactions with characters of varying personalities and appearances. This interactive narrative structure transforms the traditional passive viewing experience into an active 'creation' process, where users not only maintain physical presence but also exercise control over information flow and story development. Through this first-person perspective, users engage in a continuous cycle of perception, decision-making, and narrative construction, creating a deeper level of immersion than traditional audiovisual media.

Based on the above analysis of embodied cognition and narrative agency, this study proposes its second hypothesis:

H2b: First-person perspective user interaction provides a more immersive experience.

II. C.The Subject-Object Dialectic in Uses and Gratifications Research

Uses and Gratifications Theory provides a critical framework for understanding the dynamic relationship between media consumers and content [28]. Understanding and discussing movie-game convergence requires not only focusing on technological innovation but also a deep understanding of audience needs and psychological motivations. Therefore, the motivations and behaviors of movie-game convergence users under the Uses and Gratifications theoretical perspective can draw insights from its applications in film, television, and game audience research [29].

The identity of audiovisual work audiences is specifically defined as viewers. Viewer identity is primarily established through passive reception of film content, followed by interpretation and emotional resonance. Thus, the viewing process of film audiences presents a unidirectional "production-reception" pattern. In contrast, game audiences are defined as players. Games provide opportunities for players to interact with the work, allowing users

to directly influence story progression and outcomes through their choices and actions. This interactivity grants users' greater control. Consequently, under the influence of interactivity, content reception as a player exhibits a bidirectional" production-reception-feedback" state. Considering these dual identity attributes, movie-game convergence works, combining both film/TV drama and game content reception forms, result in reshaping the audience identity that typically encompass both viewer and player attributes, making it difficult to define their identity as either one exclusively. Therefore, this research requires a neutral descriptive approach.

Therefore, the concept of "user," borrowed from consumer studies in economics and applied to communication studies, can be conceived as a proper neutral term to adopt, as it emphasizing the breakdown of traditional recipient boundaries. Unlike traditional passive audiences, users actively engage with media as both receivers and creators, having greater control over their interactions [30]. Within convergent media environments, users simultaneously occupy multiple subject positions, engaging both as viewers and players while exercising unprecedented control over their media experiences.

This dual positioning manifests through complementary modes of engagement: users both receive audiovisual content through traditional viewing practices and actively shape narratives through ludic interactions. Such hybrid engagement strengthens user-content relationships while facilitating enhanced cognitive and emotional exchanges within virtual environments. Moreover, the gamification of traditional audiovisual works has fundamentally altered their formal, aesthetic and structural properties, producing new paradigms of audience engagement that resist conventional categorization [31].

Uses and Gratifications Theory has emerged as a prominent analytical framework for examining interactive audiovisual viewing behaviors. Empirical studies have demonstrated the capacity of interactive narratives to foster enhanced empathetic responses among audiences [32]. This heightened empathy functions not merely as an emotional catalyst but as a mechanism for developing broader social competencies. The convergence of cinematic and gaming modalities, particularly through live-action narratives, introduces multiple narrative pathways that enable user autonomy, thereby intensifying emotional engagement through active participation.

Slater's (2009) research on immersive virtual reality experiences introduces two crucial conceptual frameworks: Place Illusion (PI) and Plausibility Illusion (Psi) [23]. These constructs suggest that realistic human representations in virtual environments significantly enhance presence and narrative credibility. The verisimilitude of live-action performances facilitates deeper narrative immersion and more nuanced character interactions. Users develop frequent connections with characters during their interaction with interactive media. When audience participation is closely related to the characters, they may establish parasocial relationships with them, thereby enhancing the effectiveness of understanding character behaviors. This enables interactive film audiences to move beyond passive viewing and content reception, actively participating in story development and generating more empathy [33].

Based on this theoretical framework, we propose:

H3a: LIAA satisfies users' emotional needs through its live-action NPC performances.

Research applying Uses and Gratifications Theory to gaming demonstrates significant psychological benefits, particularly regarding stress management. Empirical studies indicate that gaming mechanics facilitate emotional regulation through structured engagement [34]. Further investigations suggest correlations between therapeutic gaming outcomes and enhanced psychological wellbeing [35]. Moreover, immersive gaming experiences have been shown to facilitate post-work recovery processes [36]. In the specific context of interactive narratives, research on 'Black Mirror: Bandersnatch' reveals that narrative agency contributes to stress reduction through heightened immersion [37].

Based on the above literature analysis, this study proposes the second point of its third hypothesis:

H3b: LIAA satisfies users' stress relief needs through its interactive gaming mechanics.

III. Methodology

This empirical investigation employs a quantitative approach, utilizing questionnaire data to examine user engagement with 'Love Is All Around' (LIAA). The study focuses on three key dimensions: identity construction, immersive experience, and gratification of social-psychological needs. The research addresses the following questions:

RQ1: To what extent do LIAA users maintain their primary identification as traditional media consumers?

RQ2: How do technological affordances - specifically live-action non-player characters (NPCs) and first-person perspective - contribute to user immersion?

RQ3: Through the theoretical framework of Uses and Gratifications, what social-psychological gratifications are fulfilled through LIAA's hybrid media format?

The investigation employs a structured questionnaire designed to measure these three dimensions through validated scales. This methodological approach enables systematic analysis of how convergent media formats interact with user identity formation and need gratification, contributing to both theoretical understanding and practical application in convergent media development.

Drawing from existing literature and preliminary observations, we propose the following hypotheses:

H1: Users predominantly maintain viewer-based identification patterns rather than gamer-based identities.

H2a: The implementation of live-action NPCs enhances immersive engagement.

H2b: First-person perspective mechanics facilitate deeper immersive experiences.

H3a: Live-action performative elements satisfy users' emotional gratification needs.

H3b: Interactive mechanics fulfil stress-management gratification needs.

The theoretical framework can be conceptualized as follows, demonstrating the relationship between immersive affordances and gratification outcomes:

The analytical framework examines three interconnected dimensions of LIAA engagement: user identity formation, mechanisms of immersive experience, and gratification of social-psychological needs through the Uses and Gratifications paradigm (see Figure 1). Following Livingstone's (2018) conceptualization of media engagement, the model illustrates how immersive affordances (H2) facilitate specific gratification outcomes (H3).
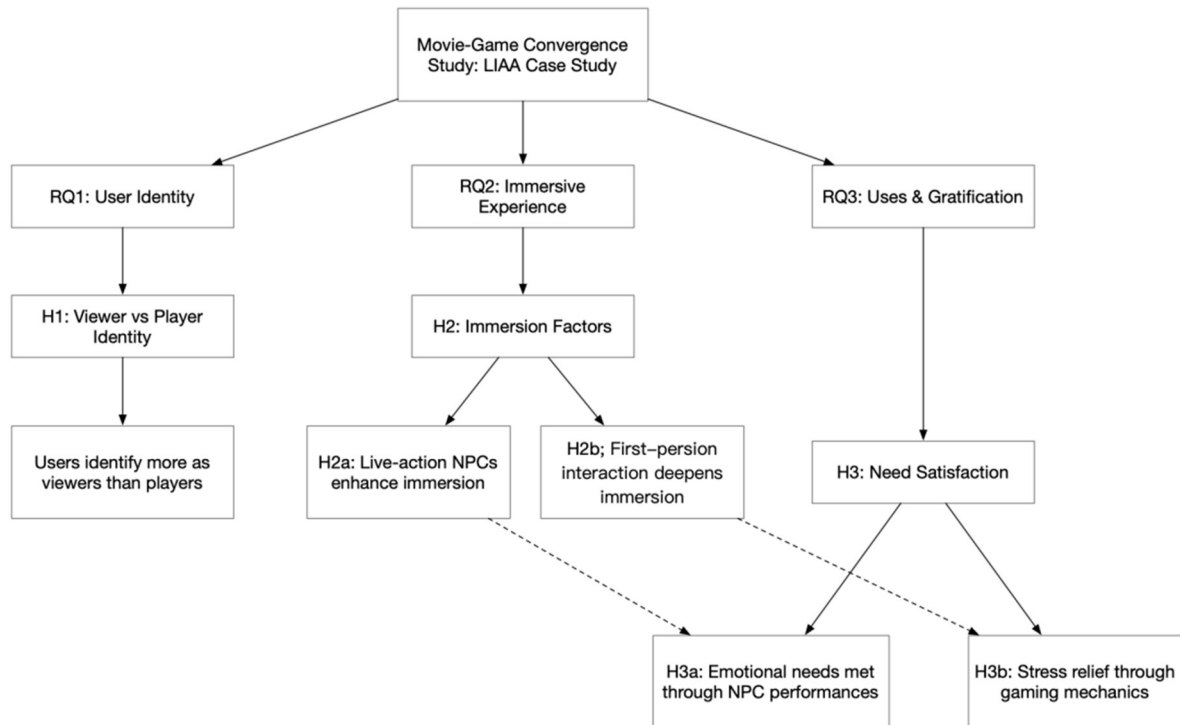

Figure 1: Research model

Drawing upon this theoretical framework, we structured the questionnaire instrument to investigate three primary dimensions below Table 1:

Table 1: Question Design Dimensions

Questionnaire Dimensions	Corresponding Questions
Demographic Characteristics	1-3
User Identity Recognition in "LIAA"	4-11
Level of Interactive Engagement in "LIAA"	12-20
Satisfaction of Social-Psychological Needs in "LIAA"	21-22

III. A. Data collection and description

To ensure methodological rigour in this audience research, participant recruitment followed a dual verification process, given LIAA's status as a premium gaming product. Distribution channels comprised LIAA's official STEAM and EPIC communities, complemented by social media discussion forums. The research design incorporated verification mechanisms to authenticate respondents' direct engagement with the game, facilitating the exclusion of invalid responses.

Data collection employed an online survey instrument targeting Chinese users through a stratified sampling approach via Wenjuanxing. Distribution channels encompassed dominant social media platforms (Douyin, Weibo, WeChat), gaming-focused content creators on Bilibili, and dedicated player communities on QQ and WeChat. The survey, administered in Chinese to ensure linguistic and cultural validity, yielded 564 responses, with 510 meeting validity criteria (90.4% completion rate).

The sample demographics revealed significant gender asymmetry (99.2% male, 0.8% female), with age concentration in the 18-24 cohort (76.1%). The predominant demographic comprised students (68.4%) and single individuals (94.5%) (See Table 2). These characteristics correspond with LIAA's market positioning as a male-oriented interactive romance narrative, suggesting strong alignment between the sample and target demographic.

Table 2: Sample Demographics

Characteristics	Item	n	%
Gender	Male	506	99.2%
	Female	4	0.8%
Age	Under 18	39	7.6%
	18-24	388	76.1%
	25-34	77	15.1%
	35-44	6	1.2%
	45 and above	0	0%
Occupation	Public Institution	39	7.6%
	Private Sector	73	14.3%
	Freelancer	49	9.6%
	Student	349	68.4%
Relationship Status	Single	482	94.5%
	In a Relationship	16	3.1%
	Married	12	2.4%

III. B. Reliability and Validity Tests

This study employed reliability analysis to evaluate the internal consistency of the measurement instrument. Following established methodological protocols in social science research, Cronbach's alpha coefficient was utilized to assess scale reliability. The conventional threshold values (α = 0.7-0.8 indicating acceptable reliability; α > 0.8 indicating strong reliability; α > 0.9 indicating excellent reliability) guided our interpretation. Statistical analysis was conducted using SPSS 27.0, examining the overall questionnaire structure, user interaction engagement metrics, and uses and gratifications dimensions.

The analysis yielded an overall reliability coefficient (α) of 0.907 across all 36 questionnaire items, demonstrating excellent internal consistency (Table 3).

Table 3: Reliability Analysis Results

Reliability Statistics	
Cronbach's Alpha	N of items
0.907	36

To establish construct validity, we conducted factor analysis using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The KMO index ranges from 0 to 1, with values between 0.7-0.8 indicating good factorial simplicity, and values exceeding 0.8 suggesting excellent sampling adequacy.

As shown in Table 4, the obtained KMO value of 0.895 indicates robust factorial validity, while Bartlett's test of sphericity (p < 0.05) confirms significant inter-item correlations, supporting the appropriateness of factor analysis.

These psychometric indicators provide strong evidence for the reliability and validity of our measurement instrument, establishing a robust foundation for subsequent analyses.

Table 4: Bartlett's Test of Sphericity

KMO Value	Approx.Chi-Square	Bartlett's Test	
		df	Sig.
0.895	6687.495		
		300	0.0000

IV. Analysis and Findings

IV. A. The Dominance of Ludic Identity in Movie-Game Convergence

This study explores the unique dual identity of users in movie-game convergence media, where individuals simultaneously act as both players and viewers. While player identity develops through interaction with virtual avatars and role-playing elements, viewer identity manifests through traditional narrative engagement. This hybrid identity framework represents a novel approach to media engagement, challenging conventional theoretical models.

Our empirical findings reveal nuanced patterns of user identification. When queried about their relationship with traditional visual media, 42.2% of respondents selected a 'neutral' position, suggesting an ambivalent relationship with conventional viewing practices. This ambivalence is further evidenced by low engagement metrics, with 38% reporting rare viewing habits and 32% consuming less than one hour of traditional visual media daily. These findings suggest that users of convergent media products like 'Love Is All Around' do not primarily identify as traditional media consumers, challenging assumptions about the transfer of established viewing practices to convergent formats (see Figure 2).
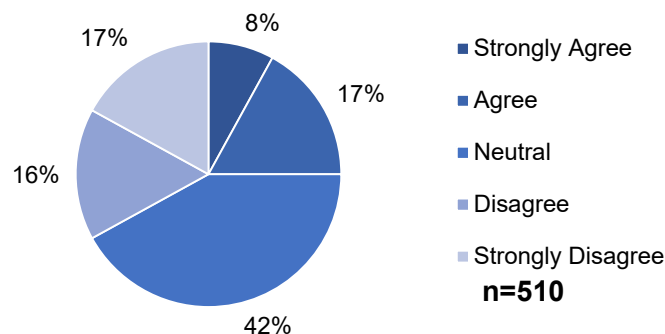

Figure 2: Are you a TV/movie fan in daily life?

Traditional film and television works position audiences as passive observers, establishing what Mulvey (1975) terms a 'voyeuristic gaze' through camera-mediated perspectives [38]. This spectatorship model creates a distinct separation between viewers and the visual content they consume. However, movie-game convergence media fundamentally disrupts this established viewing paradigm by facilitating dual viewer-player identities, generating what we might term a 'participatory aesthetic cycle'. Within this emerging media form, the conventional boundaries between user and virtual environment become increasingly permeable, as interactive mechanisms transform passive spectatorship into active narrative engagement.

This media convergence represents a significant reconfiguration of traditional audience-text relationships. While both films and games foster audience identification, they achieve this through distinct mechanisms: games through embodied interactivity and films through narrative empathy [7]. In 'Love Is All Around', this convergence manifests through first-person perspective mechanics that position players as embodied protagonists within the narrative space. The implementation of consistent eye-level camera work enhances spatial presence while foregrounding experiential identification.

Consequently, interactivity emerges as a crucial determinant in audience identity formation within convergent media. Through active participation, users develop agency and control that facilitates deeper psychological investment. This interactive framework enables fluid identity transitions, allowing users to navigate between spectatorial and ludic modes of engagement.

In movie-game convergence works like "Love Is All Around," data indicates that users tend to define themselves more as players. Among surveyed users, 65.5% have previously experienced similar movie-game convergence works, such as "Black Mirror: Bandersnatch," "The Invisible Guardian," and "Dragon Cave Mystery" (see Figure 3).

This suggests that movie-game convergence works have established a considerable market scale and successfully cultivated a user base that appreciates their unique aesthetic style and deep interactive experiences.
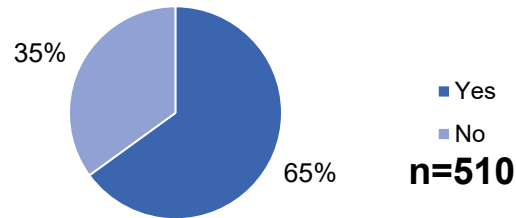

Figure 3: Previous Experience with Movie-Game Convergence Works

This analysis reveals the transformative potential of interactive mechanisms in facilitating deep user engagement with virtual environments. Through interactive narrative participation, users develop sophisticated cognitive identification with game characters, fundamentally shifting from passive observers to active participants. Our empirical data demonstrates that the user demographic exhibits limited characteristics typically associated with traditional audio-visual media consumption patterns, particularly evidenced by low daily viewing frequencies. This suggests that within the gaming experience, users predominantly adopt an actively participatory stance rather than maintaining traditional spectatorial positions, engaging in narrative deconstruction through both perceptual and behavioral modalities.

The user identity composition in LIAA represents a significant departure from initial theoretical propositions regarding movie-game convergence media. While conceptualized as a narrative-driven interactive experience incorporating cinematic elements, empirical evidence suggests users predominantly engage through ludic frameworks. Despite the integration of cinematic techniques and live-action performances, the interactive architecture fundamentally shapes user-content relationships. The primacy of game mechanics and player agency over passive spectatorship creates an experience where users actively construct rather than merely consume narrative content. This finding directly challenges hypothesis H1, which posited stronger viewer identification over player identity. Instead, the data demonstrates the centrality of gaming modalities within the LIAA user experience, suggesting a need to reconceptualize traditional frameworks of media engagement within convergent forms.

IV. B. The Catalytic Effects of Visual Reality on Emotional Projection and Connection

The use of first-person perspective with live-action elements creates a unique viewing experience that bridges digital and natural human perception. This approach serves two key purposes: it connects users directly to the virtual environment while deepening their psychological engagement with the narrative.

In 'Love Is All Around', this combination of live actors and first-person perspective creates an authentic experience that breaks down barriers between virtual and real interactions. Unlike traditional third-person or animated content, this approach enables more genuine emotional connections through natural performances, facial expressions, and body language, particularly effective in romantic storytelling.

Analysis of user responses reveals significant engagement with the first-person perspective mechanic, with 31.4% of respondents strongly agreeing that it facilitated character embodiment. This internally focalized narrative approach demonstrates efficacy in collapsing the traditional distance between user and virtual environment, enabling direct character interaction within the diegetic space. Within LIAA's framework, users inhabit the protagonist's perspective from the narrative onset, engaging with plot progression through this embodied viewpoint. The first-person visual syntax thus functions as a crucial mediator of player-avatar identification, effectively merging user perception with character perspective. This embodied presence operates bidirectionally, facilitating both identity construction and emotional engagement while heightening cognitive involvement with the narrative architecture.

The game's structural foundation derives from Japanese dating simulation games (bishōjo games or 'galgame'), a genre that emerged in the 1990s characterized by text-based narrative progression and branching dialogue choices. These games typically position players as male protagonists navigating romantic interactions with multiple

female characters, with narrative outcomes determined by player decision points [39]. This generic framework provides LIAA with established mechanics for facilitating user agency while maintaining narrative coherence.

Survey data reveals that live-action imagery in LIAA significantly enhanced user immersion compared to anime-style games, with 47.5% of respondents strongly agreeing with this assessment. While maintaining traditional dating simulation mechanics, LIAA's implementation of live actors facilitates more nuanced character interactions, mitigating the phenomenon of 'cyber heartbreak' commonly associated with virtual relationships. The narrative architecture presents six distinct female characters, each embodying specific personality archetypes that shape player interactions and emotional engagement.

The game's first-person perspective mechanics, coupled with favorability metrics, structure player progression through branching narratives determined by interactive choice points. This design framework enables the construction of affective fantasies predicated on reciprocal emotional engagement, facilitated by the authenticity of live-action performances.

Significantly, 38.8% of respondents strongly agreed that live-action character portrayals enhanced their emotional connection to the game's characters. This finding suggests that live-action implementation reduces cognitive distance compared to animated representations. The multimodal affordances of live performances - including micro-expressions, embodied gestures and vocal modulation - generate more sophisticated emotional resonance than their animated counterparts, which remain constrained by the limitations of virtual representation.

As shown in Table 5, the empirical data demonstrates three key metrics of user engagement: 31.4% reported protagonist embodiment through first-person perspective, 47.5% indicated enhanced immersion via live-action footage, and 38.8% acknowledged stronger emotional connections with characters. These findings support hypothesis 2a regarding the immersive capacity of first-person live-action footage. The synthesis of perspective-driven narrative strategies and live-action implementation not only augments presence and emotional resonance but facilitates fluid interactive experiences. This immersive architecture derives from both representational authenticity and active user participation, positioning movie-game convergence as a distinct aesthetic modality that transcends traditional entertainment paradigms.

Table 5: User Experience with Live-action NPC imagery

Dimension	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Live-action NPC imagery	Through first-person perspective interaction with live-action images in the game, you felt like you became the main character	31.4%	28.2%	28.0%	6.5%	5.9%
	Compared to similar anime style games, the live-action images in this game gave you a stronger sense of immersion	47.5%	33.7%	15.3%	2.5%	1%
	The live-action format made you feel like you were falling in love with the game characters	38.8%	34.1%	23.1	2.7%	1.2%

IV. C. Enhanced User Agency in Interactive Narratives

This study demonstrates how 'Love Is All Around' significantly reconfigures traditional media engagement through its sophisticated interactive narrative mechanisms. Drawing on empirical data, we observe how the game's first-person perspective framework establishes clear narrative trajectories whilst facilitating user agency through dynamic choice architectures. This interactive design represents a marked departure from conventional audio-visual consumption patterns, fundamentally transforming passive spectatorship into active narrative participation.

The theoretical underpinnings of this transformative experience can be understood through experiential immersion. This conceptual framework encompasses both spatial presence within the virtual environment and psychological flow states. The latter, building on Csikszentmihalyi's (1975) flow theory, describes optimal engagement states characterized by deep concentration and temporal distortion. Our analysis suggests that users achieve profound immersive experiences when three key conditions are met: clearly defined objectives, immediate feedback mechanisms, and balanced challenge-skill dynamics [40], [41].

This immersive framework is substantially enhanced through the strategic implementation of first-person perspective mechanics. By closely approximating natural perceptual processes, this design approach simultaneously reinforces user agency and deepens narrative engagement [42]. The perspective mechanics facilitate direct environmental control whilst fostering emotional resonance through embodied interaction.

Significantly, within this interaction-centric media form, first-person mechanics do not diminish virtual world identification but rather augment immersive potential through enhanced perceptual immediacy [41].

The survey data reveals that 45.5% of respondents 'strongly agreed' that choosing different narrative paths enhanced their sense of immersion, suggesting the centrality of branching narratives in facilitating user engagement. This finding aligns with previous research on interactive storytelling, demonstrating how choice-based narratives function as crucial mechanisms for user immersion in convergent media forms. Through the lens of flow theory, this interactive architecture facilitates optimal engagement by providing clear objectives and immediate feedback systems, effectively balancing user skill levels with narrative challenges.

The data further suggests that maintaining flow states requires sophisticated feedback mechanisms that reinforce user agency. LIAA implements this through a dual-layer approach: at the narrative level, through carefully constructed plot architectures that maintain user interest, and at the mechanical level, through strategic deployment of choice nodes and interaction patterns. This systematic approach to user engagement exemplifies experiential involvement, where narrative and mechanical elements converge to create sustained immersive experiences.

The empirical data demonstrates a strong correlation between user agency and character engagement, with 49.2% of respondents strongly agreeing that narrative choices enhanced character affinity (see Table 6). This finding aligns with previous research on parasocial interaction in digital media, suggesting that active decision-making facilitates deeper psychological investment in character relationships. The interactive mechanisms, particularly the NPC favorability system, create what terms 'ludic involvement', wherein players forge meaningful connections through systematic engagement with game mechanics. This process is especially evident in moral choice scenarios, where users must navigate complex interpersonal dynamics.

The data further illuminates the relationship between challenge calibration and user engagement through the lens of flow theory. This is evidenced by the 48.2% of respondents who strongly agreed that their choices significantly impacted narrative progression (Table 6). This data shed the lights on two findings: first, users generally find the game's challenge level matches their skill level; second, users strongly identify with their leading role in narrative development.

This study demonstrates how user agency manifests through the interactive narrative mechanisms inherent in movie-game convergence media. Through strategic deployment of choice architecture at critical narrative junctures, these works facilitate co-creative storytelling processes. Users actively participate in narrative construction, with their decisions not only determining plot trajectories but also reinforcing their subject position within the diegetic space. Thus, the provision and actualization of choice constitute fundamental expressions of user agency.

Analysis of empirical data reveals significant user engagement with interactive mechanisms. As evidenced in Table 7, 52.7% of respondents strongly agreed that LIAA elicited greater consideration of character reactions compared to traditional anime-style games. This heightened engagement suggests that live-action interactive media facilitates more dynamic user experiences and authentic character interactions. The data underscores how live-action implementation enhances both narrative involvement and exploratory behavior, distinguishing these hybrid forms from conventional gaming paradigms.

Table 6: User Experience with Interactive Mechanisms

Dimension	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Game Interactive Mechanism	Choosing different story paths enhanced your sense of immersion	45.5%	35.5%	14.9%	3.1%	1%
	Choosing different story paths increased your liking for the characters	49.2%	37.5%	11.2%	1.8%	0.4%
	Your choices of different story paths played an important role in story development	48.2%	34.5%	13.3%	3.5%	0.4%

Table 7: User Engagement Level in the Game

Dimension	Item	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Overall Interactive Process	Compared to similar anime style games, you were more considerate of how game characters would react to your choices	52.7%	33.7%	11.4%	2.2%	0%

Interacting with live-action footage as the protagonist made you more proactive in controlling the story direction	51.4%	36.9%	10%	1.8%	0%
Interacting with live-action footage as the protagonist motivated you to explore different endings	52.7%	27.5%	13.9%	4.7%	1.2%

The empirical findings support Hypothesis 2b regarding the immersive capacity of interactive mechanisms. Survey data indicates that 81% of users (45.5% strongly agreeing, 35.5% agreeing) reported enhanced immersion through narrative choice, demonstrating the efficacy of convergent media mechanics in facilitating flow states. This immersive effect operates through three primary channels: firstly, choice mechanics fostering character attachment (49.2% strongly agreeing); secondly, user agency in narrative progression (48.2% strongly agreeing); and finally, optimized flow parameters encompassing clear objectives, feedback loops, and challenge calibration. These findings provide robust support for Hypothesis 2a regarding the immersive potential of interactive narrative mechanisms.

IV. D. Cognitive Stimulation and Emotional Release

Drawing on uses and gratifications theory, this study examines three key dimensions of user need satisfaction in interactive media: emotional-cognitive engagement, social integration, and stress mitigation. Previous scholarship has established significant correlations between live-action non-player character (NPC) representations and user psychological engagement [23], [32]. Moreover, empirical studies have demonstrated the efficacy of digital gaming interfaces in emotional regulation and stress reduction [34], [35]. Building on this theoretical framework, we propose two hypotheses regarding 'Love Is All Around': firstly, that its live-action NPC implementation facilitates enhanced emotional-cognitive engagement (H3a); and secondly, that its interactive mechanics enable effective stress mitigation (H3b). The following analysis evaluates these propositions through systematic examination of user psychological satisfaction across the aforementioned dimensions.

IV. D. 1) User Satisfaction of Emotional and Cognitive Needs through Live-Action Format

Analysis of user need satisfaction through the live-action format reveals significant patterns in audience engagement. As shown in the Table 8, the data demonstrate highest satisfaction in cognitive-exploratory dimensions, with 'curiosity about new things' achieving the highest mean score (M=4.08, SD=1.168). This is closely followed by emotional gratification metrics, specifically 'fantasy about romantic relationships' (M=4.04, SD=1.188) and 'diversion from negative emotions' (M=4.03, SD=1.214). These findings suggest the live-action format's particular efficacy in facilitating both cognitive engagement and emotional resonance.

The high satisfaction scores in emotional dimensions, particularly regarding romantic fantasy, align with previous research on media gratification whilst extending understanding of live-action's specific affordances in emotional content delivery. However, the format demonstrated notably lower efficacy in social integration metrics ('broadening horizons and improving values' M=3.07; 'gaining conversation topics and integrating into groups' M=3.20; 'improving real-life interpersonal relationships' M=3.20), suggesting limitations in facilitating social gratifications.

Table 8: Mean User Need Satisfaction Scores for Live-Action Format in "Love Is All Around"

Dimension	Item	Median (N=510)	Mean±SD (N=510)
Emotional and Cognitive Needs	Curiosity about new things	4.00	4.08±1.168
	Learning interpersonal skills	4.00	3.54±1.148
	Fantasy about romantic relationships	4.00	4.04±1.188
Social Relationship Integration Needs	Broadening horizons and improving values	3.00	3.07±1.276
	Gaining conversation topics and integrating into groups	3.00	3.20±1.167
	Improving real-life interpersonal relationships	3.00	3.20±1.148
Stress Relief Needs	Escaping real-life pressure	4.00	3.74±1.106
	Diversion from negative emotions	4.00	4.03±1.214

Analysis of the empirical data reveals that LIAA's live-action format demonstrates significant efficacy in satisfying users' emotional and cognitive needs. The game's innovative movie-game convergence model integrates cinematic narrative with interactive gameplay mechanics, facilitating novel user experiences. Through its photorealistic

presentation, LIAA generates enhanced plausibility illusion (Psi) compared to conventional animated interfaces, facilitating heightened perceptions of authenticity and immersion. This representational strategy not only expands the work's aesthetic dimensions but also catalyzes users' exploratory behaviors.

The live-action format exhibits particular efficacy in addressing users' romantic fantasy needs - a distinctive attribute of this convergent media form. Empirical evidence suggests that live-action footage offers substantial advantages in emotional engagement and psychological projection, particularly within romantic narratives. Live performers communicate nuanced emotional information through micro-expressions, embodied performance, and naturalistic dialogue, generating more sophisticated affective experiences for users.

The data provides robust support for Hypothesis 3a regarding LIAA's capacity to satisfy emotional-cognitive needs through its live-action implementation. Quantitative analysis demonstrates high mean scores for 'curiosity satisfaction' (M=4.08) and 'romantic fantasy' (M=4.04), indicating significant efficacy in meeting user psychological needs. These findings suggest that live-action movie-game convergence effectively facilitates both cognitive engagement and emotional resonance, whilst maintaining optimal arousal levels.

IV. D. 2) User Satisfaction of Stress Relief Needs through Game Interactive Mechanisms
Through analyzing how game interactive mechanisms satisfy users' stress relief needs, data from Table 9 shows that the "curiosity about new things" dimension achieved a mean score of 4.17 (SD=1.037), indicating that the interactive mechanisms in "Love Is All Around" effectively fulfill users' cognitive exploration needs. In the stress relief needs dimension, both "escaping real-life pressure" (M=3.82, SD=1.051) and "diversion from negative emotions" (M=4.14, SD=1.112) received high scores, and compared to the live-action format (M=3.74 and M=4.03), the game's interactive mechanisms demonstrated stronger effectiveness in alleviating user stress. However, in the social relationship integration needs dimension, indicators including "broadening horizons and improving values" (M=3.17, SD=1.248), "gaining conversation topics and integrating into social groups" (M=3.30, SD=1.136), and "improving real-life interpersonal relationships" (M=3.27, SD=1.169) showed relatively lower satisfaction levels. This phenomenon may be attributed to "Love Is All Around" being a work that emphasizes individual immersive experience and lacks social interaction design elements.

Table 9: Mean User Need Satisfaction Scores for Interactive Gaming Mechanisms in "Love Is All Around"

Dimension	Item	Median (N=510)	Mean±SD (N=510)
Emotional and Cognitive Needs	Curiosity about new things	4.00	4.17±1.037
	Learning interpersonal skills	3.00	3.36±1.098
	Fantasy about romantic relationships	4.00	3.71±1.022
Social Relationship Integration Needs	Broadening horizons and improving values	4.00	3.17±1.248
	Gaining conversation topics and integrating into groups	3.00	3.30±1.136
	Improving real-life interpersonal relationships	3.00	3.27±1.169
Stress Relief Needs	Escaping real-life pressure	4.00	3.82±1.051
	Diversion from negative emotions	4.00	4.14±1.112

According to emotion management theory, individuals tend to select media that helps them achieve optimal arousal levels, avoiding unfavorable emotional states such as boredom (low arousal) and stress (high arousal) [43]. The interactive gaming mechanisms in LIAA provide moderate experiential difficulty, allowing users to achieve different endings based on their choices. Users can select appropriate gaming activities according to their emotional state, thereby diverting attention from real-life pressures and facilitating positive emotional transformation.

Furthermore, the game's interactive mechanisms require sustained attention and action from users. This high level of engagement and sense of control enables users to experience active participation and mastery within the game world, effectively alleviating real-life stress and negative emotions. Additionally, the interactive mechanisms of the case allow users to experience various character interaction scenarios in a virtual environment. This role-playing and scenario simulation provides users with a temporary emotional outlet, enabling brief psychological relief from real-life pressures.

Through the analysis of the above data, this study validates Hypothesis 3b: "Love Is All Around satisfies users' stress relief needs through its interactive gaming mechanisms." The data indicates that within the gaming interactive mechanisms, "curiosity about new things" and "diversion from negative emotions" achieved mean scores of 4.17 and 4.14 respectively, demonstrating high levels of user satisfaction in these aspects. The interactive gaming mechanisms require sustained user attention and action, helping users focus through high levels of engagement

and decision-making autonomy. This enables users to experience active participation and control within the game world, effectively diverting attention from real-life pressures and achieving stress relief effects.

V. Conclusion

This empirical investigation examines the emergent phenomenon of movie-game convergence media through uses and gratifications theory [28], utilizing 'Love Is All Around' as a case study. Quantitative analysis of survey data (N=510) reveals how hybrid format's dual modalities - live-action presentation and interactive mechanics - satisfy distinct user psychological needs across emotional-cognitive, social integration and stress relief dimensions.

The analysis demonstrates a significant theoretical advancement in understanding gratification patterns between modalities. Live-action components demonstrate superior efficacy in emotional-cognitive need satisfaction (M=4.08 for curiosity; M=4.04 for romantic fantasy), while interactive elements excel in stress mitigation (M=4.17 for novelty engagement; M=4.14 for negative emotion diversion). This bifurcated gratification structure introduces novel psychological mechanisms specific to hybrid media engagement, extending classical uses and gratifications frameworks.

The study makes several key theoretical contributions to uses and gratifications scholarship. By delineating the discrete components within convergent media and their independent contributions to user gratification, the research establishes a new analytical framework for understanding psychological architecture in hybrid media formats. This framework builds upon and extends existing theoretical models, offering a more nuanced understanding of contemporary media consumption patterns.

The findings present significant implications for convergent media development, establishing an empirically-validated model through LIAA's successful implementation of modality-specific gratification mechanisms. The data emphasizes the critical importance of maintaining balanced gratification architecture across modalities, particularly in the integration of emotional authenticity through live-action elements with stress-mitigation via interactive mechanics.

Further scholarly investigation into social integration affordances in convergent media appears warranted, given the relatively modest satisfaction metrics in this domain. Additionally, longitudinal studies examining the evolution of gratification patterns in maturing hybrid formats could yield valuable insights into emerging patterns of user engagement and psychological satisfaction, potentially revealing new theoretical frameworks for understanding contemporary media consumption.

Funding

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