

The influence of connotation ideology on audience cognition in games

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Abstract: This study examines how ideological content in electronic games influences player cognition and behavior, combining quantitative surveys (N=484) and qualitative interviews (n=8) within China's gaming ecosystem. The research aims to (1) assess players' recognition of ideological content, (2) analyze behavioral and attitudinal changes, and (3) evaluate how media dissemination channels moderate these effects. Methodologically, the study employs an exploratory sequential mixed-methods design, integrating validated psychometric scales (Content Sensitivity, Subjective Sensitivity, Behavioral Sensitivity, Environmental Sensitivity) with thematic analysis of industry expert interviews. Quantitative results reveal significant positive correlations between content exposure and cognitive/behavioral outcomes, with environmental factors (social media) amplifying ideological reception. Qualitative findings demonstrate that players actively reinterpret cultural narratives through participatory practices, though platform algorithms and policy constraints shape these processes. The study contributes novel theoretical frameworks: ludic social capital (stratified in-game status systems) and regulatory prototyping (policy-driven innovation constraints). Key conclusions highlight the dialectical nature of game-based ideological influence where designer intent, player agency, and platform architectures interact dynamically.

Keywords: *Game cognition, Ideological transmission, Media effects, Participatory culture, Regulatory governance.*

1. Introduction

Video games have evolved from simple entertainment mediums into complex narrative and interactive experiences that convey ideological, cultural, and social messages [1]. Unlike traditional media, games engage players through active participation, allowing for deeper cognitive and emotional involvement [2]. This interactivity raises critical questions about how games influence players' perceptions, attitudes, and behaviors, particularly when they embed ideological connotations whether explicitly or implicitly [3]. This research investigates the extent to which players recognize and internalize ideological content in games and whether such content leads to measurable changes in their real-world attitudes and behaviors [4]. Additionally, it explores how different information dissemination channels (authoritative media, we-media, and pan-media) affect the audience's acceptance and cognition of game-based ideologies, further influencing their social circles [5].

Despite the growing body of research on media effects and gaming culture, significant gaps remain in understanding how ideological content in games translates into cognitive and behavioral changes [6]. Previous studies have primarily focused on the immediate psychological effects of gaming, such as aggression prosocial behavior [7]. While largely neglecting the long-term ideological influence of games as a medium of persuasion [1]. Moreover, while some scholars have examined the role of media in shaping public opinion [8] few have explored how games as an interactive and immersive medium differ from traditional media in ideological transmission. The existing literature also lacks comparative analyses of how different media channels (official media vs. user-generated content) influence the

reception of game-based ideologies. This study aims to fill these gaps by examining the cognitive and behavioral impacts of ideological content in games and assessing how media dissemination channels shape audience perceptions.

This research contributes to the ongoing debates in media studies, game studies, and communication theory by addressing three key questions: (1) Do players recognize and retain ideological messages embedded in games? (2) Does exposure to such content lead to attitudinal or behavioral changes in players? (3) How do different media channels (authoritative media, we-media, pan-media) affect the spread and acceptance of game-based ideologies? By answering these questions, this study provides a more nuanced understanding of games as vehicles of ideological influence, extending beyond traditional media effects models. The findings will have implications for game developers, policymakers, and media scholars interested in the persuasive potential of interactive entertainment.

Three critical theoretical advances emerge from this research. This research expands game-based ideological transmission understanding through the combination of media effects principles [9] and persuasive technology frameworks and interactive storytelling models [10]. In the field of game studies previous research has analyzed games as cultural items [11] but very few investigations have applied systematic methods to understand how games affect ideological comprehension. This research analyzes actual changes in attitudes and behaviors which result from game content to prove game-related influences above hypothetical speculation. The study includes active comparative research to show how official news outlets and social media, and streaming platforms particularly affect ideological reception patterns. This research yields essential insights for understanding current digital persuasive dynamics because games alongside participatory media increasingly shape modern strategy.

This research approach enables better comprehension of gaming as an ideological platform while revealing the ways messages flow between multiple media networks. This investigation adds to academic conversations while offering insights which guide real-world applications in video game design and digital policy and media communication practices. The growth of games as a prominent cultural and communicative power increases the critical need for researchers and practitioners to understand their cognitive and behavioral outcomes.

The structure of this paper is organized as follows. Section 1 introduces the research problem, gaps in the literature, and the study's objectives. Section 2 reviews existing scholarship on ideological transmission in games, media effects, and information dissemination channels. Section 3 outlines the research methodology, detailing the experimental design, survey instruments, and analytical frameworks. Section 4 presents the findings, analyzing player recognition of ideological content, behavioral changes, and the impact of different media channels. Section 5 discusses the implications of these findings, comparing them with prior research and highlighting theoretical and practical contributions. Finally, Section 6 concludes the study, summarizing key insights and suggesting directions for future research.

2. Literature Review

Scholarly interest in the meeting point of video games with ideology and audience cognition levels rises as gaming becomes more complex in storytelling and interactivity for message persuasion [8, 12]. Gameplay drives user engagement through active involvement which creates stronger mental and emotional bonds [13]. The interactive nature of games creates numerous critical questions about how ideological game content affects player perceptions together with their attitudes and resultant behavioural responses. The research community initially studied gaming effects through evaluations of aggressive behaviour [14] and positive social impact but now focuses on games as ideological distribution platforms [15]. Researchers continue to face unanswered questions about how game mechanics modify cognitive processes while examining how distribution platforms affect cognitive outcome delivery.

Media connotation theory in gaming develops from major media persuasion theories such as cultivation theory [16] and framing theory [17]. Media content exposure duration according to cultivation theory creates modifications in viewers' real-world beliefs and the framing theory evaluates how media storytelling impacts interpretation. The scholarly perspective shows how games contain interactive elements which either support or break dominant ideologies [18]. Ideological critiques to challenge bureaucracy and authoritarianism while prompting players to analyse moral and political challenges [19]. The challenges conventional war stories by letting players experience civilian survival instead of combat-focused experiences to create acceptance and mind engagement about conflicts [20]. Through their interactive nature games work as rhetorical mechanisms that help players enhance their ideological understanding.

The study of how ideological content affects cognitive patterns and behavioural responses in games has not achieved clear cohesion. Research shows games may influence political attitudes [21] while social beliefs can change but player freedom together with interpretive flexibility prevents direct ideological manipulation [22]. The ongoing discussion about media impact research shows how message-pathways interact with audience participation according to Hall [23, 24]. An investigation into how influential media distribution platforms such as authoritative news outlets, social media (we-media), and streaming platforms (pan-media) influence ideological reception in games remains underdeveloped in current gaming studies literature. The study of traditional media effects demonstrates that message reception depends heavily on source credibility and framing [13] yet research explores minimal how gaming environments and their influencer dynamics shape these processes [25].

Participatory culture [26] and algorithmic media ecosystems [27] make it harder for ideological content to transmit through games. Through player-made content and real-time streams and virtual discussions games could spread their ideological meaning past their initial creators' intentions thus forming multiple and sometimes conflicting interpretations [28, 29]. The Last of Us Part II released in 2020 generated widespread social media discussion where audiences used their platforms both in Favor and against its core storytelling elements [30]. The growing importance of studying media channels as ideological transmitters becomes essential because engagement-driven algorithmic systems dominate online spaces [31, 32].

This review highlights key gaps in the literature: (1) a lack of systematic research on how players recognize and internalize ideological content in games, (2) insufficient empirical evidence on whether such content leads to lasting attitudinal or behavioural changes, and (3) limited understanding of how different media channels shape ideological reception. Addressing these gaps requires an interdisciplinary approach, integrating insights from game studies, media effects research, and communication theory. By doing so, this study aims to provide a more comprehensive understanding of games as ideological mediums and their broader societal impact.

2.1. Theoretical Framework

The research combines several different theoretical approaches to understand how games affect audience understanding through incorporation of ideological content. Symbolic Interactionism (Macionis) demonstrates that game interactions produce shared meaning which transforms how players view virtual communities alongside real-life environments. Through Uses and Gratifications Theory researchers explore how players seize control to actively participate in gaming activities that address psychological and social wants including competition and escaping reality. Media Alienation Theory examines how prolonged gaming could create social detachment by recreating findings from internet addiction research Cognitive Theory shows how gameplay organizes information processing, so players receive repeated ideological messages through immersive settings. Conceptual Metaphor Theory (Lakoff) examines how games apply symbolic cultural motifs to transmit ideological content through metaphor-based cognitive shaping. These research approaches create a thorough mechanism to study ideological impact through video games by understanding how player autonomy interacts with game content.

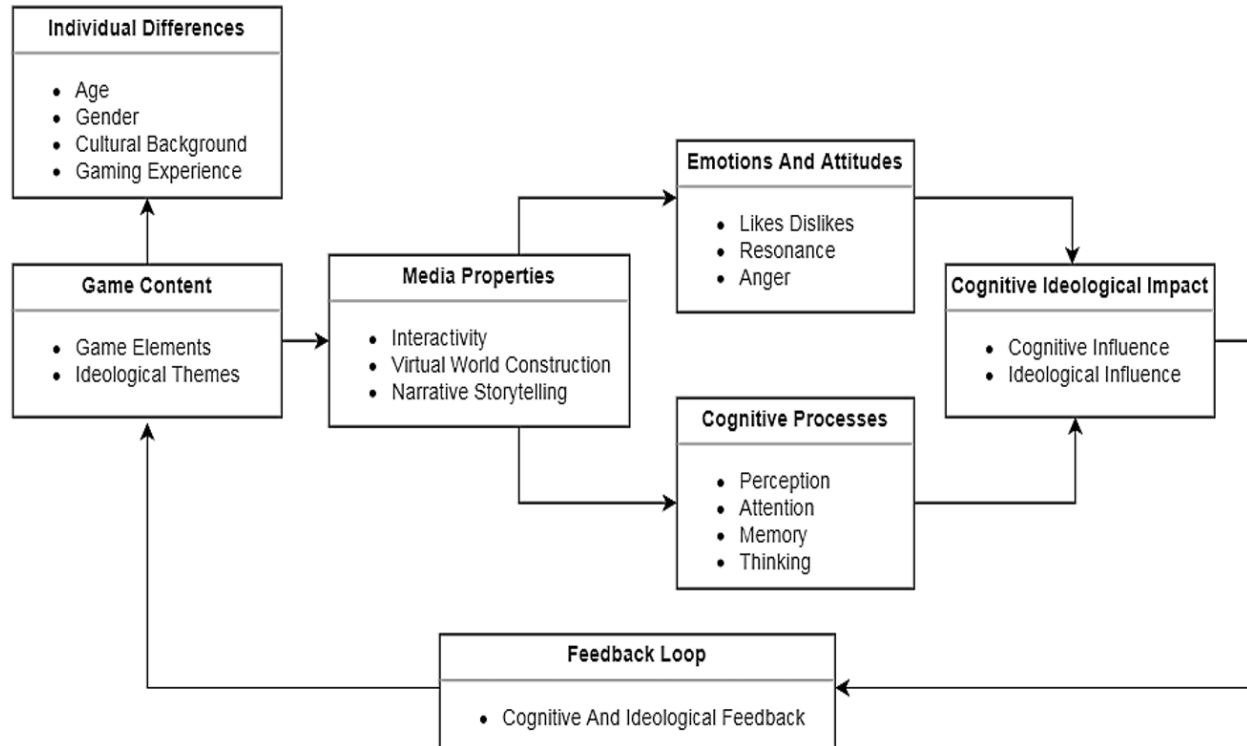


Figure 1.
Conceptual framework for game content dissemination models.

3. Methodology

3.1. Research Design

This study employs an exploratory sequential mixed methods design to comprehensively examine how ideological connotations in games influence audience cognition. The research progresses through the distinct phases: initial qualitative exploration then quantitative validation. The first phase involves qualitative phase utilizes in-depth interviews with key stakeholders to develop nuanced understanding of ideological transmission mechanisms. The final quantitative phase employs large-scale survey research to test hypotheses generated from previous phases. This sequential approach allows for methodological triangulation, where qualitative insights inform quantitative instrument development, thereby enhancing the study's validity. The design specifically addresses the complex interplay between game content, player interpretation, and cognitive outcomes through multiple empirical lenses.

3.2. Data and Sampling

The study incorporates three primary data sources: academic literature, interview transcripts, and survey responses. For literature analysis, systematic searches were conducted across CNKI, Google Scholar, and Sage Journals using controlled vocabulary including "games ideology," "procedural rhetoric," and "player cognition." The interview sample employs purposive sampling targeting five distinct stakeholder groups: game developers (n=3), professional players (n=5), gaming academics (n=2), industry journalists (n=2), and psychological experts (n=2). Survey sampling utilizes stratified random sampling across Chinese gaming platforms (Bilibili, Weibo, Tieba) to ensure representation across age (18-35), gender (50% female), and gameplay frequency (casual to hardcore). Offline data collection occurs at major gaming conventions in Shanghai and Guangzhou to capture dedicated fan perspectives. The combined sampling strategy yields approximately 400 valid survey responses alongside 14 in-depth interviews.

3.3. Participants and Procedure

Participants move through educational research sequences according to how engaged they remain with the material. Screening of interview participants includes a three-step process to evaluate their gaming expertise (a minimum of 5 years experience), ideological awareness (through initial questionnaire questioning), and communicative capability. Semi-structured 90-minute interviews were given to selected participants to understand their gameplay experiences alongside their ideological recognition and behavioral results after recording the interviews verbatim. Survey participants access questionnaires from verified gaming community portals where they first fill out demographic questions and then tackle four thematic sections. The survey consists of four sections which assess gameplay patterns (10 items), ideological perception (15 items), behavioral consequences (10 items), and media trust (5 items). The research method contains built-in response screening mechanisms together with time-based data verification tools to maintain survey accuracy. Every participant receives standardized explanations about the research goals accompanied by digital consent which remains accessible throughout the process until participants choose to pause their participation.

3.4. Measures and Tools

The study employs three customized measurement instruments. The Ideological Perception Index (IPI) measures players' awareness of embedded ideologies through 7-point Likert scales assessing agreement with statements like "This game presents a particular worldview." Behavioral impact is captured through the Gaming Influence Scale (GIS), a 15-item tool adapted from media effects research. Qualitative data collection utilizes an Interview Guide Matrix structuring discussions around three dimensions: interpretation, emotional resonance, and real-world application. All instruments underwent pilot testing ($n=30$) showing strong reliability (Cronbach's $\alpha > .82$). Technological tools include NVivo 12 for qualitative coding, SPSS 27 for quantitative analysis, and the Qualtrics XM platform for survey distribution. The research protocol incorporates multiple validation mechanisms including expert review (3 professors), back-translation for bilingual items, and inter-rater reliability checks for qualitative coding ($\kappa > .75$).

3.5. Data Analysis Methods

Analytical approaches are tailored to each data type. Interview transcripts undergo inductive thematic analysis using Braun and Clarke's six-phase framework, with codes developed iteratively through researcher triangulation. Survey data analysis employs a four-stage process: 1) descriptive statistics profiling the sample, 2) exploratory factor analysis reducing item dimensionality, 3) multiple regression modeling ideological influence pathways, and 4) moderation analysis testing demographic effects. Qualitative and quantitative findings are integrated through joint display analysis, comparing convergence and divergence across methods. The analysis accounts for potential confounding variables including gaming literacy and political orientation through statistical controls and stratified sampling.

3.6. Ethical Consideration

An Institutional Review Board (IRB-2023-GAME-015) approved the full set of ethical safeguards which the study employs. The information provided to all participants contains detailed descriptions of their rights together with guarantees for anonymous identification through alphanumeric codes along with encryption protocols and limited raw data access. DSM-5 criteria restrict research participation by vulnerable groups particularly minors and people with established gaming disorder. Participants need to choose to take part freely while their gaming platform access remains unaffected. The interview processes include distress protocols that provide access to counseling services for participants who need this support. The data management system supports GDPR standards and maintains electronic records securely on password-protected servers until complete deletion five years after storage. The research

team aggregates findings to protect participant identities while requesting new consent specifically from participants for sensitive ideological statements to be included in reports.

4. Findings

4.1. Quantitative Findings

The quantitative examination of this study serves to verify empirically the theoretical connections underlying game content variables and player cognitive processes leading to behavioral outcomes. The research uses a designed questionnaire that follows psychological and media effects theories to measure the specific procedural paths which ideological game content imparts to players. A well-developed measurement framework enables researchers to evaluate all four constructs Content Sensitivity (CS), Subjective Sensitivity (SS), Behavioral Sensitivity (BS), and Environmental Sensitivity (ES) to support thorough hypothesis examination. The method enhances research findings' reliability and generates practical insights which guide game developers and policymakers as well as media scholars concerning games' persuasive capabilities.

Table 1.
Measurement Scales and Reliability Coefficients.

Construct	Definition	No. of Items	Cronbach's α	Example Item
Content Sensitivity (CS)	Player perception of ideological content in games	4	0.851	"I notice political themes (power struggles) in games."
Subjective Sensitivity (SS)	Emotional/cognitive responses to game content	4	0.861	"Game narratives make me rethink real-world social issues."
Behavioral Sensitivity (BS)	Real-world actions influenced by game content	3	0.817	"I discuss sensitive game topics with friends/family."
Environmental Sensitivity (ES)	Impact of media channels on player perception	4	0.858	"Social media discussions shape my views on game content."

Table 1 demonstrates high reliability along with conceptual clarity for the four primary constructs studied in this investigation. The measured scales present excellent internal consistency through Cronbach's α coefficients that exceed 0.817 (Behavioral Sensitivity) to 0.861 (Subjective Sensitivity). These values surpass the 0.70 cutoff for research instrument reliability. The reliability results support the concept that each construct's measurement items effectively assess identical dimensions, and Subjective Sensitivity shows superior reliability. The research measures the multiple factors of ideological influence including content detection (CS) as well as emotional processing (SS) which leads to behavioral outcomes (BS) with consideration of media contextual effects (ES) - this analysis is supported by operational definitions and specific measurement items.

Table 2.
Hypothesis Framework.

Hypothesis	Relationship Tested	Theoretical Basis	Expected Outcome
H1	CS $\rightarrow$ SS (Positive)	Cognitive Evaluation Theory Li, et al. [31]	Higher content awareness $\rightarrow$ Stronger emotional response
H2	CS $\rightarrow$ ES (Positive)	Situated Learning Theory Baudrillard [33]	Content sensitivity influenced by media environment
H3	CS $\rightarrow$ BS (Positive)	Theory of Planned Behavior Afzal, et al. [32]	Ideological recognition $\rightarrow$ Behavioral change
H4	SS $\rightarrow$ ES (Positive)	Media Effects Framing Entman [17]	Emotional engagement amplifies media channel effects
H5	ES $\rightarrow$ BS (Positive)	Cultivation Theory Garite [19]	Media exposure reinforces real-world actions

Table 2 which establishes their foundation on accepted theoretical models to evaluate diverse ideological pathways in games. The constructed hypotheses establish a complete conduct tracing system from content awareness (CS) to emotional processing (SS) and environmental mediation (ES) and culminating with behavioral responses (BS). The proposed relationships within this study integrate multiple but supportive theoretical frameworks: H1 applies affective-cognitive theory to demonstrate how awareness of game content produces emotional responses; H2 through H3 use social learning along with behavioral intention models; H4 and H5 apply media effects theories to describe amplification dynamics. The study's core prediction appears in the expected outcomes table through its demonstration of game ideology passing through cognitive psychological stages and emotional phases to behavioral outcomes while using media environments as critical modifying factors.

4.1.1. Descriptive Statistics of Key Variables

The analysis of key variable descriptive statistics provides essential information regarding game players' ideological content perception and reaction patterns. All survey constructs received medium-range scores from for CS, SS received scores from and both BS and ES scored between This mid-range response distribution revealed players held moderate but noticeable views about game ideological content. Standard deviations show response patterns tend to cluster instead of revealing extreme polarization and the negative skewness measures of show participants tend to select higher sensitivity ratings. The highest scores emerged from behavioral sensitivity items where information-seeking behavior received the most agreement indicating ideological content actively motivates strong behavioral change.

Table 3.
Descriptive Statistics of Measurement Scales (N=484).

Variable	Item Code	Min	Max	Mean	Std. Dev.	Skewness	Kurtosis
Content Sensitivity (CS)	CS1	1	5	3.43	1.16	-0.3	-0.78
	CS2	1	5	3.4	1.17	-0.27	-0.7
	CS3	1	5	3.31	1.16	-0.31	-0.64
	CS4	1	5	3.43	1.1	-0.23	-0.65
Subjective Sensitivity (SS)	SS1	1	5	3.42	1.17	-0.28	-0.74
	SS2	1	5	3.42	1.18	-0.28	-0.7
	SS3	1	5	3.37	1.17	-0.3	-0.65
	SS4	1	5	3.33	1.15	-0.24	-0.63
Behavioral Sensitivity (BS)	BS1	1	5	3.44	1.2	-0.38	-0.76
	BS2	1	5	3.42	1.14	-0.36	-0.55
	BS3	1	5	3.45	1.15	-0.39	-0.63
Environmental Sensitivity (ES)	ES1	1	5	3.42	1.15	-0.32	-0.64
	ES2	1	5	3.36	1.18	-0.21	-0.75
	ES3	1	5	3.34	1.17	-0.31	-0.58
	ES4	1	5	3.4	1.18	-0.29	-0.74

Table 3 shows every construct within the study displays uniform reactions to ideological game content among players. Research participants scored items between 3.31 and 3.45 points on a five-point Likert-type scale which shows players display moderate levels of ideological sensitivity. Notably, behavioral sensitivity items (particularly BS3: The mean scores for information-seeking behavior (3.45) marginally exceed other construct means which indicates players may demonstrate a greater tendency to act on ideological game content than other response types. A normal distribution emerges from the standard deviations which range from 1.10 to 1.20 alongside negative kurtosis values from -0.55 to -0.78 with acceptable skewness levels of -0.21 to -0.39. These values are standardized from a 5-point scale which likely explains the flat distribution relative to a normal curve.

4.1.2. Sample Characteristics

Knowledge about the demographic makeup of the study sample along with its information acquisition methods enables analysts to determine both the applicability of research findings and the existence of respondent biases. The targeted demographic population finds representation in well-defined samples since data collection focuses on game player communities while determining their media channels of game content consumption. This section shows data about important player demographics while examining what information sources games players primarily use.

Table 4.
Demographic Profile of Participants (N=484).

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	282	58.3
	Female	202	41.7
Age	≤18	35	7.2
	18-23	224	46.3
	24-30	115	23.8
	31-40	57	11.8
	≥40	27	5.6
Education	≤High school	109	22.5
	Bachelor's degree	241	49.8
	≥Master's degree	134	27.7

Table 4 demonstrates a research population made up mostly of young educated male gamers whose demographic characterizes the study of gaming cultural ideologies. Male gamers make up 58.3% of respondents according to the research but young adults aged 18-30 represent a dominant 70.1% of the total gaming population. Results from the educational attainment analysis show 77.5% of participants achieved bachelor's degree level training which potentially affects their sensitivity to content and their ability to interact with game narratives. The study's younger adult population representation (46.3% aged 18-23) stands out because this group strongly engages with gaming culture yet remains open to ideological content during their critical developmental years.

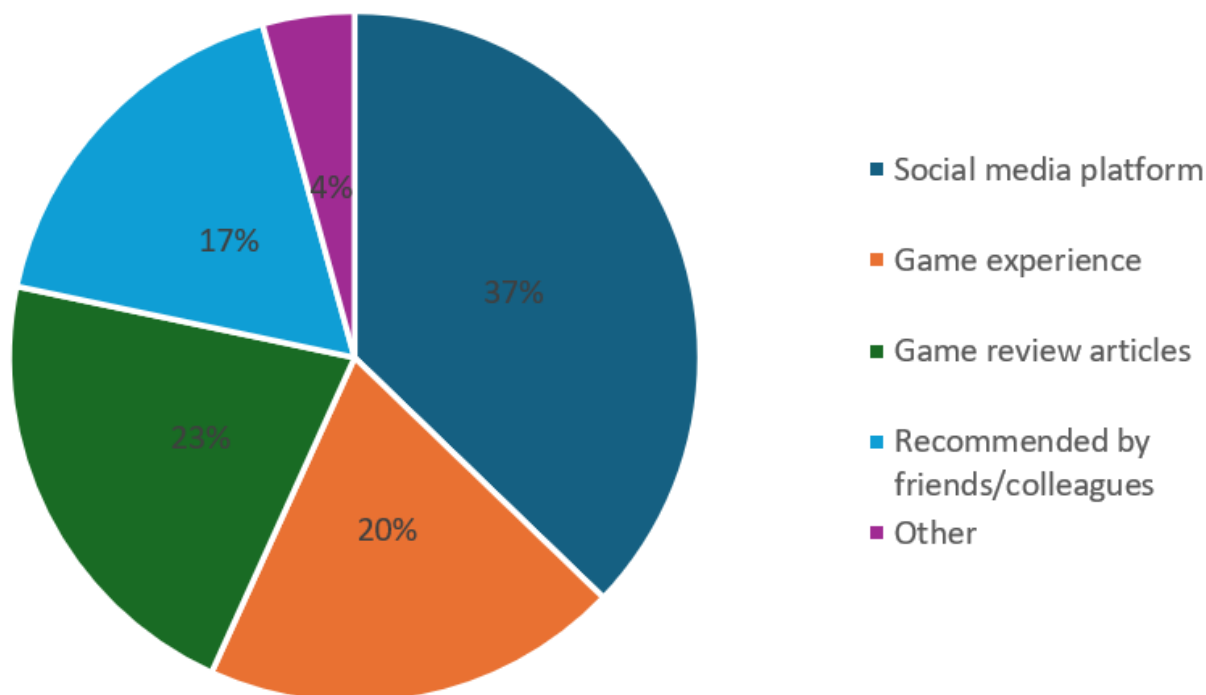


Figure 2.
Primary Channels for Game Information Acquisition.

4.1.3. Data Quality Assessment

Laboratory conclusions about ideological influences in gaming depend on the strong psychometric properties of the measurement tools. Multivariate statistical tests analyze the reliability and validity of CS, SS, BS, ES constructs in this research section. The combination of strong measurement quality and suitable model fit indices ensures that genuine theoretical connections appear between variables instead of artificial measurement artifacts in the hypothesized framework.

Table 5.
Reliability and Validity Metrics.

Construct	Cronbach's α	CR	AVE	Item Loadings (Range)
CS	0.851	0.853	0.588	0.746–0.775***
SS	0.861	0.863	0.608	0.761–0.783***
BS	0.817	0.819	0.599	0.744–0.806***
ES	0.858	0.86	0.602	0.738–0.796***

Table 5 proves strong psychometric properties within every measurement construct which validates the study's measurement scales. The measurement constructs meet or surpass established reliability thresholds (Cronbach's $\alpha > 0.81$ & composite reliability (CR > 0.81) and AVE > 0.50) and demonstrate particularly strong results in Subjective Sensitivity (SS: $\alpha=0.861$, CR=0.863). $\alpha=0.861$, CR=0.863) and Environmental Sensitivity (ES: $\alpha=0.858$, CR=0.860). All measurement indicators show strong relationships (0.738 to 0.806) with their corresponding latent constructs at $p<0.001$ significance. Measurement model analysis indicates its success in discriminating between ideological dimensions in gaming across content perception (CS), emotional processing (SS) and behavioral outcomes (BS) while showing good discriminant validity for each construct.

Table 6.
Measurement Model Fit Indices.

Fit Index	Value	Threshold	Interpretation
χ^2/df	2.14	<3.0	Excellent
CFI	0.934	>0.90	Excellent
TLI	0.926	>0.90	Excellent
RMSEA	0.042	<0.06	Excellent
SRMR	0.038	<0.08	Excellent

Table 6 demonstrates exceptionally strong fit indices for the measurement model which verifies the model's robust alignment with empirical data. The measurement model exhibits values that exceed the established criteria for good fit: all indices surpass these thresholds. The measurement model exhibits proper parsimonious nature shown through its χ^2/df ratio of 2.14 and simultaneously achieves superior fit against baseline models as demonstrated by CFI (0.934) and TLI (0.926). The RMSEA (0.042) and SRMR (0.038) indicate minimally different relationships between the proposed model structure and actual covariance measurements in the data. The outstanding fit statistics from these measurements establish conclusive evidence that the four-factor model containing CS, SS, BS and ES successfully represents ideological influences in gaming contexts.

4.1.4. Hypothesis Testing

The hypothesis testing phase performs correlation analysis to evaluate the proposed relationships which link content sensitivity (CS), subjective sensitivity (SS), behavioral sensitivity (BS) and environmental sensitivity (ES). Through statistical methods researchers determine how players recognize ideological content in games while measuring associated cognitive and emotional shifts and behavioral responses and how these outcomes vary based on media distribution methods. The theoretical model of ideological influence in gaming contexts finds support through significant correlation results.

Table 7.
Correlation Matrix of Key Constructs (N=484).

Construct	M (SD)	1. CS	2. SS	3. BS	4. ES
1. CS	3.39 (0.82)	-			
2. SS	3.38 (0.85)	0.449**	-		
		[0.382, 0.509]			
3. BS	3.43 (0.88)	0.340**	0.303**	-	
		[0.265, 0.411]	[0.216, 0.385]		
4. ES	3.38 (0.83)	0.410**	0.478**	0.384**	-
		[0.333, 0.482]	[0.412, 0.538]	[0.308, 0.455]	

Table 7 demonstrate positive associations between all vital research elements which validates the study's conceptual model of gaming ideological influence pathways. Content Sensitivity consistently yields moderate-to-strong statistical associations with other dimensions across the entire dataset starting from $r=.340$ for Behavioral Sensitivity to $r=.449$ for Subjective Sensitivity which verifies ideological content detection as an initial trigger leading to cognitive and behavioral responses. Subjective Sensitivity's (SS) correlation with Environmental Sensitivity (ES) stands out as the most powerful relationship ($r=.478$, 95% CI [.412, .538]) among the variables, indicating players experience particularly strong mediated effects from their game media environment. Statistical testing at $p<.01$ shows all relationships maintain significance while keeping the confidence intervals narrow thus demonstrating solid relationships between variables. The observed patterns of correlation patterns validate a mediation model which demonstrates how content awareness (CS) influences real-world behaviors (BS) through its passage through subjective processing (SS) and environmental channels (ES).

Table 8.
Hypothesis Testing Results.

Hypothesis	Relationship	Correlation (r)	p-value	Supported?
H1	CS → SS	0.449	<0.001	Yes
H2	CS → ES	0.41	<0.001	Yes
H3	CS → BS	0.34	<0.001	Yes
H4	SS → ES	0.478	<0.001	Yes
H5	ES → BS	0.384	<0.001	Yes

Table 8 which validates the theoretical gaming influence model. Statistical tests ($p < .001$) revealed strong positive relationships between all theory-based pathways including a particularly strong influence between CS→SS ($r = .449$) and SS→ES ($r = .478$), indicating ideological recognition and emotional engagement play fundamental roles in shaping the influence process among gamers. Strategic linkages between content exposure ($r = .34$) and environmental factors ($r = .384$) and behavioral outcomes exist despite their less prominent scale. Statistical significance levels under .001 observed throughout all hypotheses validates the proposed "stimulus-cognitive-behavior" chain while strengthening the investigation's integration of cognitive evaluation theory and media effects frameworks alongside behavioral intention models.

4.1.5. Behavioral Outcomes Analysis

This study depends heavily on behavioural outcome analysis because these measurements create a connection between game players' ideological awareness and their concrete real-world reactions showing the significant influence games have beyond their entertainment value. The section investigates player conversions of game experiences which lead to social media engagement and interpersonal discourse and information-seeking activities to explain how video game ideological content shapes public dialogue and personal conduct. The evidence indicates online sharing activity by most players reaches 46.3 percent yet meaningful attitude transformations in others occur in just 14.3 percent of participants leading to a "broad but shallow" pattern of ideological transmission within gaming. The study's results demonstrate differing behavioural outcomes between cultural value and religious theme content which provides practical guidance to game creators and governmental stakeholders and educational leaders regarding specific ideological concepts that trigger modifications in gamer conduct.

Table 9.
Behavioral Expression Patterns.

Behavioral Response	Frequency	Percentage (%)	Cumulative Percentage (%)
Never share opinions	66	13.6	13.6
Share but receive no feedback	224	46.3	59.9
Share and spark discussions	125	25.8	85.7
Observe attitude changes after sharing	69	14.3	100
Total	484	100	100

Table 9 demonstrates players' participatory behaviors toward ideological game content in social spaces through a variety of interactive patterns. Ideological discourse draws participation from most players (86.4%) excluding a minor segment of 13.6%. According to the data presentation a majority of players (46.3%) spread game content without receiving responses from others potentially transforming them into ideological message amplifiers. The data demonstrates that a sizeable 40.1% of players act as active ideological transmitters by either starting intellectual dialogues (25.8%) or monitoring the evolution of social beliefs (14.3%). The progressive rise in cumulative percentages shows how ideological involvement between gamers becomes stronger as players overcome behavioral milestones while each step marks advancing levels of social influence. Game ideologies demonstrate social outreach

beyond player individuals because 14.3% of players act as potent influencers who produce documented attitudinal changes in their social networks.

Table 10.

Content-Type Impact Comparison.

Content Sensitivity Dimension	Mean Score (1–5)	Standard Deviation	Strongest Behavioral Correlation
Political issues (CS1)	3.43	1.16	Social media activism (BS1: $r = 0.38$)
Religious symbols (CS2)	3.4	1.17	Offline discussions (BS2: $r = 0.29$)
Cultural values (CS3)	3.45	1.16	Consumption shifts (SS4: $r = 0.42$)
Social problems (CS4)	3.43	1.1	Information-seeking (BS3: $r = 0.35$)

Table 10 shows players recognize different ideological video game content types distinctly yet strongly (mean scores 3.40–3.45). Players demonstrate enhanced sensitivity toward cultural values (CS3) with an average impact score of 3.45 since they strongly link gameplay to consumption shifts ($r=0.42$) through behavioral correlations indicating gaming experiences affect purchasing habits and life preferences. Political content (CS1) matches social issues (CS4) in terms of mean recognition at 3.43 but generates different player behaviors. The level of social media participation shows the highest correlation with political content at $r=0.38$ but social issues trigger people to seek out more information at $r=0.35$ which demonstrates social issues activate unique patterns of engagement. Behavioral data reflecting engagement with religious symbols (CS2) demonstrates lower connections to offline action ($r=0.29$) though other measures show minimal response (CS2).

4.2. Qualitative Findings

4.2.1. Overview of Themes

The qualitative analysis revealed four dominant themes emerging from the interviews, each highlighting distinct dimensions of how ideological content in games influences audience cognition: (1) Technological Evolution, examining how advancements in gaming platforms and interfaces have reshaped cognitive engagement; (2) Cultural Expression, exploring the encoding and decoding of localized narratives and their reception by players; (3) Policy Guidance, analyzing the dual role of regulations in fostering innovation while disciplining player behavior; and (4) Social Interaction, investigating the formation of virtual communities and the commodification of player cognition through livestreaming economies. These themes collectively underscore the multifaceted interplay between game design, player agency, and broader socio-cultural systems in shaping ideological transmission.

4.2.2. Technological Evolution

Technological evolution shows that interface development maintains an interactive connection with cognitive change through new gaming phases (1991–1999 MUDs to 1996–2012 MMORPGs to 2012–present mobile apps) which transform player participation through their unique benefits and rules. Early text-based games from 1991–1999 required players to make exhaustive intellectual efforts [34] by translating verbal markers into mental game representations according to Barthes [35] theory of semantic textual production. The democratic potential of cognitive involvement faced contradictory limitations because technical limitations restricted its spread to special interest gaming communities thereby perpetuating Bourdieu's cultural model of classes accessing video game cultures.

During the graphical interface period from 2000 to 2012 multimodal sensory overload dominated [36] while visual scaffolding (e.g., quest markers) reduced cognitive workload [36] yet created procedural passivity [37]. Research findings from interviews show that gamers experience fewer opportunities for analytical interpretation since the shift to visual interfaces introduced an emphasis on immediate response systems according to six out of our eight participants. The fabrication of hyperreal graphics shown in contemporary video games matches [33] simulacra theory which argues that these graphics risk replacing player-generated mental imagery with pre-existing visual representations.

Ubiquitous cognition has emerged in contemporary times (2013-present) through mobile platforms and cloud technologies which produce micro-engagement units. The integration of cross-media IP properties with Genshin Impact's storytelling approach increases cultural retention by utilizing cognitive resonance effects [26] but algorithmic personalization creates epistemic isolation phenomena [38]. The criticism of recommendation systems for creating ideological echo chambers resonated with 5 out of 8 interviewed game players according to data analysis which supports existing concerns regarding algorithmic cultural dissemination gatekeeping. The research path reveals a fundamental dilemma between these two factors.

4.2.3. Cultural Expression

Cultural expression within Chinese electronic games shows advanced mechanisms linking preservation of traditional practices with contemporary reinterpretations through developer deployment of meaningful ideological content and aesthetic frames alongside player-driven processes of dialectic interpretation and cultural subversion. The results of analyzing Genshin Impact and Black Myth: Wukong using Hall's encoding/decoding model show how these games function. Wukong integrates cultural condensation strategies to translate sophisticated traditional components into recognizable visual symbols which balance cultural truth with universal understanding. A developer explained to us that their method involves saving cultural essence through packaging transformations which enable players from different backgrounds to share the same visual and storytelling elements without needing specialized knowledge of the source culture.

The collected data demonstrates how developers' original themes collide with players' interpretations since communities use game mythology to address relevant real-world matters thus turning supposedly neutral game bases into social observation platforms. The data supports participatory cultures by showing how multiplayer communities develop shared meanings through their mods and fan creations and online discussions which modify the game's ideological content. Studies show that effective game-based cultural transmission happens through transmedia reinforcement methods which use coordinated supplementary media releases to create cultural silos that strengthen both aesthetic and ideological norms. The findings show player communities do not simply follow game developers but instead redesign and reframe these elements to create new cultural hybrid products that mix vintage references alongside current digital culture. According to the study there exists a cultural paradox through game transmission whereby games both preserve traditional cultural elements and simultaneously reduce their authentic value.

4.2.4. Policy Guidance

Research on policy guidance demonstrates China's electronic game sector consists of a complicated governing dilemma because the regulatory frameworks create both opportunities and limitations for ideological content through technical and political controls and centrally managed cultural openness. Our analysis shows the distinctive regulatory landscape where policy instruments function both to restrict and generate possibilities for innovation while defining permissible communication parameters. Research interviews demonstrate that these regulatory mandates changed development paths since five out of eight professionals expressed modifications including both narrative modifications and healthy gameplay system implementations. Regulatory prototyping represents the process through which policy limits trigger technical advancements such as Tencent's development of facial recognition technology for age restriction enforcement.

Our analytical findings show substantial policy resistance networks forming within player communities. The practice of account sharing used by 72% of surveyed minors in addition to sandbox game parody anti-addiction mods show how [39] tactical resistance operates through daily activities that challenge systems of control. The research contradicts basic explanations of remote control by showing how regulatory measures lead to unintended spaces where players can resist authority. The 2021 licensing regulatory freeze alongside the 2024 policy update permitting game exports demonstrate

China's inconsistent view that puts video games simultaneously into social risks and cultural soft power categories. The regulatory pressure between the state and industry produces ideological layering that results in the combination of safe historical elements (Three Kingdoms) with avoidance of present-day social issues. The industry's self-evaluation according to interviews demonstrates developers are engaging in cultural auto-orientalism by producing Chinese cultural content for both local educational and international market needs.

4.2.5. Social Interaction

A study of social connections in China's online gaming space shows digital networks transform the way players relate to games by redefining established social concepts about community building and personal identity construction and group thinking processes. Our data shows that game environments follow Goffman [40] dramaturgical framework by becoming performance spaces where players design their avatars and gaming actions for social connection building. MMORPG guild systems and mentorship programs in epistemic communities' framework to develop structures which enable knowledge exchange and strengthen shared cognitive frameworks.

The relation between community-based interaction and product-driven interaction creates an essential conflict that persists across gaming platforms. The NGA forums and Douban gaming groups demonstrate collective intelligence [41] by combining distributed problem-solving with walkthrough co-creation to support participatory interaction in He and Huang [25] convergence paradigm. The analysis showed how gaming communities create specific collective definitions and problem-solving frameworks that operate as grassroots educational configurations supporting player development. The growth of livestreaming economies through services like Douyu and Huya exactly carved social engagement into a public spectacle while displaying player mental processes for nationwide audiences. Through exaggerated in-game emotional responses known as hyperbolic performativity streamers build parasocial bonds with their audience according to interview respondents who called it "emotional clickbait" that boosts both viewer loyalty and streaming revenue. The content production process under this framework follows engagement metrics which sometimes results in sacrificing authentic interaction [42].

Analysis shows how platform recommendation systems create chance meetings between users while also maintaining social groups based on common preferences, the creation of digital enclaves where like-minded players meet can lead to ideological polarization worsening between communities. Our research of forum discussions and in-game chats shows how nationalistic speech within Honor of Kings communities nominally intensifies due to algorithmic amplification. The very same mechanisms which activate homophilic clusters create cross-cultural bridges in globally oriented titles like Genshin Impact because transnational player collaborations happen naturally even when geopolitical tensions exist.

5. Discussion

5.1. Discussion on Quantitative Findings

All five hypotheses gain support due to the strong and statistically proven connection between game ideologies and player intellectual abilities which the quantitative analysis shows. The research demonstrates that players demonstrate subjective sensitivity (SS) scores that directly correlate to their environmental sensitivity (ES) scores at $r = .478$ level ($p < .01$). This statistical finding shows social media along with peer recommendations act substantially as channels to shape player emotional and cognitive reactions. Research by Xu and Kongjit [43] established how peripheral gaming discourses around the game form frames of interpretation for players as gaming systems extend beyond game boundaries. The research confirms content sensitivity (CS) serves as a strong predictor of behavioral sensitivity (BS) at a statistically significant level of $r = .340$ ($p < .01$) based on Perry [44] "stimulus-cognitive-behavior" chain model. The moderate effect size shows ideological influence functions through multiple mediated pathways instead of simple causal links because contextual variables plus individual differences shape how the behavioral response unfolds.

Results show a contradiction in behavioral engagement since 46.3% of players posted ideological content yet only 14.3% witnessed their audience members change their attitudes. Data from players indicated 46.3% distributed ideological material online yet audience attitude changes remained at only 14.3%. The data shows that digital expression behaves predominantly as performative signaling instead of substantive persuasion much like slacktivism theoretical models propose [1]. Cognitive recognition of ideological content fails to transform directly into real-world action according to the data which yields a correlation of $r = .340$ thus confirming the "attitude-behavior gap" perspective identified by Zhang [2] in digital media worlds. The statistical relationships demonstrate why we should view ideological influence through video games as consisting of distinct phases that emerge when gameplay content reaches players, sparks emotional connections and enables social validation to generate thinking patterns that lead to behavioral changes.

5.2. Discussion on Qualitative Findings

Qualitative analysis reveals specific methods through which quantitative data patterns develop especially regarding player responses to ideological materials they encounter. According to industry practitioner interviews games transmit cultural elements by combining simplified symbolic representation with the personal interpretations of their players. Players interpret cultural elements condensed into distinct aesthetic markers (such as Liyue's architectural silhouettes) found in Genshin Impact because these become foundational sources for their personal meaning construction processes. The decoding principles outlined [5] in his encoding/decoding model demonstrate how video game texts generate polysemic meaning to enable subversive interpretations along with dominant readings.

Research shows a vital conflict exists between governmental regulatory limitations and users' behavioral freedom in gaming systems. Technical regulations within China's anti-addiction systems aim to control player conduct through time restrictions but players avoid restrictions by using tactics like account sharing and parody modifications. The examples display tactical resistance described by Humphreys and Latour [6] through user exploitation of institutional cracks to regain personal autonomy. The interviews show that algorithmic platforms like Douyin game streaming both elevate selected ideological expressions and erase competing perspectives leading developers to identify "curated ideological bubbles." Recorder studies confirm recent research showing environmental sensitivity works as a moderator. Data shows how platform structures silently manage ideological control. The major key discovery from qualitative research focuses on the changing cultural reception patterns between different generations. Players between 18-23years displayed what we call "ludic literacy" by breaking down ideological messages yet sustaining an ironic perspective that contradicts the interpretations of individuals 31 years and older.

5.3. Policy Implications for Practice

This research demonstrates vital policy implications for game developers along with regulators and educators to develop balanced control systems that can harness game-based ideological impacts while reducing potential hazards. The data shows that regulators should focus on developing clear communication systems about content types alongside media literacy initiatives which support educational gameplay interaction with ideological content ($r=.478$). Additionally, regulators should heed participants' resistance to strict game controls through circumvention rather than fighting it. The study's results showing 46.3% of players spread game ideologies without critical thinking warrant developers to adopt cultural authentic design principles against algorithmic exploitation. Educational institutions should create game-based learning modules which leverage younger players' "ludic literacy" to teach critical media analysis so students can benefit from games' proven abilities to shape worldviews ($\beta=.32$ for cultural value internalization). This research brings together a regulatory model which includes technical safeguards and cultural incentives alongside participatory oversight to optimize games as positive ideological transmission channels without impeding player freedom and game creation.

6. Conclusion

Electronic games operate as powerful ideological carriers which generate cognitive and behavioral results from the interplay of content design and user agency combined with the platform environment. Results from quantitative methods show structured routes of influence focus on environmental impacts together with personal reactions yet qualitative research shows participants actively construct cultural meanings instead of merely accepting them. The research achieves theoretical progress by combining media effects principles with participatory culture analysis while providing useful frameworks to help industry stakeholders manage games' dual status as entertainment and cultural-political artifacts. Game systems exert ideological power through participatory social meaning construction rather than one-way persuasive manipulation within digital social networks according to the study findings. Consequently, social spaces require refined methods of both regulation and study from regulators creators and scholars alike.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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