Prevention and Mitigation of Extremism in Games: A Neomaterialist Reflection on the Agency of Objects

Evelise Galvão de Carvalho[1]

1 Postgraduate Program in Communication and Contemporary Culture – Federal University of Bahia (UFBA) Salvador – BA – Brazil

`evelise@gmail.com`

ABSTRACT: *Introduction: Digital games have become vulnerable to extremist propaganda yet offer prevention opportunities through their technological materiality. Games function as dynamic ecosystems formed by networks of human and non-human actors that directly impact player experiences.* ***Objectives:*** *This article investigates how technological elements in video games act as active agents in preventing and mitigating extremism, examining game materiality through a neomaterialist perspective that recognizes non-human agency in shaping player experiences.* ***Methodology:*** *This qualitative study combines systematic literature review, case analysis, and document examination. The research draws on neomaterialist theory (Latour, Barad, Bennett, Braidotti) and analyzes moderation mechanics in League of Legends, Valorant, Minecraft, Journey, and Overwatch.* ***Results/Discussion:*** *Analysis reveals object agency manifests through cooperative design mechanics, automated moderation systems, positive reinforcement tools, and AI-driven responses. However, reactive approaches often fail as companies implement post-problem solutions rather than preventive strategies from conception phases.* ***Conclusions:*** *The study proposes Safety by Design approaches integrating extremism prevention from early development stages, including inclusive design mechanics, AI-enhanced moderation, and distributed agency systems empowering players as prevention agents, demonstrating how object agency can create safer collaborative gaming environments.*

Keywords: Neomaterialism, Video Games, Extremism, Object Agency, Safety by Design, Materiality

1. Introduction

Games are increasingly present in society's daily life. According to PGB data (2024), gaming habits among Brazilians reached 73.9%, representing a growth of 3.8 percentage points compared to the previous year. In this context, game materiality emerges as a crucial field for understanding complex interactions between players and game elements. From a Neomaterialist perspective, games function not only as entertainment platforms, but also as dynamic ecosystems formed by networks of human and non-human actors that directly impact player experiences and can either facilitate or prevent extremist practices within these environments. This article investigates how

objects, devices, and technological infrastructures possess agency and play active roles in preventing and mitigating extremism in digital games, drawing on Latour's (2012) Actor-Network Theory, Barad's (2007) Agential Materialism, and contributions from Bennett (2009), Braidotti (2006), and Lemos (2015) regarding ludic modes of existence.

Concrete examples demonstrate the application of object agency in extremism mitigation, such as reporting systems in games like League of Legends and Valorant enable players to function as moderation agents, while Overwatch's endorsement systems promote positive behaviors and reduce toxicity. The AI detection systems in Red Dead Redemption 2 exemplify how programmed objects and NPCs can proactively discourage harmful behaviors and foster healthier gaming environments. However, these reactive approaches often fail to achieve optimal results, highlighting the importance of addressing extremism structurally from the initial phases of game development rather than implementing solutions as afterthoughts.

The literature review reveals that limited research has applied neomaterialist theory to examine how digital objects themselves can function as preventive agents against extremism. This appears to represent a gap in both game studies and extremism prevention research, where games are typically treated as passive platforms requiring human or AI intervention rather than recognizing the potential agency of game objects, mechanics, and systems in shaping player behavior from conception. By exploring object agencies in games and their relationship with extremist practices, this study seeks to contribute to this underexplored area by proposing a theoretical framework that integrates neomaterialist theories and Safety by Design principles to examine how non-human elements might participate in extremism prevention through distributed agency networks. This neomaterialist perspective aims to contribute insights into safer and more responsible game development practices that consider object agency principles from conception phases, exploring how human-nonhuman collaborations could promote positive gamer culture less vulnerable to extremist exploitation.

2. Methodology

This research adopts a qualitative approach with a theoretical-reflective nature, combining systematic literature review with case analysis and document examination. The study draws on Neomaterialist literature (Latour, 2012; Barad, 2007; Bennett, 2009; Braidotti, 2006), game studies focusing on materiality (Apperley & Jayemane, 2017; Lemos, 2015; Gasi, 2023), and studies on extremism in digital games (Lakomy, 2017; Lakhani, 2021; Schlegel & Kowert, 2024; Amarasingam & Kelley, 2024; Kowert, Kilmer & Newhouse, 2024). The analysis examines games and their mechanics, including League of Legends, Valorant, Minecraft, Journey, Overwatch, Assassin's Creed, and Red Dead Redemption 2, investigating how the agency of digital objects influences player behaviors and interactions. The methodology seeks to articulate Neomaterialist theory with empirical evidence from games, providing a critical reflection on how non-human elements can act in preventing extremism in gaming environments.

3. Materiality Of Games

As digital platforms advance, examining how materiality, technological infrastructures, and non-human agents shape players' experiences becomes crucial, particularly regarding their connection to extremism within gaming environments. The material turn in game studies, discussed by Apperley and Jayemane (2017), reinterprets

digital games considering their material contexts across multiple scales, from hardware and software to players bodies and sociocultural gaming situations. This perspective finds grounding in Latour's (2012) Actor-Network Theory (ANT), where human elements, objects, and technological devices function as actors participating in social construction. Gaming devices, platforms, and programming codes are not passive mediators but active agents influencing player interactions. Gasi (2023) argues that games create memory webs enabling immersion, intimacy, and affection between players through complex networks of human and non-human actors. The concept of *nodes* in cyberspace highlights digital experience challenges requiring attention to network interactions and mediations. Integrating posthuman thinking, Braidotti's (2006) nomadic subject reveals that players assume different roles within digital universes through avatars, creating fluid identities shaped by technological devices.

This connects to companionship of species, where humans, avatars, and devices coexist creating networks of meanings beyond rigid human/non-human separations. Barad's (2007) intra-action concept proposes that agency resides in relationships rather than separate entities. When players, consoles, interfaces, and algorithms interact continuously, they collectively construct gaming experiences. In The Legend of Zelda: Breath of the Wild (2017), environmental responses (wind, rain, combustible materials) determine outcomes when lighting campfires, demonstrating that agency emerges from dynamic relationships between all elements. Bennett's (2009) vibrant matter proposes that objects possess agency and vitality. In games like Minecraft, items combine creating new dynamics beyond original functions, while VR games like Half-Life: Alyx (2020) demonstrate object vitality through sensory experiences making environments active participants in player immersion. Lemos (2015) addresses how ludic activity constitutes modern subjectivity, positioning game beings as technological devices mediating ludic experiences rather than mere visual elements. Red Dead Redemption 2 illustrates this through NPCs and environmental responses that constitute player identity externally, creating sociotechnical networks shaping moral subjectivity through consequences within the game's magic circle. This capacity for games to actively shape player identity and behavior finds practical application in extremism prevention through frameworks like GIFCT (2025), which validates neomaterialist perspectives by demonstrating how technical objects, from reporting interfaces to endorsement systems, function as active agents preventing extremism through distributed agencies.
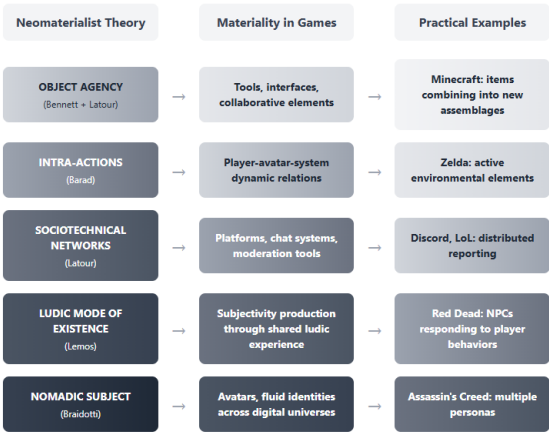

Figure 1: Neomaterialist Theoretical Framework Applied to Digital Games. Source: Authors' elaboration.

Figure 1 synthesizes how different Neomaterialist approaches apply to digital games analysis, providing the theoretical foundation that guides our investigation of object agency in extremism prevention. The framework illustrates the interconnected nature of these theoretical perspectives and their practical applications in understanding how digital objects actively participate in shaping player experiences and behaviors. This neomaterialist framework establishes theoretical groundwork for examining how games can be reconceptualized as active agents in social processes rather than passive entertainment platforms. By recognizing the agency of digital objects, environments, and systems, we can better understand how gaming experiences emerge from complex networks of human and non-human interactions. This perspective could be particularly relevant when exploring how such networks might be intentionally designed to prevent extremism and promote positive social outcomes, offering a complementary approach to traditional methods that focus primarily on human behavior modification by incorporating the potential role of technological materiality in shaping social dynamics.

4. Extremism In Games

In recent years, games have come to be seen not only as a form of entertainment but also as a space in which significant social interactions occur that can be exploited by extremist groups. Although games are widely recognized for their positive potential facilitating socialization, problem-solving, and teamwork (Carvalho, Carvalho & Fontes 2022), there is growing evidence that, in certain contexts, they have been used as channels of propaganda and radicalization by extremist groups. Extremists of various ideologies have explored these virtual environments, not only to disseminate their messages but also to recruit members, using the very structure of games and the feeling of community belonging to attract members (Schlegel & Kowert, 2024). One of the strategies for extremists to exploit games is using them as propaganda tools. Since the beginning of the 21st century, jihadists have used games to recruit new members and intimidate Western societies. They created, for example, games like *Quest for Bush*, and made mods of popular games, such as *Grand Theft Auto V (GTA),* to include their narratives. Additionally, they produced propaganda videos inspired by games like *Call of Duty (COD)* and used platforms like Discord to recruit and organize themselves. Gamification was also applied in training simulators, and cultural elements in the games were modified to strengthen extremist identities and create emotional connections with their agendas and causes. (Lakomy, 2017)

Besides creating their own games, extremists also exploit existing player communities as recruitment sites. Peckford (2020), in his study on the *Reddit community* associated with *#GamerGate* (r/KotakuInAction), reveals that many virtual spaces are particularly vulnerable to right-wing extremist ideologies. He identified themes such as far-right bigotry and hate speech disguised as freedom of expression discourse, which became normalized within this community. *#GamerGate*, initially framed as a movement about ethics in game journalism, quickly transformed into a platform promoting harassment against women and minorities while simultaneously functioning as a discursive and affective laboratory for strategies later incorporated by reactionary political campaigns such as Trump's 2016 and Bolsonaro's 2018 runs (Mendes, 2024). This demonstrates how gaming communities can serve as testing grounds for extremist ideology propagation and political manipulation techniques. This exploitation extends beyond games themselves to adjacent platforms used by gaming communities. Lakhani

(2021) notes that platforms like *Discord* and *Twitch* not only host gaming discussions but also facilitate communication and community building among extremist groups. The flexibility and anonymity these platforms provide make effective moderation challenging, allowing hate speech and extremist ideologies to spread with minimal oversight.

Radicalization through games often can occur indirectly, through the normalization of problematic behaviors and ideological reinforcement. Social dynamics within games often involve violent and discriminatory language, which, when not moderated, becomes naturalized for players (Amarasingam & Kelley, 2024). Places where there is a culture of *trash talk* that can evolve into extremist rhetoric, this phenomenon is frequently reported by players of *League of Legends*, one of the most popular multiplayer games in the world where in many cases toxic language and abusive behaviors continue to go unnoticed, creating an environment in which these behaviors become increasingly normalized, especially among young players, as pointed out by the study of Carvalho and Rocha (2014) in a sample of 1,348 players, of which 90% stated they had suffered at least once in the last week some type of verbal aggression within the game. According to Schlegel and Kowert (2024), they bring another concept that can help understand the problem, the gamification of violence, which refers to the use of game mechanics to promote violent and extremist narratives. Reward elements, such as points, items in the game, and achievements, are used to create a sense of accomplishment and purpose when engaging in extremist behaviors, making the act of virtual violence rewarding and even heroic. Additionally, the use of cultural references from games in extremist propaganda is another mechanism that facilitates the acceptance of ideologies; extremist groups frequently use known elements from games to attract players. For example, the *Islamic State* that used stylized images inspired by *GTA* in their propaganda videos, suggesting that their acts of violence were like the actions performed in the game to romanticize their activities and attract recruits who were already familiar with gaming culture.

This global pattern of extremist exploitation of gaming culture is particularly evident in Brazil, as documented by the Working Group of Experts on School Violence (Cara, 2022), which extensively examines the relationship between electronic games and gamer culture. The report highlights that hate groups use internet platforms and online games to articulate and organize communities that promote extremist discourses. These groups employ humor, aesthetics, and violent language, especially sexist language, to co-opt young people and adolescents, taking advantage of their participation in games for the promotion of hate ideologies.

5. Agency Of Objects and The Prevention and Mitigation of Extremism in Games

Although there is evidence that games can be exploited for the dissemination of extremist ideologies, there are also considerable efforts to transform these environments into safer spaces. Lakhani (2021) and Schlegel and Kowert (2024) discuss the importance of Preventing and Countering Violent Extremism (PCVE) measures and Safety by Design within platforms, institutions, and game developers. Many companies have invested in artificial intelligence tools to detect keywords and suspicious behaviors, while partnerships between game developers and prevention organizations have been formed to promote positive messages within online environments.

However, existing approaches to extremism prevention in gaming remain predominantly reactive rather than preventive. League of Legends exemplifies this challenge through its evolution from the Tribunal system (2011-2014) to automated reporting, while Valorant implemented its reporting system only after launch, requiring subsequent adjustments such as Ranked Rollback to mitigate damage already caused to players. These cases illustrate how companies frequently adopt solutions only after problems are identified, rather than incorporating preventive strategies from conception phases. Kowert, Kilmer and Newhouse (2024) highlight structural problems that facilitate extremist ideology proliferation, including inefficient reporting systems that fail to identify and respond promptly to suspicious behaviors, allowing hate speech and extremist narratives to normalize without proper consequences. During a lecture at the GamesCom LATAM event, Carvalho (2024) further exemplified these structural deficiencies through the case of game S, where the lack of information systems, reporting channels, and effective punishment mechanisms transformed a simple STOP game into a space for disseminating anti-Semitic comments, emphasizing the need for greater industry commitment to considering objects and non-human elements as prevention tools.

Drawing on agential materialism theory (Barad, 2007), objects in games like weapons, symbols, tools, and construction structures represent more than simple graphic elements, they actively shape player experiences and create emergent narratives. The way these objects are conceived, contextualized, and manipulated can contribute to both inclusion and exclusion of certain behaviors. In games like Fortnite and Call of Duty, elements such as weapons and outfits carry sociocultural implications that affect player perception and interaction, which can be negatively exploited by individuals or groups seeking to propagate extremist ideologies. This understanding of object agency suggests that extremism mitigation can be addressed through intentional design choices from the earliest development stages, moving beyond reactive moderation toward preventive object design.

This preventive approach manifests in games that naturally promote cooperative and inclusive behaviors through their core mechanics. Minecraft exemplifies this through objects designed for collaborative construction, where shared building dynamics encourage players to cooperate in creating larger and more complex worlds, limiting opportunities for destructive or hostile actions within the collective narrative. The game's mechanics and objects reinforce values of cooperation and empathy, reducing opportunities for players with extremist intentions to gain influence. Similarly, Journey (2012) eliminates verbal communication entirely, mediating interaction through simple visual and auditory signals where objects like runes or floating platforms encourage anonymous cooperation. Death Stranding (2019) employs comparable asynchronous cooperation where players leave structures, equipment, and helpful signs for others to discover, creating positive connections without exploitable communication channels. The agency of these objects creates communal gaming experiences that resist extremist narratives by focusing on mutual support through designed cooperation mechanics rather than open communication systems.

Contemporary games also demonstrate how distributed moderation systems can empower players as prevention agents through technical objects. Counter-Strike 2's Overwatch system represents a peer-review mechanism where experienced players evaluate disruptive behavior cases, embodying Latour's concept of distributed agency

through sociotechnical networks. Among Us demonstrate real-time collective decision-making through voting mechanics, where game objects (voting interfaces) mediate community responses to problematic behaviors. Roblox's community-based moderation distributes agency across player networks rather than centralizing control in automated systems alone. These mechanisms transform players from passive participants into active agents of community safety, exemplifying how object agency can be designed preventively rather than reactively. Overwatch's endorsement system further illustrates this approach, allowing players to reward positive behaviors like teamwork and sportsmanship, which not only incentivizes constructive interactions but also tends to isolate players who act negatively within communities, reducing their ability to recruit or influence others. Industry data validates the effectiveness of these object agency approaches. GIFCT's 2025 analysis reveals that AI-driven moderation tools like ToxMod achieved 25-50% reductions in toxic behavior across Call of Duty platforms, while endorsement systems successfully incentivized positive player interactions. However, challenges persist as 43% of gamers report that they do not flag harmful content, with only 26% feeling fully heard when reporting incidents, highlighting the need for more effective distributed agency systems that better empower players as active prevention agents.

Beyond moderation mechanisms, object agency operates through educational and symbolic elements that challenge exclusionary gaming cultures. The inclusion of objects that symbolize diversity and resistance to extremism represents a powerful mitigation approach, particularly significant given that the gaming industry, dominated by white heterosexual men, inadvertently reproduces homogeneous narratives that privilege a standard user perspective often intolerant of diversity (Wells et al., 2024). De Grove et al. (2015) demonstrate that the industry has consolidated a hegemonic image of the gamer as young, white, heterosexual, and male, generating communities hostile to subjects who escape this archetype. In response, games like Assassin's Creed employ historically contextualized narratives and objects to educate players about extremism's dangers and diversity's importance. The franchise's upcoming Assassin's Creed Shadows (2024) exemplifies this through its black samurai protagonist based on the historical figure of Yasuke. Objects such as books, artifacts, and side missions that promote diversity messages while integrating naturally into gameplay serve as powerful tools for challenging exclusionary patterns and fostering inclusive gaming environments.

Game mechanics themselves can reinforce positive values through systemic consequences and rewards. Civilization VI (2016) demonstrates this approach by allowing players to build civilizations where decisions directly influence societal development. By providing contexts in which intolerance results in negative consequences such as war or cultural decline, the game implicitly promotes tolerance and inclusion through its core mechanics. This systemic approach complements direct technological interventions where object agency operates through AI-driven detection and response systems. As Kilmer and Kowert (2024) discuss, virtual objects can be programmed to react specifically to suspicious activities, NPCs in multiplayer environments can respond to extremist behaviors with certain patterns that provide real-time feedback or alert human moderators. Red Dead Redemption 2 exemplifies this through NPCs programmed to respond negatively to violent or prejudiced player behaviors, creating direct social consequences within the game environment.

The challenge of cross-platform extremist operations requires coordinated technological responses that extend beyond individual gaming environments. Extremist actors increasingly operate across multiple platforms, using mainstream gaming services for recruitment before directing users to less moderate spaces. Cross-platform signal sharing addresses this through collaborative frameworks like the GIFCT Hash Sharing Database, which enables platforms to share behavioral patterns and content fingerprints without compromising user privacy. When extremist content or behavior patterns are identified on one platform, these signals alert other gaming services to similar threats, creating a distributed network of prevention that transcends individual platform boundaries (GIFCT, 2025). This represents networked object agency where technical systems collaborate across gaming ecosystems to identify and mitigate extremist exploitation.

These diverse approaches to object agency in extremism prevention can be systematized through a comprehensive Safety by Design framework that integrates preventive design, active detection, automatic response, distributed moderation, positive reinforcement, inclusive environments, and cross-platform signal sharing into a seven-point cycle of protection. This framework demonstrates how Safety by Design principles create comprehensive protection through interconnected technical and social mechanisms, where digital objects, from collaborative tools to AI systems, actively shape player behavior and community dynamics. The effectiveness of preventive design approaches, validated by industry data showing significant reductions in toxic behavior, supports the theoretical proposition that non-human elements possess agency in social construction processes.
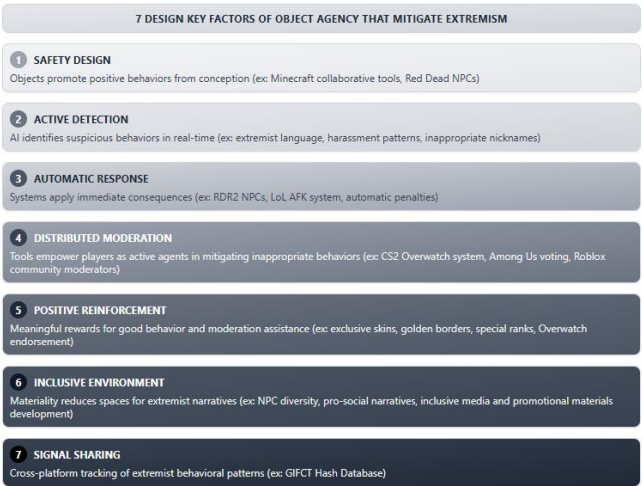

7 DESIGN KEY FACTORS OF OBJECT AGENCY THAT MITIGATE EXTREMISM

1 SAFETY DESIGN
Objects promote positive behaviors from conception (ex: Minecraft collaborative tools, Red Dead NPCs)

2 ACTIVE DETECTION
AI identifies suspicious behaviors in real-time (ex: extremist language, harassment patterns, inappropriate nicknames)

3 AUTOMATIC RESPONSE
Systems apply immediate consequences (ex: RDR2 NPCs, LoL AFK system, automatic penalties)

4 DISTRIBUTED MODERATION
Tools empower players as active agents in mitigating inappropriate behaviors (ex: CS2 Overwatch system, Among Us voting, Roblox community moderators)

5 POSITIVE REINFORCEMENT
Meaningful rewards for good behavior and moderation assistance (ex: exclusive skins, golden borders, special ranks, Overwatch endorsement)

6 INCLUSIVE ENVIRONMENT
Materiality reduces spaces for extremist narratives (ex: NPC diversity, pro-social narratives, inclusive media and promotional materials development)

7 SIGNAL SHARING
Cross-platform tracking of extremist behavioral patterns (ex: GIFCT Hash Database)

Figure 2: Safety by Design Framework for Object Agency in Extremism Prevention. Source: Authors' elaboration.

Figure 2 illustrates this seven-point cycle of object agency in extremism prevention, demonstrating how neomaterialist theory can be operationalized into practical strategies. The analysis reveals that object agency in extremism prevention operate through multiple interconnected mechanisms that extend far beyond traditional content moderation approaches. By integrating neomaterialist principles with empirical evidence from industry implementations, this study demonstrates how game objects, mechanics, and systems function as active participants in creating safer digital environments rather than passive platforms requiring external intervention. This approach transforms gaming

spaces from reactive content moderation toward proactive extremism prevention through distributed human-nonhuman agency networks, establishing a foundation for safer and more responsible game development practices that recognize the crucial role of technological materiality in shaping social dynamics.

6. Conclusion

This article demonstrates that neomaterialist theory provides a robust framework for understanding how digital objects actively participate in preventing extremism in gaming environments. The analysis reveals three key theoretical contributions: first, preventive object agency shows how non-human elements can be designed to discourage extremist behaviors from game conception rather than merely responding to incidents; second, the Safety by Design framework operationalizes neomaterialist principles into actionable strategies for developers; and third, distributed agency across human-nonhuman networks creates more resilient prevention systems than centralized approaches. The seven-point framework represents a paradigm shift from reactive to proactive extremism prevention, validated by industry data showing AI-driven moderation achieving 25-50% toxicity reductions and endorsement systems successfully incentivizing positive behaviors (GIFCT, 2025). However, challenges persist as 43% of players do not report harmful content, highlighting the need for more intuitive and effective reporting mechanisms that leverage object agency principles.

The findings underscore the critical importance of industry commitment to integrating extremism prevention into core design thinking rather than treating safety as an afterthought. Game companies and design teams must embrace the responsibility of considering object agency and non-human elements as fundamental components of the development process from the earliest conceptual stages. This requires a paradigm shift where safety considerations are not relegated to post-launch moderation teams but are embedded within the creative and technical decisions made by designers, programmers, and artists. The evidence presented demonstrates that when object agency principles are integrated into game mechanics, interface design, and virtual environments from conception, they create more effective and sustainable prevention mechanisms than reactive solutions implemented after problematic behaviors emerge. This approach demands that industry professionals recognize their role as architects of social spaces, where every design choice, from character creation systems to communication interfaces, carries potential implications for community safety and extremism prevention.

Implementing effective Safety by Design approaches requires collaboration with multidisciplinary teams that extend beyond traditional game development roles. Psychologists can provide insights into behavioral patterns and radicalization mechanisms. Sociologists can offer perspectives on community dynamics and identity formation, while experts in criminology, human-computer interaction, communication research, and ethics can ensure that preventive measures are grounded in scientific understanding rather than relying solely on technical solutions. This interdisciplinary approach is essential for creating comprehensive prevention strategies that balance community safety with gameplay integrity.

These preventive strategies become particularly crucial within gaming contexts due to documented vulnerabilities inherent in traditional gamer identity construction, where the industry's historical consolidation of a hegemonic gamer identity as young,

white, heterosexual, and male has created communities often hostile to diversity and vulnerable to extremist exploitation. Importantly, competitive gaming mechanics are not inherently problematic, competition can foster skill development, strategic thinking, and community engagement when properly structured. However, when competitive environments lack adequate structural safeguards, they become susceptible to toxic behaviors that create fertile ground for extremist recruitment and radicalization. This demographic concentration, combined with characteristics like anonymous interactions and resistance to perceived outside influences, amplifies these vulnerabilities. The neomaterialist approach to object agency offers a path forward by designing gaming environments that naturally promote inclusive behaviors and resist the formation of exclusive in-group dynamics that extremists typically exploit. By embedding diversity, cooperation, and positive social reinforcement into the very fabric of game mechanics and objects, developers can work to counteract the exclusionary tendencies that have historically made gaming communities susceptible to extremist infiltration while maintaining the competitive integrity that many players value. This approach recognizes that addressing extremism in gaming requires more than content moderation, it demands fundamental reconsideration of how gaming environments shape identity formation and social interaction.

The article acknowledges several important limitations that should inform future research directions. The analysis primarily focused on North American and European gaming platforms and English-language literature, which limits the generalizability of findings to global gaming contexts where cultural variations in object agency effectiveness may differ significantly. The reliance on industry reports and academic literature, while providing valuable insights, could benefit from direct empirical research including ethnographic studies of gaming communities, longitudinal analysis of Safety by Design implementations, and cross-cultural examination of how different societies respond to preventive object agency approaches. Additionally, the rapid evolution of gaming technologies, particularly the emergence of VR, AR, and metaverse platforms, suggests that the neomaterialist framework may require adaptation for new forms of digital interaction and virtual embodiment. Future research should investigate how emerging technologies might necessitate different approaches to object agency and extremism prevention, examine the economic implications of preventive design versus reactive moderation to strengthen business cases for Safety by Design adoption, and explore the potential of machine learning and AI advancement to create more sophisticated forms of preventive object agency. Furthermore, longitudinal studies measuring the long-term impact of Safety by Design implementations on community culture and extremism prevention would provide valuable evidence for the sustained effectiveness of these approaches.

By introducing neomaterialist analysis to extremism prevention research, this work demonstrates how Actor-Network Theory and Agential Materialism inform practical safety interventions and provide evidence-based strategies for proactive prevention. The integration of neomaterialist theory with practical applications represents a significant contribution to academic knowledge and industry practice, establishing a foundation for future research and practices that prioritize community safety through interdisciplinary design approaches.

7. References

Activision (2003) *Call of Duty*, Activision

AMARASINGAM A and KELLEY D (2024) "Hate and Extremism on Gaming Platforms: Insights from Surveys with the Gaming Community", In: *Gaming and Extremism: The Radicalization of Digital Playgrounds*, Edited by L. Schlegel and R. Kowert, Routledge, pages 110-129

APPERLY H T and JAYEMANE D (2017) "A Virada Material dos Game Studies", *Revista do Programa de Pós-graduação em Comunicação, Universidade Federal de Juiz de Fora*, 11(1), pages 1-24

BARAD K (2007) *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Duke University Press, Durham, NC

BENNETT J (2009) *Vibrant Matter: A Political Ecology of Things*, Duke University Press

Blizzard Entertainment (2016) *Overwatch*, Blizzard Entertainment

BRAIDOTTI R (2006) *Posthuman, All Too Human: Towards a New Process Ontology*, Polity Press/Blackwell, Cambridge, UK and Malden, MA

CARA D (2022) "Relatório O extremismo de direita entre adolescentes e jovens no Brasil: ataques às escolas e alternativas para a ação governamental", https://nucleo.jor.br/content/files/2022/12/gt_extremismo_escolas.pdf

CARVALHO E, CARVALHO G E and FONTES F L (2022) "Jogando juntos e separados: As contribuições dos videogames durante a pandemia", In: *XXII Encontro Nacional de Estudos Populacionais*, ABEP

CARVALHO G E (2024) "Presentation on Game S Case Study", *GamesCom LATAM Event*

CARVALHO G E and ROCHA V G (2014) "Cyberbullying em jogos online – categorização dos conteúdos, levantamento nacional dos jogadores e perfil das vítimas", Master's Thesis, Universidade Tuiuti do Paraná

DE GROVE F, COUTYOIS C and LOOY J V (2015) "How to be a gamer! Exploring personal and social indicators of gamer identity", *Journal of Computer-Mediated Communication*, 20, pages 346-361

DELEUZE G and GUATTARI F (1992) *O que é a filosofia?*, Editora 34, Rio de Janeiro

Epic Games (2017) *Fortnite*, Epic Games

Firaxis Games (2016) *Civilization VI*, 2K Games

GASI F (2023) "Entrar no jogo digital – O videogame enquanto imersão, intimidade e afeto: os desdobramentos subjetivos de uma vivência simbólica", Doctoral Thesis, Pontifícia Universidade Católica de São Paulo

GLOBAL INTERNET FORUM TO COUNTER TERRORISM (2025) *Prevent, Detect, and React: a framework for countering violent extremism on gaming surfaces*, GIFCT

InnerSloth (2018) *Among Us*, InnerSloth

KILMER E and KOWERT R (2024) "Addressing Toxicity and Extremism in Games: Conversations with the Video Game Industry", *Games and Culture*, pages 1-23, DOI: 10.1177/15554120241265139

Kojima Productions (2019) *Death Stranding*, Sony Interactive Entertainment

KOWERT R, KILMER E and NEWHOUSE A (2024) "Taking it to the extreme: prevalence and nature of extremist sentiment in games", *Frontiers in Psychology*, 15, 1410620, https://doi.org/10.3389/fpsyg.2024.1410620

LAKHANI S (2021) "Video Gaming and (Violent) Extremism: An Exploration of the Current Landscape, Trends, and Threats", CIVIPOL, EUIF Technical Meeting on Video Gaming

LAKOMY M (2017) "Let's Play a Video Game: Jihadi Propaganda in the World of Electronic Entertainment", *Studies in Conflict and Terrorism*, 42, pages 1-20, DOI: 10.1080/1057610X.2017.1385903

LATOUR B (2012) *Reagregando o social: uma introdução à teoria do ator-rede*, Edufba

LEMOS A (2015) "Por um modo de existência do lúdico", *Contracampo*, Niterói, 32(2), pages 4-17, DOI: 10.22409/contracampo.v0i32.732

MENDES N (2024) "Gamergate: games e gamers contextualizados sob a lógica cultural do capitalismo tardio", Undergraduate Thesis, Universidade Federal do Rio Grande do Sul, Porto Alegre

Mojang Studios (2011) *Minecraft*, Microsoft Studios

Nintendo (2017) *The Legend of Zelda: Breath of the Wild*, Nintendo

PECKFORD A (2020) "Right Wing Extremism in a Video Game Community? A Qualitative Content Analysis Exploring the Discourse of the Reddit GamerGate Community r/KotakuInAction", In: *A Closer Look in Unusual Times: Criminological Perspectives from Crim 862*, pages 65-80

PGB (2024) "Pesquisa Game Brasil 2024", https://www.pesquisagamebrasil.com.br/pt/edicao-gratuita/

Riot Games (2009) *League of Legends*, Riot Games

Riot Games (2020) *Valorant*, Riot Games

Roblox Corporation (2006) *Roblox*, Roblox Corporation

Rockstar Games (2013) *Grand Theft Auto V*, Rockstar Games

Rockstar Games (2018) *Red Dead Redemption 2*, Rockstar Games

SCHLEGEL L (2022) "At least I tried, God damnit and Even a drop in the ocean is still more than nothing: In their own words, what motivates people to work in P/CVE?", *Critical Studies on Terrorism*, 15(4), pages 945-962, DOI: 10.1080/17539153.2022.2089399

SCHLEGEL L and KOWERT R (2024) *Gaming and Extremism: The Radicalization of Digital Playgrounds*, Routledge, DOI: 10.4324/9781003388371

Thatgamecompany (2012) *Journey*, Sony Computer Entertainment

Ubisoft (2007) *Assassin's Creed*, Ubisoft

Ubisoft (2024) *Assassin's Creed Shadows*, Ubisoft

Unknown Worlds Entertainment (2018) *Subnautica*, Unknown Worlds Entertainment

Valve Corporation (2020) *Half-Life: Alyx*, Valve Corporation

Valve Corporation (2023) *Counter-Strike 2*, Valve Corporation

WELLS G, ROMHANYI A, REITMAN J G, GARDNER R, SQUIRE K and STEINKUEHLER C (2024) "Right-wing extremism in mainstream games: A review of the literature", *Games and Culture*, 19(4), pages 469-492, https://doi.org/10.1177/15554120231167214