

# Generative AI in Virtual Reality Communities: A Preliminary Analysis of the VRChat Discord Community

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## Abstract

As immersive social platforms like VRChat increasingly adopt generative AI (GenAI) technologies, it becomes critical to understand how community members perceive, negotiate, and utilize these tools. In this preliminary study, we conducted a qualitative analysis of VRChat-related Discord discussions, employing a deductive coding framework to identify key themes related to AI-assisted content creation, intellectual property disputes, and evolving community norms. Our findings offer preliminary insights into the complex interplay between the community's enthusiasm for AI-driven creativity and deep-rooted ethical and legal concerns. Users weigh issues of fair use, data ethics, intellectual property, and the role of community governance in establishing trust. By highlighting the tensions and trade-offs as users embrace new creative opportunities while seeking transparency, fair attribution, and equitable policies, this research offers valuable insights for designers, platform administrators, and policymakers aiming to foster responsible, inclusive, and ethically sound AI integration in future immersive virtual environments.

## CCS Concepts

• **Human-centered computing** → **Empirical studies in collaborative and social computing**; **Empirical studies in HCI**.

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## Keywords

Human-ai collaboration, AI assistant, user experience, online community

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## 1 Introduction

Generative Artificial Intelligence (GenAI) has rapidly gained prominence within the HCI community, influencing a range of domains including machine learning [26, 32], image and video generation [38, 75, 91], and text and audio processing [47, 67]. Its creative capabilities have drawn substantial attention from content creators in various fields [34, 44], art [6, 25, 48], education [13, 33, 45, 96], research [4, 49, 86, 94], and entertainment [39, 50, 78]. After many years of iterative development, GenAI now frequently serves as a key engine for both innovation and debate [27]. On the one hand, it lowers creative barriers and production costs, enhances efficiency, and broadens access to high-quality content on social media and other digital platforms. On the other hand, its potential to generate misleading or low-value content raises concerns around misinformation [31, 72, 102], subtle manipulation [30, 88, 97], and an overall homogenization of digital discourse [56, 58]. Consequently, understanding how these communities produce, respond to, and govern GenAI-related content is both timely and critical.

While GenAI's impact on static social media platforms has been extensively discussed [5, 20, 50, 53, 85, 98], its role within immersive social environments warrants closer examination. Social virtual reality (VR) platforms, such as VRChat, represent a unique and multifaceted domain where users actively co-create and share

immersive experiences integrating text, images, audio, and interactive 3D objects, avatars, and worlds [2, 14, 43]. Our study focuses on the VRChat community<sup>1</sup>, utilizing Discord, VRChat’s largest and most active external communication hub, as a primary data source. The Discord VRChat channel, as of November 21, 2024, boasts over 302,000 members<sup>2</sup>, making it an extensive and diverse platform for examining community interactions. The server comprises numerous subchannels catering to various aspects of VRChat, including technical support (e.g., “user-support”, “ai-support”), content creation and sharing (e.g., “vrchat-pictures”, “vrchat-fan-art”, “vrchat-videos”), VR hardware discussions (e.g., “Oculus Quest”), avatar customization, and development topics. This structured organization fosters specialized discussions while reflecting the rich and complex ecosystem of VRChat. Discord VRChat adheres to the Discord Terms of Service<sup>3</sup> and is actively moderated by VRChat’s official administrators to ensure compliance with community guidelines. Hate speech, spam, and unethical content, such as hacking, piracy, or polarizing political and religious topics, are strictly prohibited. Furthermore, the channel remains open for any non-restricted users to join freely<sup>4</sup>, providing an inclusive and vibrant space for collaboration and discourse.

VRChat appears to be among the early platforms exploring the integration of GenAI into real-time, user-generated content creation. This integration extends beyond aesthetic enhancements to influence collective norms, ethical considerations, and creative practices. Users engage with AI-driven tools like image upscaling, avatar detection, voice cloning, and other generative functionalities. While some prior work has investigated AI’s effects on design and user experience within Social VR [1, 15, 54, 57, 66, 68, 84], relatively little scholarly attention has been given to the social and cultural dynamics underpinning GenAI adoption in these communities. In this preliminary study, we focus on how VRChat community members on a large Discord server perceive, negotiate, and apply GenAI to design and develop virtual objects and experiences. We seek to illuminate evolving norms, values, and tensions within these immersive communities by drawing inspiration from frameworks that have examined GenAI’s roles in various contexts [36]. We propose the following research questions:

- **RQ1.** How does the integration of AI-driven content creation tools (e.g., image upscaling, avatar detection, AI model suggestion) influence the co-creative practices, collaborations, and artistic outputs of VRChat?
- **RQ2.** How do VRChat community members perceive and negotiate the ethical dimension of using GenAI (e.g., AI-generated art) within immersive social environments?

By analyzing Discord discussions centered on VRChat, this study offers preliminary insights into how GenAI is perceived, negotiated, and utilized within immersive virtual environments. We explore the potential interplay between GenAI capabilities and community-driven creative ecosystems, offering early insights that might help

guide researchers, designers, and policymakers toward a more responsible, inclusive, and meaningful integration of GenAI in future Social VR environments.

## 2 Methods

### 2.1 Data Collection and Processing

We collected a total of 3,802,699 messages from nine main VRChat Discord channels (comprising 54 subchannels) spanning from November 30, 2022 (12:00 AM AOE) to June 12, 2024 (12:00 AM AOE). Each record corresponded to a single user message, including only its textual content and a timestamp, with all user-identifiable information excluded from the analysis. In this preliminary study, we focused primarily on textual data. After a preliminary inspection of data types, we excluded three subchannels that primarily contained images or videos and were thus outside the scope of textual analysis: “General->vrchat-pictures”, “General->vrchat-videos”, and “General->starboard”. Combining all remaining channels yielded a dataset of 1,048,428 messages.

Next, we employed the NLTK library<sup>5</sup> to preprocess each message by removing English stop words. Following established practices recommended in related work [11, 51, 82] and guided by our own experience, we further excluded all messages that, after stop word removal, contained fewer than 10 words. This filtering step aimed to eliminate potentially uninformative short texts, resulting in a reduced dataset of 997,878 messages. We then developed a keyword list related to AI and GenAI (e.g., model names and relevant technical concepts) by manually coding a randomly sampled data subset. Four coders participated in multiple iterative rounds of coding until no new terms emerged. Subsequently, we filtered out non-English messages, yielding a final subset of 8,908 messages deemed AI-related.

**2.1.1 Topic Modeling.** Topic modeling helps uncover latent thematic structures rather than relying solely on keyword search [7]. The Discord messages, however, are relatively short, sparse, noisy, and often uninformative, posing significant challenges for producing accurate topic models. Previous studies have highlighted the effectiveness of topic modeling techniques in extracting thematic structures from such short text datasets, making them an effective method for identifying underlying themes and patterns [46, 65]. We employed Latent Dirichlet Allocation (LDA) [8] for topic modeling. The LDA, alpha, and beta parameters were set to the default values of 1.0 divided by the number of topics. To determine the optimal number of topics, we calculated the coherence scores for topic numbers ranging from 2 to 20 [79, 80]. The coherence analysis suggested that 9 topics was the optimal number. Table 1 presents the topic distribution resulting from applying LDAvis [74] with 9 topics, each containing multiple keywords.

Since our focus is on VR and GenAI-related themes, we selected Topic 5 and Topic 7 as our main candidates for further analysis. In our topic modeling results, Topic 5 prominently featured the keyword “avatar” as one of its key terms, with a weight of 0.012, which we deemed likely to be highly relevant to VR and GenAI. Similarly, Topic 7 also included the keyword “avatar”, ranking second in importance with a weight of 0.022. While it is possible that

<sup>1</sup><https://hello.vrchat.com/>

<sup>2</sup>[https://wiki.vrchat.com/wiki/Discord\\_servers#VRChat](https://wiki.vrchat.com/wiki/Discord_servers#VRChat)

<sup>3</sup><https://discord.com/terms>

<sup>4</sup><https://discord.com/invite/vrchat>

<sup>5</sup><https://www.nltk.org/>

other topics also contain relevant content, focusing on Topic 5 and 7 appears to more effectively capture content related to VR and GenAI. After compiling data from Topic 5 and 7, we arrived at a corpus of 1,798 messages (910 messages from Topic 5, and 888 messages from Topic 7) for use in this study.

## 2.2 Data Analysis

We adopted a mixed technique combining inductive and deductive coding to extract themes. During the independent coding phase, three coders independently performed open coding on 150 randomly selected entries from the corpus. Each pair of coders coded 50 overlapping entries (a total of 300 entries). Subsequently, four coders conducted an entry-by-entry discussion of the independent coding results, developing the codebook by comparing and integrating the independent codes. During this stage, the coders held multiple meetings to connect and organize categories and concepts based on their relationships, resulting in an initial codebook containing 48 codes (including “0. Irrelevant” and “47. Irrelevant but interesting”, and 3 codes are merged into other codes during the development of codebook).

Next, two primary coders independently applied deductive coding using the initial codebook on an additional 100 entries, calculating the inter-rater reliability (IRR) with Cohen’s kappa = 0.64, indicating a relatively high level of agreement. Given that the agreement might decrease as the number of codes in the codebook increases [42], and considering the size of our codebook, we employed additional strategies [17] to promote consistency. Specifically, three primary coders engaged in multiple rounds of discussion to resolve differences and ambiguities identified in the initial codebook, merging two sets of conceptually similar codes (involving five codes) to finalize the codebook with 45 codes. Furthermore, the researchers provided a clear, consensus-based definition for each code to distinguish subtle differences between codes and guide the subsequent deductive coding process. Finally, two coders used the finalized codebook and its definitions to support understanding to code the remaining data in the corpus. The codebook and its summarized definitions are detailed in Appendix Table 2.

## 3 Findings

This section presents our preliminary findings on GenAI’s integration within VRChat. Drawing on Discord discussions, we identify two key dimensions: the practical use of AI for content creation, game design, and resource management, and the ethical implications emerging in these virtual spaces. Our analysis highlights both the potential innovations and challenges associated with AI adoption. Overall, these early insights are tentative and set the stage for further exploration of how GenAI may reshape creative practices and governance in immersive environments.

### 3.1 GenAI Integration in VRChat Co-Creative Practices

**3.1.1 AI-Enhanced User-Generated Content Creation.** Users widely adopt AI tools to streamline content creation processes, particularly for texture upscaling and custom asset generation: - **AI Upscaling for Texture Enhancement:** AI upscaling allows creators to transform low-resolution textures into high-quality assets suitable

for VRChat environments. This practice is particularly valuable for maintaining compatibility with Quest platforms while preserving visual fidelity. One user noted, “*Few times ive shoved very low resolution textures (128x128) and upscaled them to 512 / 1024, tons of ai upscalers out there.*” - **AI Generation for Custom Textures:** When conventional resources are unavailable, creators turn to AI tools for generating unique textures, integrating them into workflows alongside traditional tools like Photoshop and Blender. For instance, a user shared, “*...didn't find weeping willow textures so I generated them with AI image generator. Then aligned it properly in Photoshop...*”

**3.1.2 AI Applications in Game Design Mechanics.** The community actively experiments with AI to enhance non-player character (NPC) behaviors and combat systems: - **AI-Driven NPC Behaviors:** Users aim to create dynamic NPCs capable of toggling between actions such as patrolling, engaging, and running, enhancing VRChat world interactivity. For example, “*an ai system that toggles states intuitively between shooting, patrol, and running.*” - **Combat AI and Adaptive Mechanics:** AI is used to design adaptive difficulty systems, balancing engagement and challenge. One participant commented, “*the more u win, the more the AI would rubberband... this kind of adaptive difficulty is annoying tbh lol.*”

**3.1.3 AI’s Role in Ideation and Creativity.** AI tools serve as a dual-purpose resource for ideation and content refinement. For instance, one user described using AI to prototype avatar concepts: “*ive been using ai to help concept my eventual new avatar and its been really useful for that..*” Additionally, discussions highlight a collaborative dynamic where human creativity complements AI, as exemplified in “*Creating this very interesting symbiotic relationship between human-made, and AI-generated rhythm maps.*”

**3.1.4 AI Resource Allocation and Infrastructure.** AI applications in VRChat demand significant computing power, particularly for GPU-based workloads: - **GPU Requirements:** Users frequently discuss the importance of high VRAM and tensor core counts for running AI models effectively. For instance, “*I was considering 3060 12gb for the VRAM but i couldn't accept the lower tensor core counts.*” - **Accessibility Challenges:** High costs remain a barrier for many users interested in leveraging AI for creative purposes. One participant remarked, “*if i could afford that stuff i would def make a dedicated pc for a[n] AI.*”

### 3.2 Ethical Implications of GenAI in VRChat Community

**3.2.1 The relationship between AI simulation and reality in VRChat social spaces.** The VRChat community engages in nuanced discussions about the interplay between AI simulation and reality in virtual social spaces, reflecting both enthusiasm for AI’s creative potential and concerns about its ethical implications. For instance, **AI Simulation and Social Interaction:** AI tools in VRChat are increasingly used to simulate social interactions, leading to debates about their authenticity and impact. One user shared their experience of creating a chatbot for social spaces: “*I got bored last weekend and made a version of my Speech to Text / TTS App into a chatbot... gave me hours of enjoyment watching people communicate with the bot.*” This highlights the community’s interest in leveraging AI to

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	Term 7	Term 8	Term 9	Term 10
Topic 0:	0.023**user	0.013**world	0.013**issue	0.011**help	0.011**follow	0.011**open	0.010**information	0.010**kapa	0.009**one	0.009**work
Topic 1:	0.023**command	0.016**transform	0.014**issue	0.014**fix	0.011**window	0.011**use	0.010**could	0.009**rotation	0.008**back	0.008**everything
Topic 2:	0.043**unity	0.040**udon	0.037**editor	0.021**public	0.019**sdk	0.017**kapa	0.017**player	0.016**udonsharp	0.015**api	0.014**graph
Topic 3:	0.014**model	0.012**image	0.011**way	0.010**folder	0.010**still	0.010**position	0.010**menu	0.009**even	0.009**really	0.009**time
Topic 4:	0.027**player	0.023**world	0.014**private	0.012**value	0.012**instance	0.012**could	0.011**kapa	0.011**com	0.010**doc	0.010**something
Topic 5:	0.027**system	0.027**error	0.027**object	0.021**kapa	0.018**package	0.015**new	0.013**world	0.012**avatar	0.010**one	0.010**void
Topic 6:	0.291**friendly	0.083**bot	0.061**support	0.053**kapa	0.044**base	0.017**answer	0.014**vcc	0.008**unity	0.008**blender	0.008**disable
Topic 7:	0.024**kapa	0.022**avatar	0.020**unity	0.020**could	0.019**quest	0.012**script	0.012**use	0.012**link	0.011**one	0.011**click
Topic 8:	0.120**question	0.110**knowledge	0.108**wave	0.108**answer	0.096**support	0.094**base	0.080**kapa	0.079**bot	0.005**float	0.005**station

**Table 1: The results of the LDA topic modeling analysis on the corpus. Each topic is represented by weighted terms (top 10 highest). The subtopics we focus on (“avatar”) are highlighted in red, and the topics we choose for further in-depth analysis are highlighted in gray.**

enhance engagement in social spaces, though it also raises questions about the distinction between human and AI participants. However, some users express concerns about the potential misuse of AI in these contexts. For example, one participant noted, “*Some people were very aggressive to it[,] which was funny as well XD*” This reflects a broader discussion about the ethical responsibilities associated with AI moderation and user behavior in virtual environments.

**3.2.2 Governance frameworks for AI-generated content within VRChat.** As AI-generated content becomes more prevalent in VRChat, community members and developers discuss governance frameworks for managing its use and impact. These frameworks address issues such as content moderation, user safety, and ethical behavior. For instance, **Challenges of Training and Moderating AI in VRChat:** Developing AI for VRChat involves significant challenges, particularly in training models to behave appropriately in complex social contexts. One user remarked, “*can confirm, I already have my own AI[,] and moderating it has been a LOT of work.*” This sentiment underscores the difficulty of ensuring that AI behaves responsibly and aligns with community norms.

The use of AI for content moderation also emerged as a recurring topic. For instance, a user stated, “*They just make new accounts... need some AI system that says yes and no to certain pictures.*” Such discussions emphasize the need for robust AI tools to manage harmful behavior while balancing the community’s creative freedom. For more details of discussion in **Governance of AI Systems and Community Rules:** Users frequently discuss the role of AI in maintaining community rules and preventing misuse. For instance, one user proposed, “*i think if those things exist then why not AI world filterization could not exist? i mean you could teach world AI before any world loads up to scan for all existing colliders, shaders, and so on, to be disabled.*” This reflects a desire to incorporate AI into proactive moderation systems that ensure safety and compliance with community standards. Additionally, moderation frameworks often combine AI with human oversight, as noted in the comment, “*I believe the TOS specified a human would review the AI flagged reports.*” This hybrid approach seeks to balance efficiency with ethical responsibility in governance.

**3.2.3 Ethical considerations and debates.** The rise of AI-generated content in VRChat has sparked debates about its authenticity and ethical implications. One user noted, “*...thankfully, we[’re] still able to spot AI art from miles away,*” reflecting skepticism toward AI-generated visuals in certain creative contexts. Another user described labeling thousands of images to train their VRChat AI,

noting, “*labeling 1426 avatar images by hand for so that my vrchat ai can see people is no fun.vrcCrying:*” These examples illustrate the labor-intensive nature of AI development and the potential ethical concerns tied to the authenticity of AI outputs in social and creative spaces. Specifically speaking, the rapid integration of GenAI into the VRChat ecosystem has sparked significant ethical debates. These discussions span various dimensions, including the originality of AI-generated content, copyright concerns, and the broader implications for creativity and artistic expression. Among these, the most central and hotly debated issue is precisely the **Originality and Perception of AI-Generated Content** and its standing in the creative domain. The originality of AI-generated art and its role within creative spaces remain contentious. A user expressed frustration, stating, “*its all yellow dogs ai art isn’t original no one cares :LaffeyStare:*” while another noted, “*innn conclusion, selling ai art is a form of degeneracy and scamming.*” Such sentiments reflect skepticism toward AI’s ability to produce art that rivals human-created work, with critics arguing that AI lacks the soul or quality inherent in human artistry. However, there is acknowledgment of the utility of AI in specific contexts. One user remarked, “*i really don’t hate the idea of ai generated stuff, but i will never put on the same pedestal as hand work.*” This highlights a nuanced perspective: while AI has its uses, it is often perceived as a tool to complement rather than replace human creativity.

Another topic under discussion is **Copyright Issues and the Ethics of Training Data**, as people believe that using existing datasets to train AI systems may raise significant ethical concerns. A participant commented, “*...services like copilot that are monetized should at minimum give commission to the unwitting developers the team scraped code from, or outright be free.*” This critique underscores the ethical obligation to credit and compensate creators whose work forms the foundation of AI models. Another user highlighted potential risks tied to artistic theft: “*I wouldn’t upload anything from DA just because it’s SUPER prone to AI and theft... Not to mention malicious packages.*” These discussions emphasize the need for clearer governance frameworks to address copyright violations and ensure ethical use of training data.

Furthermore, ethical considerations have sparked discussions in the VRChat community about specific areas, such as **the Role of AI in Shaping Artistic Visions**, particularly the broader impact of AI on artistic perspectives. One user described AI-generated designs as “*...it is an abhorrent plague and lacks any soul or quality to the viewer of the work if said viewer ever wishes to take a closer work at the art.*” Such concerns reflect fears that reliance on AI may

dilute creative standards. Conversely, others see potential in AI for experimental projects, as one user stated, “*I think generative AI will continue to be endlessly interesting for experimental projects where it’s okay if things get a little weird and off the rails...*” This duality underscores the evolving role of AI in creativity, balancing its potential for innovation with concerns about its impact on artistic authenticity. Another specific area is **AI in Security and Moderation**, driven by concerns about the misuse of artificial intelligence. One user recounted, “*I angered some script kiddies who make AI VRC bots... I saw them selling accounts,*” highlighting the potential for AI to facilitate harmful activities. Such incidents demonstrate the ethical imperative for robust moderation and governance systems to prevent abuse.

## 4 Discussion

### 4.1 GenAI’s Role in Co-Creative Practices

*Expanding the Accessibility of Creation.* The application of GenAI tools in UGC demonstrates how these technologies democratize creative practices. AI tools such as texture upscalers and image generators reduce the technical expertise required for creating high-quality content, thereby increasing engagement within the VRChat ecosystem. These findings align with research highlighting how AI serves as an “equalizer,” enabling novice users to participate in creative practices that were previously accessible only to experts [3, 28, 64]. By lowering the barriers to content creation for ordinary users [81], GenAI significantly enriches community content [50]. Once technology ceases to be a closed door hindering content creation, innovative ideas may emerge from practices far exceeding the number of expert users. Before that, we need to get more people involved in the process (by using GenAI) [62].

However, while GenAI lowers technical barriers, it also introduces new challenges. The community has highlighted issues such as inconsistent quality and the need for post-processing to achieve professional-grade results [59]. This suggests that future GenAI tools should prioritize user-guided customization and seamless integration with traditional creative software, fostering hybrid workflows that retain human control over outputs [95]. Moreover, it is worth noting that the barrier GenAI currently breaks is merely a “wooden door,” indicating that the creative industry still requires the participation of experts. Knowledge-intensive aspects of content creation (e.g., design specifications, styles, scripts, storyboarding, and other more detailed focus) continue to necessitate learning and expertise [63].

*4.1.1 Enhancing Immersion Through Game Mechanics.* The VRChat community’s experimentation with AI-driven game mechanics reflects a broader trend toward dynamic, adaptive systems in virtual environments. Features like AI-controlled NPCs and customizable combat behaviors not only enrich gameplay but also address the challenge of maintaining meaningful interactions in asynchronous spaces [77]. The GenAI actually enhanced these kind of features more than traditional AI. This finding is consistent with prior studies that highlight AI’s role in fostering player engagement through adaptive mechanics [52, 90]. Despite these advancements, the results also highlight potential pitfalls of poorly calibrated systems,

particularly with GenAI being less controllable compared to traditional AI [18] (or algorithms based methods [23, 40, 60, 69, 93, 100]) and often misaligned with human goals [10, 61, 62]. For instance, when adjustments feel arbitrary or excessive, adaptive difficulty may inadvertently frustrate users. To address this, designers should prioritize the transparency of AI-driven mechanisms, enabling players to understand and influence system behavior. Interactive feedback loops, for example, can enable users to dynamically adjust AI responses, ensuring a balance between challenge and enjoyment. While this concept has been frequently discussed in earlier researches [9, 12, 70, 77, 92], GenAI has the potential to accelerate the implementation of such feedback loops and deliver feedback that better aligns with user needs [87].

*4.1.2 Facilitating Human-AI Collaboration in Ideation.* GenAI’s role in ideation and creative processes highlights its potential to act as a collaborative partner. By generating initial concepts or visual references, AI accelerates the early stages of creation, allowing users to focus on refinement and customization. This supports the concept of “human-AI co-creativity,” where human intuition/perception and AI efficiency complement each other [19, 49, 55, 101]. However, the findings also reveal that some users remain skeptical about AI’s creative contributions, particularly in contexts where originality and artistic vision are paramount. These concerns suggest that the success of human-AI collaboration depends on striking a balance between automation (robustness, efficiency, usability, accessibility) and agency (explainability, transparency, consistency). Future research could explore how iterative design processes integrate AI tools while preserving the creative intent of users, particularly in highly personalized contexts like avatar design.

### 4.2 Navigating Ethical Dimensions of GenAI

*4.2.1 Balancing Authenticity and Innovation.* The relationship between AI simulation and social dynamics raises important questions about authenticity in virtual environments. AI-driven agents offer new opportunities for engagement [61] but also challenge traditional notions of interpersonal interaction. For example, while some users appreciate the novelty of AI-generated interactions, others express concerns about their impact on social cohesion and trust. These findings emphasize the need for transparency mechanisms to help users distinguish between AI and human participants. Labeling AI agents and providing clear disclosures about their capabilities could mitigate concerns about deception while fostering informed interactions. Additionally, integrating user feedback into the development of AI agents could help align their behavior with community norms, ensuring that they contribute positively to the social fabric of VRChat.

*4.2.2 Governance for Moderation and Safety.* As GenAI becomes more prevalent, the community’s emphasis on governance frameworks reflects broader concerns about ethical AI deployment [21, 35, 41, 73, 76]. Hybrid moderation systems that combine AI automation with human oversight offer a promising solution for managing content in complex virtual environments [24, 83]. These systems can address scalability challenges while maintaining the nuanced decision-making required for sensitive issues. However, the success

of such frameworks depends on their adaptability and inclusivity. Participatory design approaches, where community members actively contribute to governance policies, could enhance their effectiveness and legitimacy [89]. Additionally, establishing clear accountability mechanisms for AI moderation systems would help address concerns about bias or unintended consequences, ensuring that they align with community values [16, 22, 37, 71].

**4.2.3 Addressing Copyright and Attribution in AI Art.** The debates about AI-generated content highlight significant ethical tensions, particularly around originality and intellectual property issues. While some users view AI as a valuable tool for accelerating workflows, others criticize its reliance on uncredited datasets. These concerns echo broader discussions in AI ethics about the need for fair data usage and attribution practices [10, 99]. To address these issues, platforms like VRChat could implement metadata systems to trace the provenance of AI-generated content, ensuring transparency in its creation. Additionally, licensing models that provide compensation to original creators could help resolve tensions around data exploitation [29]. These measures would not only promote ethical AI use but also foster trust among creators who rely on these tools.

### 4.3 Implications for Design and Policy: Balancing User Agency and Ethical AI Design

As GenAI tools become an integral part of co-creation practices in virtual worlds, a key challenge lies in balancing automation with user agency while ensuring ethical alignment. One overlooked aspect is how AI tools can evolve to accommodate diverse creative workflows without compromising control or originality. For instance, inspired by the application of GenAI in adaptive game mechanics, future AI systems could integrate adaptive learning mechanisms that adjust their behavior over time based on individual user preferences, dynamically evolving with creators' skill levels and styles. This approach not only enhances user autonomy but also mitigates frustration associated with one-size-fits-all solutions. On the other hand, ethically aligned AI design in virtual worlds requires proactive consideration of the long-term impact on community norms and creative standards. Introducing AI-generated content without proper attribution or clear standards may increase reliance on AI while overlooking human creativity, potentially undermining the collaborative essence of VRChat. Therefore, we emphasize the importance of viewing AI as a co-creator rather than a replacement. Developers and policymakers can uphold the creative integrity of the community while embracing technological innovation by fostering this perspective.

## 5 Conclusion and Future Work

GenAI is reshaping the VRChat community by stimulating creativity while also raising ethical concerns. Its integration demands collaborative governance and carefully considered design in order to harness its potential responsibly. Our study centers on the Discord VRChat community, which may not fully capture the real-time interactions occurring in VRChat. Notably, our preliminary analysis did not rely on strict sequential contextual analysis. We

employed a broader thematic modeling approach along with qualitative methods to associate related data. Future work could break down conversations into smaller dialogue pieces to better capture the context. It may also help us further understand various aspects of GenAI in VRChat by exploring differences among users on different platforms (such as Reddit and other forums). We need to study how people's views on AI change over time as the technology grows and its uses spread. These steps can help us learn more about the impact of AI on virtual social environments.

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## A VRChat Discord Server Interface

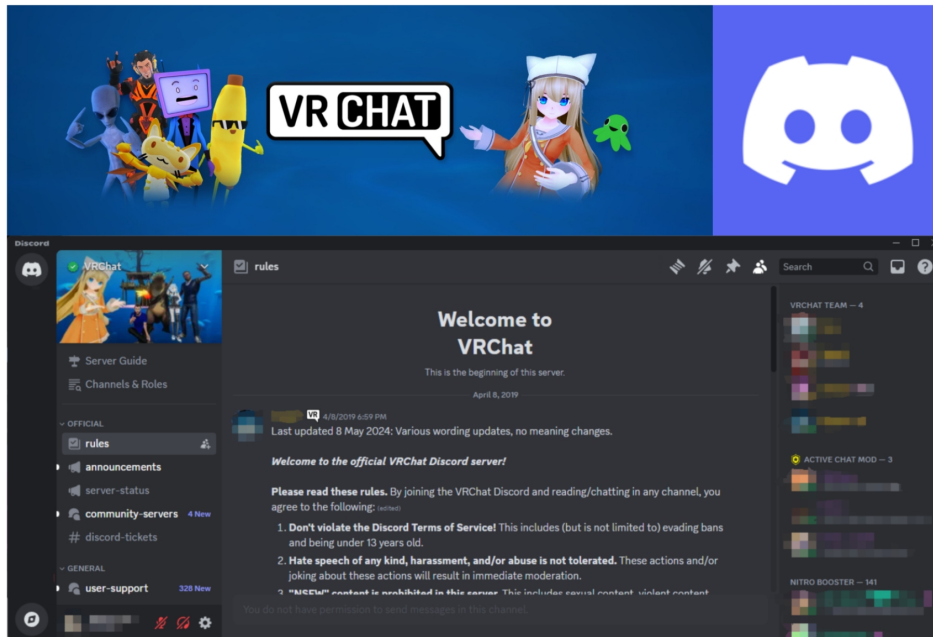


Figure 1: A screenshot of the official Discord server for the VRChat community. The upper left section features a VRChat-themed banner with various characters, including avatars commonly seen in the VRChat platform. The upper right section features a logo of discord. Below the banner, the Discord interface is visible, showing the server’s channel list on the left, including sections like “rules,” “announcements,” “user-support,” and “community-servers.” The main content area highlights the “rules” channel, welcoming users to the server and displaying the community guidelines. The interface also includes user activity on the right-hand sidebar, listing roles such as “VRChat Team,” “Active Chat Mod,” and “Nitro Booster.”

## B Codebook with Definition

Theme	Sub-themes	Index	Code	Definition
AI in UGC (156)	AI image design and enhancement (40)	18	AI for enhancement	enhance some existing things. e.g., upscale photos/video, make it better
		23	AI image upscaling	improve/enhance image
		20	AI image design	image design
		22	ai image fair use	use ai in an appropriate/reasonable way for image in general
	AI scripting (94)	27	AI in scripting	anything about scripting processing/dealing with
		31	AI scripting capabilities and limitations	more specific comments about scripting capabilities or limitation
		16	AI for 3D animation	focus on animation in the creation/development process
	AI avatar (13)	37	avatar detection	detect avatar/ focus on avatar
		33	AI voice cloning concerns	the shared concerns about voice cloning.
	AI audio/voice (9)	34	AI voice detection	focus on cloning/generating same type of voice using ai
26		AI in PVE game	detect the AI voice	
AI in game design (8)	25	AI in game design	the application of AI in PVE, focus on PVE	
	25	AI in game design	focus on game design	
AI in Idea and creation (75)	7	AI art generation	an action/behavior of creating (more about art). e.g., let ai to implement an action or behavior	
	8+17+24	AI art generation offer/AI for creation/AI in content creation	general AI creation/idea/inspiration	
AI models and tools (249)	29	AI model suggestion	suggest how and what to use when comparing with different ai models	
	30	AI model usage	description of the usage of an AI model	
	44	inquiry about AI art tool	ask about ai art tool suggestions.	
	15	AI experimentation	run experiment on the server with AI	
	41	follow AI support	follow the ai/chatbot/ advice/suggestion on the discord server	
AI resource and infrastructure (99)	19	AI for movement tracking	VR movement track	
	38	computing resources	software and hardware resources/infrastructure for computing using ai	
	42	hardware for movement tracking	focus on hardware in the movement track	
AI simulation and reality (17)	43	image model training details	description of image model training	
	46	Re-train AI to make it real	retrain ai to make it sound like a real aged persona	
	32	AI user simulation	use AI programming to recreate users based on user's pics.	
AIGC governance (14)	45	Manual vs AI moderation	discuss the method of moderating/regulating/banning ai art work	
	4	AI art filtering	filter/select and remove/ pick up ai art	
	11	AI content filtering	filter/select and remove/ pick up ai art	
	35	AI voice moderation	differentiate the vice and ban/remove some voice	
AIGC copyright/ethic/debate (92)	1+21	AI art check	detect image/find/identify/compare/check	
	AI art ethics (16)	2	AI art ethics	ethics/users' usage ethic concerns. The focus is on the art, not the artist
		9	AI art legal issues	legal issue/lawsuit/ip issue
		3	ai art fair use	use ai in an appropriate/reasonable way for art in general
		6	AI Art free	ai art should be free of usage/not paid
		14	AI dataset ethics	dataset usage of art training
	5	AI art for commission art	Make ai art personalized/stylized art. In art, a commission is the act of requesting the creation of a piece, often on behalf of another.	
	AI art copyright (9)	12	AI copyright debate	debate/argue/discuss ai copyright
		40	Copyright detection	detect copyright issues in general
		13	AI copyright policy	policy/regulation/ of AI copyright
36		Artist copyright rights/ethics	focus on the artist, discussion about artist's rights in ai art work	
AI art vision and debate (67)	39	Controversy in VR group	discussion of different user group's attitude toward ai in VRChat	
	10	AI art purpose	discuss the purpose/goal/ aim of ai art	
	28	AI in VR vision	the possibility/expectation/predication of AI in VR in the future	
Irrelevant (1,088)	0	Irrelevant		
	47	Irrelevant but interesting		

**Table 2: Themes, sub-themes, codes with definitions. The developed codebook contains a total of 45 codes (43 primary codes, where 3 codes were merged during the codebook development and two functional codes, where code 0 indicates 'irrelevant' and code 47 indicates 'irrelevant but interesting')**