

The Vibrancy of Social VR Community: A Study on Fantastized Anime Avatars in VRChat

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Abstract

The mythical trend of “Metaverse” quickly faded away after the rise of generative AI. However, there is a lack of critical reflection on why the “Metaverse” failed to meet public expectations and became a technology hype. Based on a two-year ethnography in VRChat, this study provides a sharp cultural critique of Metaverse by focusing on its “vibrancy problem”, that is, the collective activeness and energies of users as prosumers and the fluidity of user-generated contents. This study suggests technocultural vibrancy enabled by a technically open digital ecosystem serves as a key attribute for the sustainable development of an emerging digital platform. The evidence came from my interview study of user-uploaded Japanese anime-style avatars in VRChat. The users’ experiences with fantasized, transcultural, and hyperreal avatars revealed a potentially more culturally diverse alternative future of Metaverse, compared to the mono-platform and U.S.-centric hegemony by Meta and other technology giants.

Keywords

Social virtual reality, metaverse, avatars, anime fandom, user-generated contents, VRChat, Japan, transculturation, gender

1. Introduction

After the rise of Generative AI, Metaverse has become a left-behind mythical technology hype. Originating from the 1992 American Science Fiction *Snow Crash*, Metaverse was firstly hijacked by many powerful technology companies, governments, and institutions to imagine a promising emerging media and next generation of the Internet [1, 2, 3], but also questioned by others as media hype, frauds, or old wine in the new bottle [4]. The innovative aspects of Metaverse were questioned in comparison with the earlier industry practices such as Second Life. The recent poor market performance of several tech giants’ Social VR platforms also hindered the Metaverse trend, particularly reified by the low vibrancy of their user communities, such as lack of active and long-term user engagement, social interactions, and content creations, and limited expansion of global markets [5].

Today, the “Metaverse” trend quickly faded away after the rise of generative artificial intelligence (AI) [6]. However, a remaining question was why the “Metaverse” failed public expectations, and how this disruptive “Metaverse” trend may impact the future development of both social media and VR across the globe. This disruption was associated with a community “vibrancy” problem, reified by a lack of active and long-term user engagement, social interactions, and content creation, and limited expansion of global markets [5].

By contrast, VRChat, an American VR social game developed by a small enterprise, has earned fame in the industry for its vibrant user communities [7, 8, 9, 10]. By 2023, VRChat has already reached about eight million users worldwide [11]. The vibrancy of the platform could be attributed to its technically open environment for user-uploaded content and global accessibility [12]. These two conditions nourished diverse popular cultures and transcultural phenomena based on the convergence of production and consumption, namely “prosumption” [13]. One particular phenomenon that raises author’s attention is the prevalence of Japanese anime avatars among both Eastern and Western users despite the platform’s American origin, which denotes deviance from the mainstream Western discourse of Metaverse imaginary led by the Meta [14].

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I conducted a two-year digital ethnography and in-depth online interviews with multinational users in VRChat to understand why Japanese anime avatars have become popular in VRChat, and how users from diverse cultural backgrounds experience such avatar cultures. Nevertheless, the theoretical significance of these two research questions goes beyond the context of VRChat and Japanese anime avatars: it revealed vibrancy as a key attribute for the sustainable development of emerging media such as Social VR platforms. Based on the empirical evidence from my digital ethnography and interviews, I will present how the perspective of vibrancy helps rethink the myth of Metaverse, and offer insights for emerging media.

2. The Metaverse Hype

The vision of Metaverse has been Western-centric, particularly U.S.-centric, given its origin in Snow Crash, pioneer practices of Second Life, and the latest trend led by Meta [15]. Through its radical re-branding from Facebook, Meta promotes the concept by defining it as a hybrid of “today’s online social experiences, sometimes expanded into three dimensions or projected into the physical world” [14]. By highlighting the immersive experiences and unique non-physical experiences afforded by Metaverse, this Silicon Valley giant promises it to be “the next evolution in a long line of social technologies” [14].

Nevertheless, the idea of Metaverse is always mythical, as it was applied by different players in ambiguous and unclear ways, from social media companies to cryptocurrency companies. Metaverse was gradually questioned as a media hype compared to several existing platforms. Pieters [4] pointed out a public sentiment suffused with “Second Life fatigue”. Whereas, Dwivedi et al [16] suggest that Metaverse is different from Second Life because it offers more natural and immersive experiences through mobile devices instead of PC-based, and it enables a more secure, stable, and efficient digital economic system based on blockchain and cryptocurrency technologies (e.g., Non-Fungible Tokens, or NFT).

However, the vision of Metaverse met more significant obstacles and challenges in the last two years, following the poor market performance of social VR platforms developed by the Silicon Valley giants, such as Meta’s Horizon and Microsoft’s AltspaceVR [5, 17]. One of the largest problems that the Metaverse trend is facing is the lack of “vibrancy”. The vibrancy of user communities on numerous Social VR platforms such as Meta Horizon Worlds was questioned, as even Meta’s own employees rarely use or like Horizon Worlds [5]. Originating from the urban studies [18], the term “vibrancy” was to describe the urban community, reflecting residents’ social interactions and participation in the social activities in the community. This study applies the notion of vibrancy to refer to the collective activeness and energy of users in their social interactions, fluidity of content creations, and long-term engagement within the platform [19].

Girginova [20] criticized the U.S.-centric imaginary of Metaverse under the impact of Meta’s hype, and encouraging scholars to shift their focus from Meta’s narratives to more global and intercultural constructions of Metaverse imaginary. Following Girginova’s call and this clue of vibrancy, this study aims to explore a potential alternative future or imaginary of Metaverse.

Roquet [21] analyzed the differences in Metaverse imaginary between the U.S. and Japan. Represented by the Meta, Metaverse in the U.S. remains a strong continuity between online and offline identities. Meta promotes a real-identity avatar, a cartoon version of one’s real-life appearance. By prioritizing the business meetings and co-working scenarios and connecting with their own existing social media ecosystems based on personal social networks, Meta aims to integrate and resonate one’s online and offline identities in their Metaverse application, which was seen as the “weak” Metaverse approach [21]. By contrast, most Japanese practitioners and VR users intend to embrace a “strong” Metaverse approach, that is, the enclosed alternative world that promises escape and freedom from existing social conditions, which rehashes “the cyberspace utopianism of the late 20th century” [21].

He also paid attention to VRChat as a counter example. As Roquet [21] claims, “At the same time, smaller scale but highly active Japanese communities on social VR platforms like VRChat, often intersecting with the larger subcultures of anime, manga, videogame, and technology enthusiasts (the

so-called 'otaku'), have taken the metaverse concept in more original directions."

The discussion about original directions leads me to revisit the original ideas of what avatars may look like in Metaverse envisioned by Neal Stephenson in the first place: "Your avatar can look any way you want it to, up to the limitations of your equipment. If you're ugly, you can make your avatar beautiful. If you've just gotten out of bed, your avatar can still be wearing beautiful clothes and professionally applied makeup. You can look like a gorilla or a dragon or a giant talking penis in the Metaverse. Spend five minutes walking down the Street and you will see all of these." (From *Snow Crash* by Stephenson, 1992)

Although Second Life and Meta Horizon Worlds allow users to customize their avatars to a certain degree, they were restricted to either templates or the uploading protocols offered by the platform for commercialization. In comparison, the technically open environment of VRChat enables users to upload their own avatars from third-party softwares, so that they can be a Japanese anime girl, a furry (anthropomorphic animal), and even non-creatures such as spaceships or a piece of paintings. Thus, it is closer to the original vision of Metaverse imagined in *Snow Crash*.

However, despite this freedom, the visual culture of avatars and virtual worlds in VRChat have been largely shaped by the Japanese anime culture. In retrospect to the early days of VRChat in 2016, anime avatars were not yet as prevalent on the platform as they are today. Figures 1 and 2 show the official promotional image of VRChat [22] and one YouTube video for the player's screen recording of the playing experience [23]. They indicate that Japanese anime-style avatars were used but still not in a large proportion. By comparison, the recent official promotional videos of VRChat showed their own male staff adopting Japanese anime avatars of young girls (See Figures 3 and 4).

Gao et al [24] developed a research agenda for Metaverse related-studies, which highlight the significance of investigating concrete user engagement and their unique behaviors influenced by the Metaverse applications. Following this call for research agenda, this study is interested in two contextualized research questions: RQ1. How do users from diverse cultural backgrounds perceive and experience the prevalence of Japanese anime avatars in VRChat, a global VR social platform originating in the U.S.? RQ2. How does this avatar culture shape the vibrancy of VRChat?

3. The Cultural Politics of Anime: Affect and Transculturation

This study is not only concerned with a matter of avatar culture and the particular platform vernacular of VRChat, but also an important question of cultural politics. Current investigations in virtual worlds and VR social platforms are mainly based on U.S. or Western cultural contexts, due to the limited accessibility of these platforms and unequal distribution of research resources. Although some studies have already suggested that cartoon-like avatars are more suitable for the recreational use of VR [25], the intercultural differences between cartoons and Japanese anime should not be neglected.

Brett [26] suggested that Japanese anime avatars in VRChat and related platforms denote a White heteronormative design, but his study only focused on Western users and had limited discussion on the cultural dynamics of anime avatars and VRChat as a global platform. Thus, a more culturally diverse (especially Asia-oriented), dynamic, and grounded view needs to be applied to understand the phenomenon [27].

The term anime refers to a form of aesthetically distinguishable animation products from Japan. Such aesthetics can be understood as characters with "large super-reflective eyes" and accentuated physical features to "ramp up the eroticism" [28]. It is visually depicted by artistically styling and exaggerating or minimizing certain parts of the human body, such as giant eyes, a small nose and mouth, and either a mature sexy, or a childlike, slim body shape. Such designs manifest an intricate assemblage of cuteness and sexiness entangled with people's desires for intimacy, emotions, and sex, such as character types of *bishōjo* (beautiful young girls), *loli* (child-like girl) that is entangled with controversy surrounding pedophilia and child pornography [29]. A highly related subcultural group of anime consumers is named *otaku*, which literally means people staying at home, implying their lack of real-life social connections. According to Azuma [30], *otaku* people are animalized consumers who

are seeking the immediate satisfaction of affection, intimacy, love, and sex, with limited inquiries into the deeper underlying meanings from anime.

Despite its Japanese background, anime is never purely Japanese, but always transnational and transcultural. Historically, it was impacted by Disney animations and various foreign cultures [31]. Today, Japanese anime products have high visibility domestically and worldwide, spreading across both neighboring Asian countries with close cultural proximity and also distant countries in the West [32, 33]. Meanwhile, fandom activities and second-hand creations of anime are constantly redeveloped and localized by anime otaku in different and transcultural cultural contexts [34, 35]. Thus, it is vital to understand the ongoing global flows of anime cultures from a perspective of transculturation.

To understand the modern cultural flows, Appadurai [36] proposed five different landscapes: ethnoscapescapes, mediascapes, technoscapes, financescapes, and ideoscapes. As a media product, Japanese anime is largely associated with the mediascape, from the early TV and DVD productions and distribution in the pre-digital era, to the widespread fansubbing contents without copyright and platform-distributed copyright contents in the digital era [37]. Nevertheless, Napier [38] further suggests that Japanese anime cultures opened a new landscape beyond the five landscapes, namely “fantasyscape”, which she defines, “This sixth landscape, which draws elements from each of the other five, has two key aspects, action and setting. The action is play, and the setting is a world constructed for entertainment, a world of simulacra” [38]. Although she did not specify the meaning of simulacra here, this term is strongly associated with Baudrillard’s idea of simulation and simulacra. According to Baudrillard [39], simulacra are copies or simulations that do not or no longer have the original and become their own reality, and hyperreality is the condition where these simulations or simulacra become more real or authentic than the reality they were supposed to represent. For Baudrillard [39], VR is a milestone technology for the proliferation of simulacra and hyperreality, which may lead to the transformation of lifeways itself and terminate the illusion that a real world exists. The theoretical perspectives of both transculturation and fantasyscape can serve as sensitizing devices for us to understand individuals’ cultural practices in the given context of international VR social platforms.

4. Methods

Following Boellstorff’s methodology [40, 41], I conducted digital ethnography and online interviews to investigate the research question. I conducted the participant observation dynamically by not only watching how other people communicate with each other, but also proactively joining them in casual chat. After becoming acquainted with strangers, I sent them friend requests on the social system of VRChat. The “friend status” allowed me to directly visit their virtual locations and further expand my network of friends’ friends and related communities through a snowballing strategy. My initial casual chats with these people often comprised some informal individual or group interviews. After disclosing my position, I started introductory easy-to-answer questions for a “warm-up,” such as, “how long have you used VRChat?”, “what do you usually do in VRChat?”, and “what are your favorite avatars? If it’s possible, can you switch to them to show to me?” The first two questions helped me to quickly judge the depth of people’s knowledge and their experience of VRChat, so that I could adjust my following inquiries accordingly. The third question was interactive, leveraging the advantages of conducting interviews directly within the VR social platform environment, and helping me to assess the “authenticity” of people’s avatars. If their avatars corresponded to certain characteristics (e.g., anime characters, opposite sex, or sexualized), I tailored my further inquiries. If an informant offered some clues that they would potentially have an in-depth conversation or cover some sensitive topics (e.g., sexual issues) that were not suitable to be discussed publicly, I invited them for a private conversation and conducted one-on-one, in-depth follow-up interviews.

The digital ethnography lasted from March 2022 to May 2024. During the digital ethnography, 77 interviews, including both online and offline, individual and group, semi-structured and unstructured, were conducted. The screen recording of interviews was conducted after the reception of informants’ consents, which were only used for the research purpose. The research process was approved and

supervised by the research ethics committee of the local institution. A reward (e-commerce gift card of US\$10 or CN¥50) was offered as a token of appreciation, although two thirds of the informants kindly rejected the rewards. Among the 77 interviews, 25 interviews are directly related to the topic of avatar use and styles. Interviews were conducted directly in VRChat, given the convenience of VRChat's affordance of real-time voice conversation and informative visual cues embedded in the virtual world environments (e.g., worlds, avatars, people's interpersonal interactions).

The average interview duration was 46 minutes. A total of 30 informants were interviewed; seven informants were long-term informants and joined my interviews twice or more times and introduced other potential informants to me. Most of the informants were young adults aged 20 to 35 years old. They came from Cuba, Ecuador, Indonesia, Japan, South Korea, Mainland China, Malaysia, New Zealand, Taiwan, and the United States Mainland and Puerto Rico. Despite the diversity of regions, the fact that more than half of the participants were Mainland Chinese needs to be acknowledged as a research limitation. This was mainly caused by my cultural background and reliance on snowball sampling for recruitment. To protect informants' privacy, pseudonyms are used in the section on the findings.

After the data collection, I conducted thematic analysis that incorporates multiple stages, from open-coding to structural and theoretical coding [42]. It allows me to develop both a grounded view of the research phenomenon and a conceptual view that connects with the theoretical base of research questions and existing literature. As a result of my analysis, three key themes were identified and conceptualized, namely (1) Fantasized Avatars, (2) Transcultural Avatars, and (3) Hyperreal Avatars.

5. Findings and Analysis

5.1. Fantasized Avatars: Celebrating Femininity or Reinforcing Masculinity?

Users from the anime subcultural community play a vital role in consuming, producing, and thus promoting the prevalence of Japanese anime avatars in VRChat. Most of my informants who often used anime avatars claimed to be anime fans. Moreover, the social status disclosed by many informants also reflected the typical characteristics of the otaku community [30]: few real-life social connections and high consumption of anime, games, and technological products. Not only female users, but also a large proportion of male users also use bishōjo avatars [27] – young, cute, and sometimes sexy anime girls. Some of my informants, including both male and female, Eastern and Western users, claimed that they used bishōjo avatars to celebrate femininity. Jose, a young male user from Puerto Rico, also disclosed his aversion to male avatars, but in a way of disdaining masculinity. By denying a heterosexual desire, he attributed his use of bishōjo avatars to his intention to explore his gender identity (see Figure 5):

I think it [bishōjo avatars] helps me show how I feel inside myself. I sometimes feel like a girl inside, but it's not like I think I'm a girl, just "kind of." And I feel uncomfortable using male avatars. I am not like "hey, what's up, girls? Look at my avatar. I'm so e-boy, haha" [he changed to a more masculine tone here]. It's so disgusting.

Alice, Hanna, Luna, Kate, and Susan, who all use bishōjo avatars themselves, believe the aesthetic style of anime girls is attractive to both males and females. Thus, they have an understanding for men's desires to use anime girl avatars, including sexy ones. Alice and Kate, and their male friends Hans and Frank (a young Taiwanese player and a young American avatar creator) believe that most female avatars are much more good-looking than male avatars, because they have more decorations, make-up, details, and natural beauty. Kate strongly supports Frank's creation and use of beautiful female avatars and believes the same desires for beauty apply to males: "I have seen some of my male friends wear make-up. They look gorgeous. And I also believe males should wear make-up. But unfortunately, we have a cultural prejudice against this in real life, at least in the United States. So, they satisfy their wishes in VRChat." Moreover, Frank believes that female avatars are friendlier and less aggressive when meeting new people on this VR social platform (see Figure 6). Situating the cross-dressing VRChat users and VTubers in the Japanese technocultural contexts, Bredikhina and Giard

[27] identified the Babiniku phenomenon, referring to male users who used cute anime girl avatars to challenge the hegemony of masculinity.

On the other hand, a huge number of male users used anime girl avatars not for celebrating femininity, but for fulfilling their heterosexual desires. The most frequent reason for using bishōjo-sized bodies given by my informants was “wanting to be bishōjo in virtual worlds because they could not be so in real life.” Gary commented that such virtual gender switch practices is a new form of narcissism: “I believe the ideal partner for most people is themselves but in the opposite sex.” Anime bishōjo avatars offer them the means to fulfill their desire for the ideal self-pleasing body: young, beautiful, cute, and probably sexy. It is congruent with the research on avatar gender-switching behaviors by Martey et al [43], who revealed how male players used female avatars in *World of Warcraft*. They found male players do not intentionally hide their offline male identities, but they tend to idealize the feminine appearance and communicative styles of their female avatars in the game.

Ace, a 35-year-old man, has a very masculine voice, in strong contrast to his loli avatar. He justified his use of girls by remarking: “My sex is male, and my hobby is female. It is very natural and reasonable.” The avatars used by them were often overly sexualized. I even observed some competitions of “whose avatar is more erotic”. Moreover, their avatar configurations and behaviors remain a strong representation of masculinity, such as by equipping their bishōjo avatars with weapons and guns, and chasing female players who have feminine voices.

Through the anime body, the discourse and normativity of gender performance are reconstructed in VRChat. Tyrion believes that the bishōjo-sized bodies reflect a distinct gender norm in VRChat. For most of my informants, they have shown high acceptance for the occasions that female avatars speak in male voices. Tyrion stated his own opinion, “It is normal for male users to use female anime avatars. It proves you are a heterosexual straight man. If a male user uses a handsome or muscular male avatar, he might be gay or a playboy.” This opinion was commonly confirmed by most of my informants.

In this highly sexualized environment, the presented femininity can also be vulnerable, due to the prevalence of sexual harassment and virtual sex [44]. Female users were more cautious about using sexy bishōjo avatars. Luna only used sexy avatars under secure circumstances with close friends. Susan said she once encountered the body of a sexy avatar painted with erotic words by other people when the user was away from the keyboard for a while: “Imagine that you come back and suddenly see several people doing such disrespectful things to your body. It’s really gross.” Luna also felt using over-sexualized avatars in a public space was inappropriate: “Afterall, there are many teenagers in this game. If people really want to use such avatars, create a private room.” Alice had engaged in erotic roleplaying (ERP), that is, sensitive and underground sexual activities in VRChat that are popular among certain groups of users. People often used overly sexualized avatars to simulate real-life sex in private worlds or rooms. Similar to live porn and Chaturbate [45], this new form of mediated sex challenges the threshold between pornography and prostitution, and create more grey area for sexual harassment.

Overall, based on my informants’ rich illustrations of how they use the anime body to either celebrate femininity or reinforce masculinity. It showcases the process of embodiment of anime fantasyscape in reconfiguring users’ virtual identities for their respective desires. Such a high degree of fluidity constitutes the fundamental vibrancy of the user community in VRChat.

5.2. Transcultural Avatars: Eastern Anime Style or Western Body Ideals?

Despite the prevalence of Japanese anime avatars among both Eastern and Western users, there is a nuance of anime avatars produced by Western users in comparison with those produced by Eastern users. Most of my Asian and American informants agreed with an aesthetic difference, especially the construction of the ideal sexy body shape. Tyrion showed me an avatar he perceived as “Western-style”. Ace, who was nearby, provided a summary: “Big thighs, big butts. That is the main feature of European or American avatars.” Avatars used by Kate and Frank, as shown in Figure 6, also comply with this description. Furthermore, Ace and Tyrion commented that avatars created by Western users using Unity software tend to be of higher quality, with fewer model bugs, richer details, and better

light effects than avatars produced by some Chinese and Korean creators using Maya software.

As an American avatar creator, Frank pointed out a major difference between Eastern and Western anime avatars in circulation channels. Japanese and other Asian users tend to sell or purchase avatars on Booth [46], a Japanese e-commerce platform. By contrast, Western users tend to exchange avatars on an American site named Gumroad [47]. The best-selling avatars on their main page also denote their aesthetic distinctions. They had different emphasis on the shadows of the nose and lipstick makeup. In addition, as Jose mentioned before, many Western anime avatars adopt the e-boy or e-girl subculture, which incorporates several visual symbols of Western gothic fashion (e.g., accessories, tattoos, and studs).

Ace's blunt summary of "big thighs, big butts" served as a clue for me to revisit the literature on body politics. This type of body ideal has been found in ancient paintings, sculptures, and drawings across different regions and civilizations, such as Venus of Willendorf found in Austria, which is one of the oldest sculptures of a female figure, famous for its *steatopygic* (i.e., fat in the gluteal area) style [48]. In modern Western history, slenderness used to be associated with whiteness and superiority [49], while fatness of the color was notoriously symbolized as primitive or savage traits during the colonial era [50]. However, extra fat on the buttocks has recently become a beauty trend among white females, following the influence of the American celebrity culture led by Nicki Minaj, Kim Kardashian, Lola Monroe, and K Michelle [51, 52, 53].

Since this body shape can hardly be built naturally through a diet plan by certain ethnic groups, many individuals fulfill this desire through risky plastic surgery for gluteal fat grafting or implanting, also called the "Brazilian butt lift" [52, 54]. Thus, VRChat somehow offered an alternative approach to achieve such unnaturalistic desire through the transculturation across the Western black females, white females, and Japanese anime characters. In this sense, this global VR social platform is not dominated by Japanese anime avatars, but by different types of anime avatars that are produced and reproduced transculturally.

Moreover, such "re-westernized" anime avatars are also proliferating and widely circulating among Asian users, and vice versa. This is mainly caused by the wild openness and lack of effective regulation on the platform and related softwares, as well as people's sexual desires, which echo our first theme. Jose offered an answer to encapsulate this reasoning: "At the end of the day, Asian people also love those sexy Western avatars, especially VR dancers, who prefer realistic and sexy Western avatars for hip-hop or pole dancing." This opinion was shared by other Chinese users such as Tyrion, Nick, and Luna, who also often used sexy westernized anime avatars. This indicates that people are approaching a deeper layer of transculturation [55]: the increasingly blurred boundaries, the deep hybridity, blending, and bricolage, and the increasingly difficult tracing and identification of the cultural origins of visual symbols and objects. It also further leads the study into the development of the third theme of what I call hyperreal avatars.

5.3. Hyperreal Avatars: Diluted Origins of Cross-Platform Productions

By hyperreal avatars, I wish to borrow Baudrillard's [39] concept of simulacra to highlight how the original was diluted or even dissolved within the production, circulation, and usage process of avatars. It reflects a middle-range status in between simulation of physical reality and simulacra that denies and recreates reality, which eventually lead towards a hyperreality. In the study context, this hyperreality is simultaneously transcultural. Through in-depth interviews with five of my informants (Ace, Cola, Gary, Frank, & Kate) who are avatar creators or creators' close acquaintances, a more complex flow of avatars is revealed: the vibrancy of avatar cultures incorporates both the prosperity and chaos of transcultural circulation and productions. Gary is a typical example of an avatar consumer who subsequently became a producer: "After using so many avatars, you just want to make something special that only you can make." He started to learn all the software himself and joined the community of avatar producers. Five informants shared several names of key technical tools or software related to 3D avatar modeling, including Unity, Maya, Blender, and MikuMikuDance (MMD).

Among these, MMD is a key tool that may, to a certain extent, explain the prevalence of anime

avatars. MMD is freeware that was released by Japanese digital music company Vocaloid in 2008. Vocaloid is famous for introducing the first and very successful virtual idol Hatsune Miku, using the unprecedented participatory mechanism of digital music production, by which ordinary users of Vocaloid software can create songs using Miku's voice. This experience was further facilitated by the launch of MikuMikuDance. By offering open-source and easy-to-use 3D models, backgrounds, lighting effects, and dance movements, MMD allows users to generate 3D animated dance videos of Vocaloid characters such as Miku [56]. This software has spawned a large international anime fandom subcommunity due to its openness and user-friendly design, which also popularized MMD avatar models that gradually formed a distinctive visual culture on the Internet.

Different from photorealistic 3D models, MMD models retain the unnaturalistic anthropomorphic aesthetics of anime characters. In the discourse of digital arts, this technique is called "cel shading" [57, 58]. "Cel" refers to celluloid, a plastic material that was commonly used to produce animation in the pre-digital era [31]. The technique of cel shading has more use of lines and less use of the stereoscopic vision of an avatar, to restore a two-dimensional (2D) artistic style in 3D space. This techno-artistic background may also contribute to the understanding of how anime characters, an artistic form that originated in 2D space, can be visualized and popularized in the 3D space of VRChat. It also constitutes the basis for the simulacra body, the reification of unnaturalistic affect and desires by artistically reshaping the realistic human body, redirecting this simulation based on stylized anthropomorphism towards the domain of simulacra. Eventually, anime-style avatar bodies develop their own authenticity that could not be found in reality, and they are regenerating and progressing themselves through rounds and rounds of transculturation in the space enabled by VR and immersive technologies.

Nevertheless, this transcultural hyperreality is never purely celebratory. It may bring vibrancy, but also chaos to the platform. Back to the case of MMD, a freeware is not equivalent to free copyright. According to Douglas, MMD models should not have been allowed outside the software, but this rule has commonly been violated by geek communities which imported MMD avatars into Unity, Blender, and Maya for further revisions. According to Douglas, Gary, and Kate, the relevant regulations and the norms of avatar creations remained less established, at least among American and Chinese communities. Most avatar productions were not completely original but based on the minor revisions of existing avatars developed by a minority of top avatar modeling artists. These revisions, according to my informants, are often unauthorized. As a result, the originality of avatar productions is diluted after rounds and rounds of unauthorized revisions, or even further dissolved in the circulation process, when users cloned avatars with each other free and wildly.

VRChat offers an avatar cloning function for all users. Even though individual users can turn off cloning permission for certain avatars, this cannot effectively prevent cloning from happening in other areas. Douglas commented that he found that some people used illegal plug-in hacking programs to invalidate the avatar protection mechanism and make cloning possible. To reduce such copyright violations, VRChat has introduced the Easy Anti-Cheat (EAC) software to the platform, but copyright issues and unauthorized circulations of many avatars remain pervasive through other channels due to the openness of the VRChat platform environment.

6. Discussion and Conclusion

This study focuses on two research questions: how do users from diverse cultural backgrounds perceive and experience the prevalence of Japanese anime avatars in VRChat, and how does this avatar culture shape the user vibrancy of this platform. Through my two-year ethnography and interviews and theoretical analysis, I developed and conceptualized three key themes in this phenomenon that are primarily responding to the first research question, namely (1) Fantasized Avatars, (2) Transcultural Avatars, and (3) Hyperreal Avatars. These three themes revealed many tensions and cultural politics in gender norms, cultural appropriation, and cross-platform productions.

Moreover, these themes and findings also provide the clues for the second question, developing a sharp cultural critique of Metaverse by focusing on its "vibrancy problem" rooted in the collective

activeness and energies of users as prosumers and the fluidity of User-Generated Contents (UGC)s. UGCs based on the prosumption ecosystem used to be seen as a key trait of Internet that reflects the values of the decentralization and bottom-up empowerment, which lay the foundation for the rise of today's various social media giants including Meta themselves [1] [59,60]. Ironically, although Meta also allows UGCs in their Metaverse platform Horizon Worlds, they had strict control of cultural productions in social VR (e.g., Meta) by becoming the sole content providers and gatekeepers as users can only buy avatar outfits designed by Meta [5, 15]. By contrast, VRChat, a niche start-up company that focuses on social VR games only, foregrounded the user-generated content and user-based community. As an increasingly invisible and infrastructurized platform [61], the platform supports users to do what they intend to do, instead of providing the results directly to them. Thus, in several of my key informants' minds, VRChat is more like a prototype of Metaverse, not because it is closer to the hegemonic discourse of Meta, but because it is closer to the discourse from science fiction and films, such as Ready Player One. Based on this comparison between Meta and Facebook, I propose a specific form of UGCs, namely User-Uploaded Contents (UUCs), which highlights the act of "uploading" that allows both cross-platform and transcultural flows of creative contents. It empowers users to have high agency in creating digital contents across different platforms and reconstruct them following their most intrinsic desires. It provides the foundation for what I call "technocultural vibrancy", a key attribute for the sustainable and long-term development of emerging media such as Social VR platforms, an exit for them from myth and hype, toward their promise of being "next big thing". Overall, in response to Girginova's call [20], through the user experiences surrounding these user-uploaded avatars, this study revealed a potentially more culturally diverse alternative future of Metaverse, compared to the mono-platform and U.S.-centric hegemony by Meta and other technology giants.

I propose "technocultural vibrancy" to describe the energetic, creative, and diverse articulations of individual users' agency through the domestication of technology. By its prefix "technocultural", I mean the practices encompass both a technological context and a cultural focus rooted in the meaning-making process. Technocultural vibrancy is heading toward a more decentralized, bottom-up knowledge production. Products from big companies can be a parameter or case for comparisons, while successful popular products from small companies can represent the real demand of users. The research significance of a future technology is not warranted by the fame of a developer, company, or government, but by the high energies, creativity, and abundant practices of individual users. These individuals are not necessarily technological or cultural elites such as hackers, programmers, or artists, but can also be ordinary people and grassroot class [62]. I argue that "technocultural vibrancy" can work as a sensitizing concept to navigate cultural studies of emerging media technology.

Practically, the results offer the implications for emerging VR social platforms or Metaverse applications to consider the importance of building a technically open ecosystem to boost UUCs and converge them with popular cultures in a transcultural environment, and meanwhile develop feasible mechanisms and technocultural norms to regulate the possible chaos caused by this openness. Meanwhile, it also posed more challenges for regulations and sustainable development of UUCs in such a vibrant and chaotic environment, which calls for future studies in evaluating the ethical implications of such an ecosystem.

This study has several limitations that call for future research. First, despite being a qualitative study, the distribution of informants' origins was uneven. Future studies should recruit more users from non-Asian countries. Second, this study has limited or absent investigation into certain practices and popular subcultures in VRChat, such as erotic role-playing activities mentioned above, and the furry avatar culture that also represents a considerable community on this platform. Future studies should investigate whether furry avatars are also a form of re-visualization of people's identities and desires to become cute furry animals, and even more patterns may emerge. Third, the ethical and legal dimension of such practices still left huge research space, which calls for interdisciplinary research in collaboration with political economy, legal studies, and deeper feminist perspectives.

Declaration on Generative AI

The authors have not used any Generative AI tools.

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A. Appendix



Figure 1: VRChat official promotion image in 2016 (VRChat 2016).



Figure 2: Screenshot of Kry 10's (2016) YouTube video for early *VRChat* experience.



Figure 3: Screenshot of *VRChat* (2023) official video posted in January 2023 in YouTube.

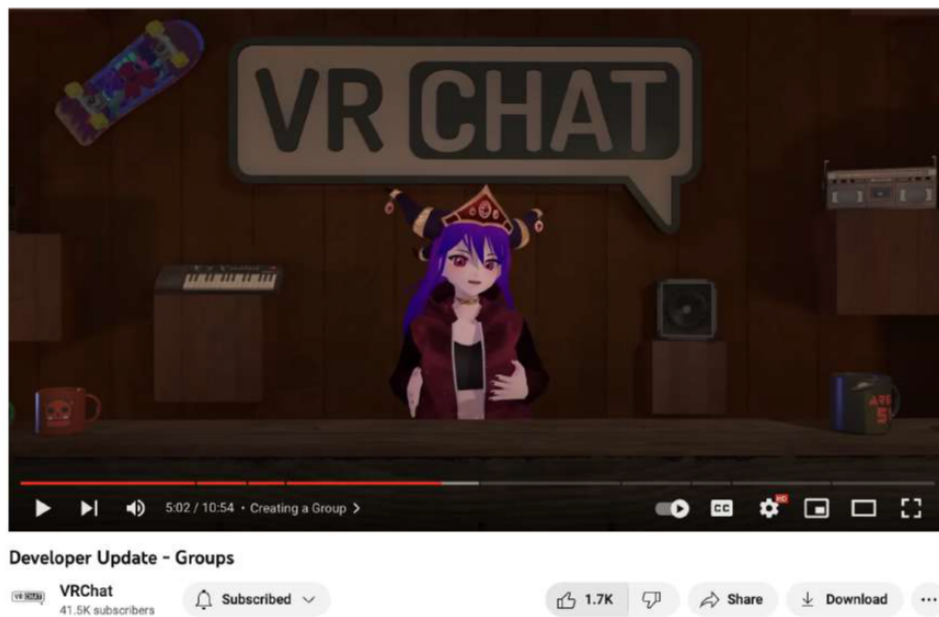


Figure 4: Screenshot of *VRChat* (2022) official video posted in December 2022 in YouTube.



Figure 5: The avatar used by Jose for gender exploration.



Figure 6: The avatars used by Kate and Frank who came from the U.S.