

Tech Otakus Save The World? Gacha, *Genshin Impact*, and Cybernesis

Matthew James Adams
Brunel University

Abstract

With the shift of life online, accelerated by the pandemic, cybernetic conceptions of personhood are becoming increasingly pertinent. The anthropological literature has yet to properly contend with Donna Haraway and Gregory Bateson's challenges that the person might be best understood as a cybernetic organism. Based on eleven months' ethnography during COVID-19, conducted in-person in Hong Kong and Korea, and digitally with communities in Taiwan and farther afield, this paper takes up that challenge in an intimate look at the cybernetic formation of personhood through videogames. I focus on the recent output of miHoYo's Genshin Impact, which has a playerbase in the hundreds of millions. In two contrastive Chinese contexts, Taiwan and Hong Kong, I interrogate the effects of gacha monetisation on personhood. Through the activities in-world, and engagement in internal and adjacent communities, videogame identities become componential to personhood. However, so too do the players become components in the gacha characters, and even in miHoYo, as cybernetic organisms. Given the developers' explicit ambitions – not least of all in their motto, 'tech otakus save the world' – and potential tensions with Mainland regulations, I explore the nascent Chinese metaverse from its present limits. In so doing, I show the significance of this game and its community for the future of all cyber society, and the utility of my conception of 'cybernesis' for understanding that future.

Keywords: cybernesis, personhood, metaverse, dividuality, psychological anthropology, Hong Kong, Taiwan, China, gacha, *Genshin Impact*

Introduction

Genshin Impact (Yuan shen 原神; miHoYo 2020), a fantasy-themed open-world action role-playing game produced by the Chinese games company miHoYo 米哈游, has been a runaway success since its initial release in September 2020. A major cultural export that has made tens of billions of renminbi around the world, it is the flagship product in the developer's bid to become a lead player in the metaverse.¹ Studying *Genshin*, its community, and competitors, offers a unique window onto what the 'metaverse' may mean for digital subjectivity, what new forms of personhood such a world makes possible, and what this may tell us of China's future role therein.

Genshin's success centres on its 'gacha' monetisation system. The unique pattern of valorisations engendered thereby alters the psychodynamic relationship between the subject and non-subject software. Its extreme profitability allows the developers in turn to reinvest in the game, the company, and the technology. Gacha has yet, however, to be comprehensively

¹ The common \$3 billion total revenue figure is only for sales outside the Mainland, and then only to the ca. 118 million users on mobile (Blake, 2022). Counting users and spending on PC, PlayStation, and the Mainland would make for a significantly larger figure.

studied by scholars of anthropology. For my own contribution, I apply a cybernetic logic influenced by Lacan's (1977, 1978) psychoanalysis and develop a term, 'cybernesis', to aid in discussion of the kinds of subjectivity produced by gacha and metaverse sociotechnologies.

Few in anthropology would contest that personhood is processual. Its consideration as a *cybernetic* process is hardly a leap, suggested as early as Bateson (1967) and Mead (1968), and influentially beyond the discipline by Haraway (1990). If we consider 'personhood' a status achieved cybernetically, then personhood is the 'cybernesis' of all components that interact dynamically to produce it. From the Greek *cyberneisis* κυβέρνησις (1 Corinthians 12:28), roughly 'government', the source both of 'cybernetics' and the English verb 'to govern'. I resurrect the root term in a Latinised form to explicitly denote the process by which nominally discrete cybernetic systems are fused. While Facebook and the user inevitably interpolate, 'cybernesis' allows us to talk about, say, the formation of Facebook *as a whole* and the personhood of any individual Facebook user *as a whole*. Each is a subcomponent of the other, yet when speaking of the cybernesis of that user, I can refer to the emergent character of coherence, wholeness, or 'governance' that gives them form under the term 'cybernesis'. This allows for some engagement of cybernetic logic without the need to get waylaid in discussing control systems and quantum information theory.

'Cybernetic' does not necessarily refer to the incorporation of advanced technology, despite common usage, and abuse, of the term 'cyber'. This said, living through COVID-19, one can perhaps most easily conceive of how we become 'cybernetic organisms', that is, composites of human and technology, say, with selves partitioned between Zoom meetings for work, our socials, and our private enjoyment of the internet. It is 'cybernesis', vertically, of various partitioned selves that produces in each of us the nominally 'individual' person. Cybernesis is a doubly useful term due to its flexibility. It can denote the coherence of all individual persons within a network where we wish to consider the *network* as a cybernetic organism. It can also denote the consolidation of all the individual components in a single person. I have here termed the former 'horizontal', the latter – *cross-network* – as 'vertical', to distinguish the two uses.

Gacha characters in games like *Genshin Impact* exist as metapersons (after Sahlins 2017), whose cybernesis would cover their expression, embodiment, and performance across the boundaries of multiple domains. They are partially computed in each disparate performance by an individual. Yet the gacha character *also* forms a subcomponent within the cybernetic construction of countless otherwise distinct persons – as has been discussed without the cybernetics, for instance, in Taylor (2006), Yee (2007), Lindtner & Szablewicz (2011), Lindtner & Dourish (2011), and Pearce (2014). Into each 'individual' some elements of the gacha character are incorporated, to a greater or a lesser extent, in their own cybernesis as a person.

Allow my idiosyncratic reading of Strathern's (1988) dividuality as the *cybernetic* production of persons from exchanges across every network in which they are enmeshed, i.e. properties are given thereby. Then gloss this with Deleuze's (1992) dividual as persons formed, almost fractally, by their participation in numerous human machines: as a customer of Amazon, a worker in a business, a citizen in a polity. These machines are the quintessential cybernetic organisms. For large transnational platforms such as *Genshin Impact*, *Fortnite*, or *World of Warcraft*, communities have a horizontal cybernesis that crosses national boundaries.

Socialisation within these spaces can thus transmit the norms of the developers into foreign markets: Mainland regulations can be exported through platforms such as *Genshin*. miHoYo is thus at the forefront in mediating the influence of Mainland social policy in markets

overseas that consume Chinese cultural goods and metaverse technologies. *Genshin* is particularly massive, so decisions taken about its world matter: they have repercussions for the world beyond the game, and beyond China.

There has been an uptick in regulatory intervention with the goal of ‘purifying cyberspace’ and making China’s new cyber society a *moral* society (Shi, 2015). The effects of these regulations iterate differently in Hong Kong and Taiwan, i.e. partially and indirectly, and those effects attenuate as one moves farther afield, for instance to overseas Chinese or to users of Chinese internet products and services globally. Thus, Hong Kong and Taiwan provide a delimitation that straddles the periphery of the Mainland internet and is thus an excellent purview from which to diagnose a ‘Chinese metaverse’ in the context of global competitors.

miHoYo has made explicit their aim to be a major player in the metaverse, with the goal of building a fantasy world for a billion people by 2030.² On its ‘About’ page, HoYoverse announces its goal of “creating immersive virtual world experiences for players around the world”, listing their current games catalogue – *Genshin Impact*, as well as *Honkai Impact 3rd* (*Beng huai 3 崩坏 3*), *Tears of Themis* (*Weiding shijian bu 未定事件簿*), and *Honkai: Star Rail* (*Beng huai: xing qiong tiedao 崩坏：星穹铁道*) – as evidence of their progress so far (Hoyoverse, 2022). The company’s ambitions are backed by heavy investment in research and development, in AI, avatar technology, and virtual reality. miHoYo are now the largest single videogame studio in the world, with at least 700 developers working on *Genshin* alone and HoYoverse employing thousands more (China Edge, 2022). But *Genshin* already exemplifies a great leap forward in metaverse technology via its pioneering of cross-progression from mobile to other platforms. For such a technologically advanced game, the fact that it functions on mobile and that progress can instantly be picked up on a home system, such as a PlayStation, means it can follow users about their day.

For, in essence, metaverse *is* continuity. In Mark Zuckerberg’s promulgation of Meta’s vision for the metaverse, the flashy ‘new’ technologies were front and centre (Meta, 2021). However, it is the social aspect that concerns me as an anthropologist. What the technology affords us is greater *continuity* between virtual and corporeal realities. We already have *a lot* of continuity. In Mainland China, and now arguably anywhere priced into surveillance capitalism, there is for all but every action an equal and corresponding datum on a server. In this form, the metaverse already exists. It is largely synonymous with ‘the internet’ or ‘cyberspace’, but its deepening through mass surveillance and ever more pervasive systems of social credit, formal or otherwise, is a trend that accelerates as the metaverse becomes better integrated and embodied.

Meta’s vision suggests further fragmentation of the person that would be unacceptable in Mainland China. Meta announced that it will be making its metaverse available without the need to use a Facebook account (Meta, 2021), a move allowing a slight separation between online identities though still within their own walled garden of sorts. There will no doubt be competitors to Facebook’s metaverse, with miHoYo one of them, and this will mean fragmentation of the person across multiple accounts and different tech firm ecosystems. It arguably means *discontinuity* and is thus antithetical to metaverse. For now, one can use a Facebook account to log into HoYoverse, if one resides outside of the Mainland. The other side of the Great Firewall, one’s account is instead linked directly to one’s government ID, and in

² Current playercount was popularly estimated at ca. 250,000,000 in the community. I reached out to miHoYo to confirm numbers but could not secure an interview.

turn one's WePay and so one's finances and one's forms of social credit are both centralised and semi-private.

In terms of the Gibsonian vision of cyberspace as formed of the intersubjective hallucination of billions of legitimate operators (Gibson, 1984), the Chinese state is thus the ultimate underwriter of operator legitimacy. Each 'person' has this backstop that assures their cybernesis, and this provides a fundamental infrastructure of coherent nodes, representing 'individuals' that can then be arranged into networks without losing stability. A Meta-style system, or one based on competition where one can make multiple different accounts and so live multiple lives ostensibly partitioned, allows for contradictory subjectivities and a fragmentation of the person.

Yet formalised social credit systems on the Mainland are not so different from those that emerge in all social media, where 'likes' or 'follows' valorise particular behaviours. These follow a logic of gamification that flourishes within technocracy but is becoming more prevalent everywhere. It has altered how we perceive competition (cf. Kirkpatrick, 2015). As Zhu (2018) has suggested, the self-fashioning we undergo through hexis³ in gameworlds follows the Cartesian lines of the neoliberal economy, and that of gacha games is particularly routinised and work-like. In China, it thus follows the lines of socialism under Xi Jinping, and these are reproduced to some extent wherever the game is exported.

In China the algorithms that drive social media are shackled. On Douyin, for instance, TikTok's progenitor and sister app on the Mainland, legions of state employees nudge suggestion algorithms and content on the platform towards *zheng nengliang* 正能量, '#PositiveEnergy' (Chen, Kaye, & Zeng, 2021). Platforms thus learn to produce content that forges legitimate operators, tethered by their ID to one corporeal human with "an emotionally placid habitus" (Hird 2018: 150). These then internalise, perform, and reproduce the morals of socialism with Chinese characteristics even at a remove from the source: it is a *command* moral economy (see Triggs, 2019, for discussion of the broader ideological function of 'positive energy').

miHoYo's company motto, 'tech otakus⁴ save the world' (*jishu zhai zhengjiu shijie* 技术宅拯救世界), may at first sound like hubris. Of course, the plots of their games tend to revolve around 'saving the world', but the actual practice of playing the game tends to consist of working a little each day, often with others, to accrue resources, while diligently paying into the gacha system and so keeping the gameworld alive. As I will touch on in this paper, there are overlaps between the hexis of *Genshin Impact* and that implicit in President Xi's goals of producing "neo-socialist" citizens.⁵ Yet there are other aspects of the game that, while not openly contradicting this, perhaps cast it in a different light.

One way to 'save the world', or to build one corresponding to Xi's vision of China, is by reforming the humans that inhabit it, altering their perspectives and morality. Yet the largely

³ "...a 'state of character' that is more enduring than a mere disposition" (Aristotle and Foucault, cited in Zhu 2018: 88).

⁴ Otaku (*zhai*) is a term from Japanese meaning approximately 'geek' and often used to refer to devotees of anime culture, i.e. the majority of my respondents.

⁵ 'Neo-socialist'/'neo-socialism' is a term I borrow from my respondents, a contraction of Xi Jinping's 'socialism with Chinese characteristics for the new era' (*xin shidai Zhongguo tese shehui zhuyi*

□ □ □ □ □ □ □ □ □ □). There is overlap between this usage, as I encountered it in English, e.g.

'[President] Xi wants to make us into good neo-socialists', and academic discussion thereof (cf. Brødsgaard 2018).

unshackled algorithms, say, of TikTok – unshackled in that they are left to drive up engagement without direct human intervention to promote specific values – polarise and variegate the social, moral, ritual, and oftentimes libidinal (after Lyotard, 1970) values attached to exchanges. Valorised through open competition, the result is more a free-for-all. There is no coherent ethical structure for persons or metaverse, no *moral core*, no coherent world to save.

I will present my findings on *Genshin Impact* and its community in this context, to answer two key questions: What does gacha mean for cyber sociality? And what might *Genshin* signal for the future of a Chinese metaverse? In five parts, I present first (1) how gacha reshapes persons and their relationship to a gameworld through multiple, simultaneous processes of cybernesis. I will then demonstrate (2) how this process spreads outwards through contiguous social media spaces, and so alters their sociality and work, and (3) how in non-contiguous spaces this process becomes untethered, reproducing cybernesis at a great remove from the source and overlapping with campaigns of #PositiveEnergy. I then (4) show the potentialities for creation of wholly new types of person, partially or indeed predominantly AI, and suggest tensions these may have with any government vision of a ‘metaverse with Chinese characteristics’.

‘Metaverse’ is a term originating in science fiction (Stephenson, 1992), used by Silicon Valley dreamers to project a utopian vision of a world with frictionless interface of humans and technology. It is perhaps contentious that we use this same term in discussing a future that, in China, may differ: are *their* tech otakus trying to save the same world? Thus, in a final part, I will explore (5) how Project HoYoverse may overlap with the Western vision of metaverse and the potential for building a new world together. The article is structured in this order to show spatially how gacha and HoYoverse have effects that are meaningfully transformative beyond the gameworld, in our ‘real’ world.

Methods

I conducted my initial recruitment via Reddit and Discord, on official and unofficial groups and servers for *Genshin Impact*, Taiwan, Hong Kong, and Korea. This produced a core research population of 300, all of whom filled out surveys that collected basic socioeconomic data and preferences related to their use of *Genshin Impact* and similar platforms. Though my focus was on the age-range 18-25, six players, all male, exceeded this age-range, the oldest being 41. I had scheduled interviews with thirty of these, either in-person or online, e.g. via Zoom. I was able to snowball through participant observation with my initial respondents, then their friends, friends of friends, et cetera. In ‘realspace’ this was in Hong Kong, and briefly in Seoul, in cafes, cyber or otherwise. I was invited to join Discord servers ranging in membership from a couple dozen to thousands. Around 1000 hours of ‘virtual’ participant observation was conducted with players *inside* the gameworlds and in livestreams via Discord, TikTok, and Twitch, from January to November 2021. All interviews were conducted in English, using a translator, or using translation software throughout the same period.

At the suggestion of many of my predominantly Taiwanese correspondents, I used TikTok to follow accounts both of my respondents and of those whom they followed within the *Genshin* community globally. Likewise, I followed a large selection of streamers and V-tubers (Virtual YouTubers), and I joined the associated Discord servers for each sub-community. This meant that in addition to my participant observation with respondents directly, online, in-person, and in-game, the largest volume of data I was able to generate came from social media, including miHoYo’s own HoYoLab, Facebook, Twitter, Twitch, and YouTube, which may be linked directly from the game client. This also incorporated non-contiguous

platforms like TikTok,⁶ DeviantArt, and VRChat, alongside private groupchats on Line and Telegram. In fast-paced interactions online, I did not exclude those from farther afield but Taiwanese and Hong Kongers were my focus.

1: How gacha valorisation escapes the gameworld

Gacha is yet to be comprehensively studied by anthropologists. From the Japanese *gachapon*, an onomatopoeic for the sound of chance-based toy machines, gacha creates a money value for in-game items, characters, and mechanics, and so gives them equivalencies in the ‘real-world’. It assures their reality (compare Boellstorff, 2008). Not playing a day means a loss in potential accrual of gacha resources. Through gacha, the gameworld and its contents *become*. Gacha makes the world.

This reorients players towards every aspect of the gameplay. Time could be invested directly in accruing the resources necessary to ‘pull’ for characters, or in the materials necessary to level those characters and their abilities. Most of my respondents paid monthly fees for an allowance of in-world currency, which still required habitual play: from the completion of tasks as simple as logging in each day right up to those requiring hours of work-like ‘play’. There is thus a large amount of power in the hands of developers, who are interposing directly in their consumers’ self-representations and reshaping their daily routines (cf. Britt & Britt 2021).

The identification I found of persons with characters obtained via gacha appeared deepened precisely because obtention was probabilistic – in other words, what you get via gacha is down to a series of calculated probabilities (cf. Koeder & Tanaka, 2018). ‘Pulls’, or *yuanwang* 愿望 (lit. ‘wishes’), as they are called in *Genshin Impact*, had a value of approximately £2, or 16 RMB, if bought directly from the cash-shop, with a 0.6% chance to get a ‘featured’ five-star character. You need to collect a character seven times to unlock their full selection of passive abilities. One is only guaranteed the featured character after 180 pulls, with a 50:50 chance on the 90th pull guaranteed by *Genshin*’s ‘pity system’. It would thus cost thousands to get a fully functional character, plus dozens of hours of levelling. The amount one can do each day is limited by a ‘stamina’ system. After exhausting stamina for the day, one needs to use resources worth chunks of real money to continue playing, at a cost of about £1 per additional 20 minutes of focused levelling.

A fully maximised character and weapon would then cost as much as £5000, ca. 40000 RMB, and require perhaps a full month of playing every day. To get a fully upgraded weapon, with the best weapon for each character locked behind another gacha system, one would have to ‘pull’ up to 450 times. To fully refine a weapon and unlock all its passive abilities one needs to have collected it five times within a specific window of approximately three weeks, an opening which may or may not ever repeat – ergo another possible £1350, plus the time to level that weapon. This will again require perhaps hours of further gameplay gathering resources that when depleted take real-world days to replenish.

Of course, very few players invest anything like this sort of money. Only about 1% of all players with whom I interacted had invested more than £1000 in the game and none had a fully maximised character or weapon. Most focussed instead on earning pulls through completion of tasks in-world. That said, there are those who invest significantly more money,

⁶ Though TikTok is in an ambiguous regulatory situation in Hong Kong, TikTok content was still regularly reproduced and discussed in HK-based groupchats.

and these big spenders increase the game's revenue and so subsidise players who spend little or no money. The game is otherwise completely free-to-play and so democratic in that sense.

The valorisation created by gacha is powerfully habit-forming. Subliminally, it conditions through sound. The accrual of resources and characters is accompanied by distinct audio. Thus, *Genshin Impact* and its competitors develop rhythm and meter that direct the user towards productivity in the same way that gamified social media spaces direct towards increased social credit. Sonic cues are tied not only to economic but also libidinal, moral, and ritual value, which map onto our dopaminergic reward chemistry. Genshin has unique sounds associated with the completion of highly ritualised in-world tasks, such as the accrual of useful resources or currencies. Platforms such as Discord similarly play sounds not just on notifications of responses, or likes, but on 'levelling up' after reaching thresholds of contribution and approval on a server. This is the substance of the game and community's cybernesis.

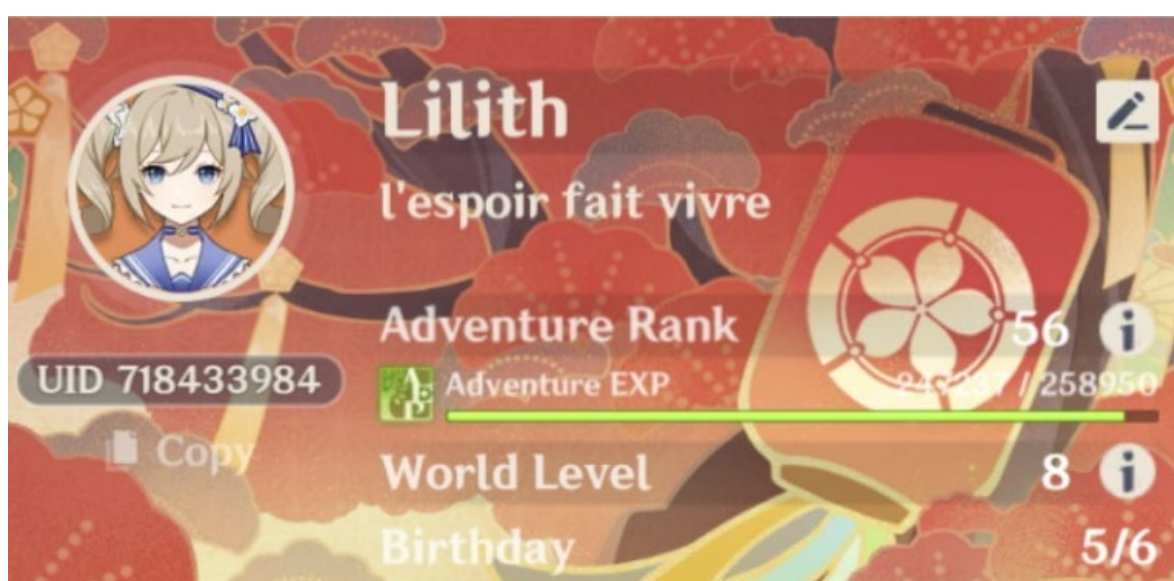


Figure 1: Namecard from Genshin Impact for one of the accounts used in this research, screenshot taken by the author, 21.4.2022.

Cybernesis of individual users is focussed on their 'main'. Often this was the character selected first on the character selection screen, whom they used on their namecard and whom they favoured for exploration. When asked about this, I would receive variations on "because that's my main", or even "that one's me". I received answers suggesting facets of the character they preferred, suggestions of how that character was, or would be, their friend and so forth. I chalked this up in the former case as identification (Li, Liao, & Khoo, 2013), in the latter as symbolic consumption (Nagy, 2010) – particularly in group play. Players suggested elements of a gacha character's 'personality' as a means of explanation for their choice: "because he's suave", "he's loaded", "he has a nice ass".

The avatar is both self and other. A part of that sexualised other is taken into oneself cybernetically, but one's performance thereof and the net effect of thousands, likely millions, of players embodying that avatar every day across the whole of the community leads in turn to a cybernesis of that character as a metaperson. The construction is, therefore, bivalent.



Figure 2: Avatar creation screen from *Dragon Raja*, screenshot taken by the author, 21.4.2022.

Compare this with *Dragon Raja* (Archosaur 2019), wherein players construct their avatar with gacha reserved only for companions and the most highly desirable in-game cosmetics. For respondents who preferred this, the freedom to construct a custom avatar was the main draw (fig. 2), and yet the money and time investment in *Dragon Raja* tended to be vastly less than in *Genshin* – unless accruing gacha resources.

Choice of names, avatar, profile picture, and namecard together constitute one's digital 'face' (fig. 1). One's 'face' within *Genshin* is a choice made only from among the pictures of the different characters one has obtained via gacha. So, in interacting with other players within the gameworld, one always embodies one's chosen avatar. Many then also used images of their character out on Discord and beyond.

2: Transcending through the interstices and into our world

As shown in the previous section, gacha value thus spills beyond the gameworld. Through choice of one's avatar and namecard and transference therewith, gacha characters come to interpose in players' self-representations out in our world. This section will consider the social spaces directly contiguous with the game: miHoYo's own forum-cum-social network, "HoYoLab", official and unofficial forums, e.g. on Discord and Reddit, Facebook groups, and private groupchats. Therein, in abounding self-presentations of 'here is me in front of my home', 'me' is one's favoured gacha character and 'home' that which they built in *Genshin Impact*.

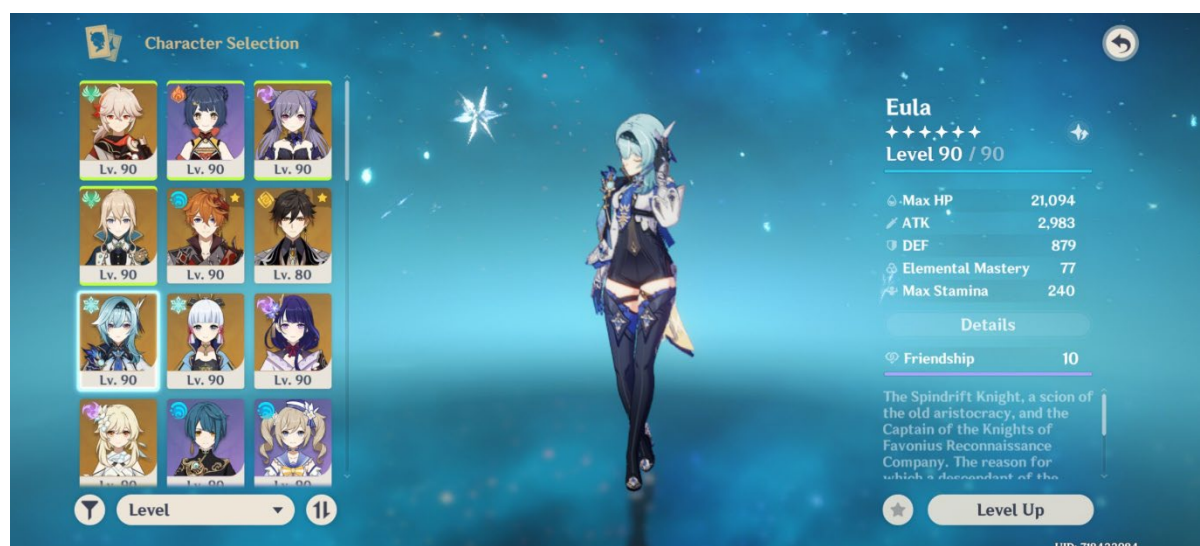


Figure 3. Character selection screen from Genshin Impact, screenshot taken by the author, 21.4.2022.

My research showed that the conflation of self with the avatar, or its absence, varied greatly across those studied. However, it varied equally greatly across my interactions with any one player. Someone who created a high degree of linguistic distance at one moment would, perhaps unconsciously, obliterate that distance the next. For instance, a player in Hong Kong who was explaining to me his choice of avatar, a five-star female named Eula 优菈 (fig. 3), did so by allusion to her large thighs and his appreciation thereof. Yet in the very next sentence he would revert to using ‘I’ in reference to the blue-haired avatar’s progress across the screen: “I’ll just climb up here”. Of course, given the dynamic nature of the player’s input, his locomotion in the gameworld is mapped onto hers. Her virtual body stands in for his. Yet on Discord, he used an image of her as his display picture.

Another player was explaining why she had Amber 安柏, one of the starter characters, and Klee 可莉, a child 5-star with an imaginary friend in the form of a stuffed rabbit, ‘living’ in her virtual house. She explained it to me both in terms of how she, the player, would get along with both and how she, as Amber, would get on with and care for Klee. For, while interacting within the network, while situated within discourse with the gacha characters on their terms, there is an inevitable cybernesis of player and avatar. Relationships were mapped from one to the other. She posted posed pictures of her virtual house and companions in groupchats with other players.

In both cases, the gacha characters were components of the player’s cybernesis. But through interacting with them in other spaces, that facet of their identity fell away, i.e. was no longer primed when discussing other matters or when on forums marked for other sorts of content, et cetera. I lean on Lacan’s allowance for contradictory subjectivities that are differentially primed by changing master signifiers (Neill 2013, Newman 2004). Only, I feel this is precisely explained by cybernesis *of the network*, i.e. that the users conform to certain properties conferred by the network. However, where the users carry the gacha character’s face into other spaces, as their display picture and as their avatar, the cybernesis with that character can carry interstitially.

A key function by which gacha games create a shared hexis is through time-limited content each week. The events vary widely in terms of format, location within the gameworld, and the selection of gacha characters participating. Players may be tasked with cooking foods,

playing music, collecting flowers or materials, combat exercises, and so forth, typically accompanied by a storyline. These player events draw in millions of new, continuing, or returning players, and the rhythm of these was an *a priori* in the lives of all my respondents. It was a given that they would spend upwards of an hour a day doing certain events as these would contain the most easily obtained gacha rewards, as well as new gameplay experiences and story beats. This helps structure the shared experience and so was a foundation of community cybernesis – not simply individual self-fashioning, as, say, in single player RPGs (Zhu, 2015, 2018). All the events are free, and so democratic in that sense too.

The rhythms of these systems were clearly felt in the content shared by players through each contiguous social network.⁷ Simply in their ‘shitposting’, they accommodated up-to-the-minute tweaks in the gacha character’s presentation or role *from the gameworld*. For example, players using the character Tartaglia emulated his supposed penchant for shameless flirting in their presentations on other media. The reactions of the community, diachronically, would then directly inform growth and change in the character through miHoYo’s attention thereto, and thus the cybernesis of the gacha characters interstitially, as metapersons.

‘Special web events’ further blur the boundaries of the gameworld by having the player carry out tasks in social media. These are essentially marketing tasks for the developers, e.g. posting adverts that link to *Genshin* or the developer’s socials in exchange for rewards in-game. This straddles the line between work and play, though it is dressed in animations of key gacha characters and often one’s browser will play the game’s sounds and music. This creates an augmented reality in which the player is assimilated into miHoYo as a cybernetic organism.

Through feedback of community and the ‘product’, the gameworld further becomes a living world. On HoYoLab, the developers actively encourage the production of fan art and fiction. Chosen pieces are then elevated to the level of marketing, officially branded and shared and incorporated into the game’s mythos, and in doing so become valid representations of that metaperson.

The game’s story thus exists not simply within the gameworld, but is co-constructed from transference with the community. Its characters are embodied by players more *outside* of miHoYo’s direct control than within it, not just on social media but in cosplay or as V-tubers (discussed below). For instance, several in-jokes or memes produced in the community translated directly into canonical features of the world during my fieldwork, for example fans wilfully projecting a romantic connection between two female characters, Beidou 北斗 and Ningguang 凝光. This garnered overwhelmingly positive reactions from players, who would frequently talk about different characters in terms that suggested they were peers, friends, or otherwise ‘real’ personages, and events in their ‘fictional’ lives of real consequence. Certainly, the community was participating in the characters’ lives and vice versa.

Respondents thus willingly take on the ‘work’ in these games due to the value placed on progression by the gacha system and their belief in the world and relationships therein. They then take these practices, performances, and incentives into contiguous social media. This may be a harbinger of new economics for the metaverse, which will likely further blur the boundary between work and play – just as our work lives becomes more gamified (Kirkpatrick, 2015).

⁷ Though I tried to keep on top of content in each of the games studied, so I would understand nuances in reference to experience within the world, right down to intuitive humour about everything from object physics to brand-new mechanics, I could maintain a pretty good feel for developments ‘in-world’ simply through presence in the contiguous networks.

Many of my respondents had used Discord for their school, with students distributed into class groups – likewise at university and in some businesses. Thus, just a click away from the gacha game communities, they were in a nominally school- or work-coded space. Yet the systems of gamification were clear in each, with social credit awarded to behaviours across networks. The work put in within *Genshin* would produce results that achieved likes, reactions, and upvotes on contiguous media. Players often ‘levelled up’ even on serious chat servers hosted on Discord where we were only discussing politics or the coronavirus, accompanied by the system’s approving sounds.

Peer-to-peer surveillance on each of these levels is panoptic, with the only real privacy to be found in the interstices. If performances of personhood match up on each level, one’s identity coheres vertically about one’s citizenship. This is increasingly the case in Hong Kong as on the Mainland, and so the emergent metaverse becomes composed of operators nigh on wholly formed by the systems of control in which they are members: Deleuze’s dividuals in a pure sense. Yet where gaps, spaces, duplications, and so forth persist, there remains the possibility of ambivalence, partitioning, and something of a moratorium on identity: true play, however bracketed.

3: Untethering, and reproduction at a remove from the source

The gacha characters live lives beyond even the social networks directly contiguous with the game. On Facebook, through official marketing, through fan art, and through users who wear that digital face, the characters take on a life beyond through a form of autopoiesis.⁸ The gacha character can be reproduced, and iterated upon, outside the gameworld. As already discussed, actions ‘out here’ co-construct the character in-world. But those gacha metapersons in turn may contribute to the cybernesis of individual users as legitimate operators befitting Mainland Chinese campaigns to create whole, neo-socialist netizens. It is thus helpful to consider in this third section the reproduction of personhood that takes in social spaces that are not contiguous with *Genshin Impact*.

To abuse Foucault (1975): the gacha characters spread like disciplines ‘unlocked’. That these will dovetail with the effects of the #PositiveEnergy campaign on the Mainland is all but a given: regulators will ensure that they do, or else *Genshin* will have to change. Whether they do so further afield will help us to predict the role of Chinese developers in the metaverse globally. For now, the only major alteration in the Mainland version of the game is that more modest outfits for some of the female characters were made obligatory in early 2022, while they are optional elsewhere.

We might normally consider the physical body a tether about which persons form. But in cyberspace, the physical tether is not wholly necessary. Tethers to location and intersecting networks, e.g. work or school, are only partial. The most obvious divider of the *Genshin* community is its regional servers: Asia, Europe, North America, and the Macau, Hong Kong, and Taiwan ‘Special Administrative Region (SAR) server’, plus Mainland China’s servers. One cannot access the Mainland version from this side of the Great Firewall, indeed few of my respondents had accessed it even if they lived or worked on the Mainland. Players in Hong Kong and Taiwan were instead split about fifty-fifty between the Asia server and the SAR server.

The divides between servers are hugely important in understanding what role *Genshin* might play in a global metaverse. They instantiate the space and re-tether geographically. Of

⁸ Self-fashioning with an emphasis on reproduction in wholly new realms discontinuous with origin of that form (see also: aesthetic self-transformation, in Zhu 2015: 2).

course, one is free to create accounts on any server outside the Mainland, and many players have multiple accounts, but the possibilities for interaction across the Great Firewall are limited. Yet network cybernesis of the community often transgresses national boundaries, for instance a “bubble tea travel bubble” joked about by some respondents, that would include HK, Taiwan, Singapore, and Japan.

The codebase of *Genshin Impact* still unifies those either side of political boundaries and the Firewall, but the social experience is not frictionless. A minority of players, particularly Western expats, were keen to explain to me that their choice to use the Asia server instead of the SAR server was a decision intended to signal opposition to what they understood to be censorship on the SAR server. One cannot type ‘Hong Kong’ or ‘Taiwan’, for instance, though I found this on other servers too, demonstrating the exporting of Mainland political censorship. When I directly asked those on the SAR server about this, few had noticed. None expressed any consternation at the fact. One respondent explained, shrugging, that “*Genshin* ought to be a space free of politics”, thus tacitly accepting the censorship.

Hong Kongers and Taiwanese players spoke to me from either side of the Great Firewall as though themselves partitioned thereby. They spoke with one voice and access to one set of truths discussing happenings or relations within Tencent-owned infrastructure, and a different voice and set of truths when using Meta-owned infrastructure. One repeated conversation I had was where a participant would tell me confidently that they “did not use” Facebook or Messenger, and yet would clearly use them in my presence, perhaps to log in to *Genshin Impact*. When pressed on this they would qualify, “oh, I mean I am not the *sort* of person [who uses X or Y]”, “I only have it to talk to my grandparents”, or suchlike. Many spoke similarly about WeChat, and when likewise caught out they made similar justifications. Line, Telegram, or Discord were typically the preferred presentation. This demonstrates the fragmentation I would predict in a metaverse without the sort of vertical cybernesis of individual operators a Mainland rendition would require.

The imperfect reference of signifiers to the coherent character, and its imperfect assimilation within an individual’s cybernesis – as discussed in the previous section – can also be explained by a Lacanian view on subjectivity (Neill, 2013). Where Foucault would suggest subjects wholly formed within the sort of discourse here described, Lacan and his interpreters (Butler; Žižek, cited in Newman, 2004) allow for contradictory and competing subjectivities: both for the metaperson, and for their assimilation into the many dividual persons who embody them. The copies are never perfect copies, their coherence is given only by the cybernesis of each instanced network: the person, the groupchat, et cetera. Movement interstitially can be the work of fans consistently reproducing the gacha character in new realms, and if these performances can cohere with neo-socialist values then *Genshin* can nest into Chinese nation-building.

Self-stylings afforded by HoYoverse allay the desire to make choices, but these are largely *false* choices, or at least choices that give a false sense of freedom within the infrastructure of the game. They are akin to the futility of disconnecting one’s Facebook account only to use a Meta account. Freedom to recreate oneself in the metaverse is something Mark Zuckerberg has pressed hard (Meta, 2021). But the Chinese metaverse offers something unique: what Louisa Schein (2002) described as freedoms *from* choice. This is especially pertinent given the otherwise absurd infinity of options available. *Genshin*’s world offers a set of archetypes – the gacha characters – from which one can choose an identity, and in doing so one plays a marginal role in *co*-constructing them as metapersons. The autopoietic effect, however, does not originate from total chaos, and is instead curated.

4: Virtual reality, livestreaming, and idols on the Chinese periphery

As we have already seen from the previous sections, HoYoverse can make possible wholly new types of personhood. Yet despite being developed by a successful Mainland company, this vision of the metaverse may still come into conflict with Mainland regulations, as this section will explore. Livestreamers, for instance, are hugely important in the *Genshin* community. Yet the donation economy on which they run, and the fan culture they tend to engender, is now a target of constricting regulation (Tan, 2022).

A sizeable proportion of *Genshin* streamers are V-tubers, i.e. people who use virtual avatars that are modelled in real time. The extent of functionality to their avatars varies, be they pre-animated to follow simple patterns, with pre-programmed reactions and voice lines that may be triggered manually or contextually, or more sophisticated, using advanced face and motion tracking, real-time expression mapping, and voice modulation technology. This software can be expensive, but its price is collapsing, especially with the low-budget ‘PNG-tuber’, i.e. an avatar with as little as one frame.

The communities that grow around the V-tubers vary from the extremely intimate, i.e. a close group of friends with much back and forth, to enormous followings around a mini-celebrity. Construction of a V-tuber persona and iteration thereupon reflects that of the gacha characters. I have seen many of these communities nucleate during my fieldwork. In the smaller livestreams, groups of V-tubers might stream together, sometimes in VRChat. The game may be instanced there in VR, the viewer thus watching the V-tuber and whoever else is in the virtual room, and interacting with both through the chat on their phone.

V-tubers can be understood quite clearly as cybernetic organisms, human-AI composites, but this does not mean that they cohere totally with the corporeal human to whom they may be tethered. Indeed, in many cases, they could literally be switched off. A user could move to another account, a ‘personal’ account (ie. for their offline person who was distinct from their V-tuber person), and voila, they are someone else. They could switch up identities as fast as one can in a videogame. However, of course, on the Mainland, and in any centralised metaverse, the possibilities for doing this will be reduced in that each account will be tethered to one’s government ID.

The production of new meaning and subjectivity then takes another recursive step where, on the Discord servers that spawned around each streamer, I found some fans would cosplay *as the V-tuber*. They produced fanart and even hentai⁹ thereof, used their name and image in their own self-presentations, and elements of their identity in the creation and performance of their own online personae in turn. Like the gacha characters, they become metapersons and escape through the interstices into our world. As such, it follows that Mainland regulators will want to maintain a power of censorship much as they do over *Genshin Impact*.

V-tubing has exploded alongside *Genshin Impact*, likely accelerated by the pandemic. Many of my respondents started livestreaming to deal with isolation. Intimacy in the livestream could take on many forms. Haptic feedback loops are core to community cybernesis online – we make the phone vibrate in the pockets of our interlocutors, the screen as they tap in their response. This is taken to another level in V-tuber communities. The libidinal element in some exchanges is all but made explicit, where viewers pay to perform certain virtual actions upon a streamer, such as stroking or tickling them. This is awarded with recognition and explicit social credit within the stream, replete with encouraging sounds and written adulation. Viewers

⁹ A Sino-Japanese term for a form of animated pornography in an anime style, originating in Japan.

buy subscriptions, and can make inordinate donations that curry favour both with the idol and their following. For now, these communities are in regulatory limbo on the Mainland (e.g. Tan 2022), creating a contrast with what is currently permissible in HK, on Taiwan, and beyond. Should a middle-ground not be found, then this will be another major fault-line along which the *Genshin* V-tubing community fractures.



Figure 4: A screenshot of *Lumi N0va Desktop* for mobile, miHoYo's V-tuber idol.

miHoYo, meanwhile, is developing their own V-tuber, ‘Lumi’ (fig. 4). Fully AI and currently in beta, she lives ‘behind’ a user’s desktop, a sort of virtual companion somewhere between the likes of Amazon’s Alexa and a gacha character. In a particularly hyper-real move, she also has a social media presence and posts vlogs on YouTube. But should they wish for Lumi to have success on the Mainland, she will have to conform to the norms and expectations thereof. In her current, fully-scripted iteration, Lumi is likely preferable for authorities to V-tubers that are tethered to the corporeal human form, as the latter are less easily programmed to stick to party lines.

miHoYo’s R&D are also working on AI-assisted anime avatars so advanced that the physically and intellectually disabled could use them to effectively communicate and interact in HoYoverse seamlessly. They would not be distinguishable from able-bodied users. At this point, where ever greater amounts of code are introduced into the cybernisis of the person, albeit code trained by inputs from a human specifically to learn their subjectivity, we may see copies that function wholly legitimately in spaces within the metaverse without any directly human components. The performances that are normalised in this space may be thus doubly significant in shaping the moral character of Chinese metaverse. Yet some of this research is world-leading, and respondents joked that these ‘ghosts’ (compare Derrida 1994) could then be programmed to directly befriend and influence players, and train them to be good socialists.

Consider the many content creators on TikTok, say, who are not even players of *Genshin*. Gacha valorisation creates new forms of personhood that then operate and replicate far from the source. In the VRChat space, I spoke with many who were using avatars directly recreating their favoured gacha characters. Someone could join the chat embodying, say, blue-haired Eula, and one of the interlocutors would ask where they got the virtual body, later seeking it out and downloading it such that they too could embody this character (incidentally, in this example too, because she was “sexy”, and “has nice thighs”). They never needed to have played *Genshin* themselves and yet experienced cybernisis therewith. Whether this becomes a target for regulatory constriction or is seen as a useful tool for promoting appropriate values remains to be seen.

5: The world as viewed from *Genshin Impact*

Most players of *Genshin Impact* have been unable to attend international festivals this past year, thus TikTok and livestreaming have provided the most intimate view of the metapersons embodied, say, by cosplayers. It is through images and videos, abetted by the vastly more bountiful producers of short ‘edits’ from in-game and marketing material, that the reality of the gameworld intensifies beyond the virtual more so than ever before.¹⁰ As this final section will describe, it is this continuity of experience that aligns HoYoverse with Western visions of what the metaverse could become.

Of course, this user-created content is also free publicity for the game, a form of labour that users gladly undertake and which can often be monetised. There is ostensibly an infinite amount of *Genshin* content, from the tens of thousands of Twitch streamers to the countless channels on TikTok. One can thus become fully immersed in a purview on the internet in which that world, and its manifestations in this one, are the totality of existence. For me, as was the case for many of my respondents who used such applications, *Genshin* appeared to be realer than quotidian reality. Respondents of all ages told me they had deleted their news applications, Facebook feeds were only memes and curios, many of them also from the game. *Genshin*

¹⁰ *Genshin* was a world-leading trend on networks such as Twitter and TikTok in this period.

TikTok was their window onto the zeitgeist, full of beauty, sincerity, and cuteness, with a moderate libidinal content.

Add to this how gacha affected valorisation of the characters whose images, or reflections thereof, composed so much of this enviroing media, the consistent voice and feel of the social networks, and the streamer communities contiguous therewith. For many of my respondents – indeed, in some ways I along with them – were living *more* in the HoYoverse than in corporeal reality. Genshin was able to permeate one’s entire social life, to fill every idle moment, and to do so with an aesthetic clarity of purpose, and a world worth saving. For we lived in a world more complete, with knowable rules and beatable evils: a world ‘perfect’ in the literal, unconnotted sense of the word. We lived a Lacanian fantasy of wholeness.

This sense of being wholly subsumed within the world of *Genshin Impact* has led to some extreme cases of fan behaviour. The attempted assassination of miHoYo’s founders by a *Honkai Impact 3rd* (miHoYo, 2016) fan, after a small change was made to his favourite character outfits, is heuristic for understanding the profound psychological effects gacha valorisation can have (Yang Zeyi, 2021). The reality and significance of the metaverse for those living in it ought not to be understated.

Genshin Impact’s 2021 concert “Melodies of an Endless Journey”, for instance, was ostensibly a metaverse event (Genshin Impact, 2021). Available through YouTube this side of the Firewall, it was presented as a simultaneous performance by European orchestras and Chinese rock-bands of each gacha character’s theme, while both the virtual avatar and a human performer embodied the character on screen, all but at the superposition of one another.

The most shared images and references to the concert were from its marketing material, which depicted *the gacha characters* as the musicians. They, through the players themselves, were co-creating the world, music and all. In an accompanying event in-game, players performed the songs by pressing rhythmic button prompts while controlling their avatar. The implied simultaneity of the performance was directly productive of cybernesis.

Some particularly committed players have created servers where entire cities from *Genshin Impact* are recreated in VR. Already, bringing one’s custom avatar into VRChat is very simple, and any infrastructure created, say, by miHoYo, to better facilitate this will accelerate the cybernesis of player and gacha character.

Genshin is pioneering portable access to the metaverse. The physical space occupied by players varies between those comfortable on mobile, online during commutes or breaks at work, on the couch, in bed, and those preferring a more involved experience, typically on PC but also on a television hooked up to a PlayStation. But I found that though many respondents first told me they used one or the other, most actually used both. It is one of miHoYo’s great technical feats that cross-progression allows play on immersive home systems, turning off and heading out, and picking it back up right where you were the moment you sit down on the train.

Genshin is thus able to exist with continuity across spaces in ways few games have before. I was often able to interview, say, at a coffeeshop where my respondents could be idly continuing with gacha-related resource collection tasks, which require minimal attention, while we spoke. This continuity between quotidian and virtual realities is the foundation of the metaverse, well-aligned with Meta’s vision of reduced barriers between worlds.

Conclusions: Towards a ‘metaverse with Chinese characteristics’?

I mused with my respondents as to what HoYoverse’s slogan ‘tech otakus save the world’ might mean. The implication that the world can be saved by otaku culture, by anime and waifus,¹¹ is hard-wired into Project HoYoverse. But whether this refers to the *isekai* (Japanese ‘alternate world’, or in Chinese, *yishijie* 异世界) notion of being whisked away to a fantasy world in order to save it, and so live out a power fantasy, or to bona fide ambitions for this world is debatable.

miHoYo’s ambitions are unequivocally to become a major player in the metaverse. Their 2022 rebranding of their flagship products under the banner ‘HoYoverse’ attests to just this. The sort of world that HoYoverse will help produce, though there are multiple possible temporalities contained therein, will all but certainly cohere into one that adheres to Communist Party policy. Several respondents suggested that perhaps that is precisely what the motto meant, that their lives as anime waifus and husbandos were creating a softer facet to a world under greater influence from China culturally and through the metaverse. Where a HoYoverse remains consistently transnational, its cybernesis could yet provide an undergirding to the global metaverse that promotes peaceful intercultural exchange.

Current Communist Party initiatives from the Belt and Road Initiative and New Development Bank to #PositiveEnergy are intended to reform the world about a moral core, not just an economic one (Thompson, 2020). ‘Purifying cyberspace’ (cf. China Daily 2015, Yang Zekun, 2021) may yet mean significant changes to metaverse platforms developed by miHoYo and goliaths like Tencent. Should HoYoverse stay on the right side of regulations, it can contribute to the broadband and algorithmic replication of contemporary Chinese norms and values far from Mainland China.

In this article I have shown the salient effects of *Genshin*’s gacha system in the creation of persons. I demonstrated how these effects morph and replicate far beyond the game and suggested that they interface with perpendicular processes of cybernesis, of the individual and of the networks in which they are enmeshed. I have contextualised this alongside policies of #PositiveEnergy and interventionist regulation set out on the Mainland. While HoYoverse appears to be a metaverse project in many ways aligned with Western visions of the metaverse as expressed by Facebook parent company Meta and others, I believe that the work-like hexis it produces, and miHoYo’s vision of moral rectitude with Chinese characteristics, could just as easily be integrated with pushes in Xi’s China towards what my respondents called “neo-socialism”, shorthand for Xi Jinping’s term “socialism with Chinese characteristics in the new era”. If this is the case, and HoYoverse products continue to be offered globally, then either the Chinese and international versions will diverge, or *Genshin Impact* and its successors will offer those outside China access to an alternative vision of the metaverse.

In the latter case, miHoYo has the opportunity to become a unifying influence that can help better integrate web 3.0 across the Great Firewall. What is certain is that the ramifications of the metaverse for personhood and for sociality cannot be fully understood without looking at the Chinese context, and more research is needed. For now, through its present successes both economic and cultural, miHoYo’s legacy may better be considered an example of tech otakus attempting to save the *metaverse*, with Chinese characteristics or without. But with the 2020s already proving a time of deepening polarisation and fragmentation, and ongoing descent into real-world conflict, the role of multi-billion dollar,

¹¹ A *wasei-eigo*, i.e. Japanese term of English origin, from ‘wife’, for anime girls, equivalent to ‘husbandos’ (cf. Britt & Britt, 2021).

potentially multi-billion user megaplatforms such as HoYoverse could still well be to help save our world.

Acknowledgements

I wish to thank the anthropology department at Chinese University of Hong Kong for the incredible level of support they offered to me in facilitating my research during the pandemic. I would also like to thank my supervisor at Brunel, Andrew Beatty, for his tireless support of me and my research, Isak Niehaus, Eric Hirsch, and Feng Zhu for their advice, and the anonymous reviewers and editorial team for their comments and counsel.

Ludography

Dragon Raja. (2019), Android [Game], Archosaur: Beijing.

Genshin Impact. (2019), Android and Windows [Game], miHoYo: Shanghai.

Honkai Impact 3rd. (2016), Android [Game], miHoYo: Shanghai.

References

Bardzell, Jeffrey, and Shaowen Bardzell (2008). 'Intimate Interactions: Online representation and software of the self.' *Interactions*, 15:5, 11-15.

Bateson, Gregory (1967), 'Cybernetic Explanation', *The American Behavioural Scientist*, 10(8):29-32.

Baudrillard, Jean (1984 [1994]), *Simulacra and Simulation*, Ann Arbor: University of Michigan Press.

Blake, Sophie (2022), "Genshin Impact Revenue and Usage Statistics", *Mobile Marketing Reads Website*, available at: <https://mobilemarketingreads.com/genshin-impact-revenue-and-usage-statistics-2020/> (accessed 18.07.2022).

Boellstorff, Tom (2008), *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*, Princeton: Princeton University Press.

Britt, Brian and Rebecca Britt (2021), "From Waifus to Whales: the Evolution of Discourse in a Mobile Game-Based Competitive Community Practice", *Mobile Media & Communications* 9(1): 3-29.

Brødsgaard, Kjeld Erik (2018), "China's Political Order under Xi Jinping: Concepts and Perspectives", *China: An International Journal* 16: 1-17.

Chen Xu, Kaye, D. Bondy Valdovinos, and Jing Zeng (2021), "#PostiveEnergy Douyin: Constructing Playful Patriotism in a Chinese Short-Video Application", *Chinese Journal of Communication* 14: 97-117.

China Daily (2015). "Xi urges strengthening of united front." China Daily Website, available at: http://covid-19.chinadaily.com.cn/china/2015-05/21/content_20785494.htm (accessed 18.07.2022).

China Edge (2022), "miHoYo (米哈游) Company Profile on ChinaEDGE", *SupChina*, available at: <https://supchina.com/company-profiles/mihoyo/> (accessed 25.07.2022).

Deleuze, Gilles (1992), "Postscript on the Societies of Control", *October* 59: 3-7.

Derrida, Jacques (1994), *Specters of Marx: The State of the Debt, the Work of Mourning, and the New International*, New York: Routledge.

Foucault, Michel (1975 [1995]), "Panopticism", 195-228 in Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan, London: Vintage.

Genshin Impact (2021), "Genshin Concert 2021", *YouTube*, available at: <https://www.youtube.com/watch?v=UIam8zl4af8> (accessed 18.07.2022).

Gibson, William (1984 [2000]), *Neuromancer*, Ace: Amazon Kindle Edition.

Haraway, Donna (1990), *Simians, Cyborgs, and Women: The Reinvention of Nature*, London: Routledge.

HoYoverse (2022), "Our Mission: Tech Otakus Save the World", available at: <https://www.hoyoverse.com/en-us/about-us> (accessed 22.07.2022).

Hird, Derek (2018), "Smile Yourself Happy: Zheng Nengliang and the Discursive Construction of Happy Subjects", 106-128, in Gerda Wielander and Derek Hird (eds.), *Chinese Discourses on Happiness*, Hong Kong: Hong Kong University Press.

Kirkpatrick, Graeme (2015), "Ludefaction: Fracking of the Radical Imaginary", *Games and Culture* 10(6):507-524.

Koeder, Marco and Ema Tanaka (2018), "Exploring the Game-of-Chance Elements in Japanese F2P Mobile Games: Qualitative Analysis of Paying and Non-Paying Player's Emotions", *DHU Journal* 5:16-28.

Lacan, Jacques (1977), *Ecrits: A Selection*, New York: Norton.

Lacan, Jacques (1978 [1990]), "Psychoanalysis and Cybernetics, or On the Nature of Language", 294-308 in Jacques-Alain Miller (ed.) *The Seminar of Jacques Lacan Book II: The Ego in Freud's Theory and in the Technique of Psychoanalysis 1954-1955*, New York: Norton.

Li, Dong Dong, Liao, Albert Kien, and Angeline Khoo (2013), "Player-Avatar Identification in video gaming: Concept and measurement", *Computers in Human Behaviour* 29(1): 257-263.

- Lindtner, S., and M. Szablewicz (2011). “China’s Many Internets: Participation and Digital Game Play across a Changing Technology Landscape”, 89-105, in Herold, David Kurt, and Peter Marolt (eds.), *Online Society in China*, Routledge: London, UK.
- Lindtner, S., and P. Dourish (2011). ‘The Promise of Play: A New Approach to Productive Play’, *Games and Culture*, 6(5): 453-478.
- Lyotard, Jean-François (1970), *Libidinal Economy*, London: Athlone Press.
- Mead, Margaret (1968), “Cybernetics of Cybernetics,”, 1-11, in Foerster, Heinz, White, John D., Peterson, Larry J., and John K. Russell (eds.) *Purposive Systems*, New York: Spartan Books.
- Meta (2021), “Keynote”, *FacebookConnect*, available at: <https://www.facebookconnect.com/en-gb/session/70f2a060-08ef-4aba-a500-3c0495e5519a/> (accessed 18.07.2022).
- Nagy, Péter (2010), “Second Life, Second Choice? The Effects of Identity on Consumer Behaviour: A Conceptual Framework”, paper presented at the 2010 FIKUSZ Symposium for Young Researchers, Budapest, Hungary, September 22, 167-180, in *Proceedings of the 2010 FIKUSZ Symposium for Young Researchers*, available at: <https://kgk.uni-obuda.hu/sites/default/files/pnagy.pdf> (accessed 18.07.2022).
- Neill, Calum (2013), “Breaking the Text: An Introduction to Lacanian Discourse Analysis”, *Theory & Psychology* 23(3): 334-350.
- Newman, Saul (2004), “New Reflections on the Theory of Power: A Lacanian Perspective”, *Contemporary Political Theory* 3: 148-167.
- Pearce, Celia (2014). ‘Identity-as-Place: Trans-Ludic Identities in Mediated Play Communities— The Case of the Uru Diaspora’, *CiteSeerX Open Access*, available at <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.401.566> (accessed 18.07.2022).
- Sahlins, Marshall (2017), “The Original Political Society”, *HAU: Journal of Ethnographic Theory* 7(2): 91-128.
- Schein, Louisa (2000), *Minority Rules: The Miao and the Feminine in China’s Cultural Politics*, Durham: Duke University Press.
- Shi Ting (2015), “China’s Xi Targets Tech Elites for Communist Party Outreach Push”, *Bloomberg*, May 21, available at: <https://www.bloomberg.com/news/articles/2015-05-21/china-s-xi-targets-tech-elites-for-communist-party-outreach-push#xj4y7vzkg> (accessed 18.07.2022).
- Stephenson, Neal (2003 [1992]), *Snow Crash*, Penguin: Amazon Kindle Edition.
- Strathern, Marilyn (1990 [1988]), *The Gender of the Gift: Problems with Women and Problems with Society in Melanesia*, Oakland: University of California Press.

- Tan, Weizhen (2022), “China to ban minors from tipping livestreamers, watching after 10 p.m.”, *CNBC China Economy*, May 7, available at: <https://www.cnbc.com/2022/05/07/china-to-ban-minors-from-tipping-livestreamers-watching-after-10-pm.html> (accessed 18.7.2022).
- Taylor, T.L. (2006), *Play Between Worlds*, Cambridge: MIT Press.
- Thompson, Mike (2020), “The Belt and Road Initiative: Opportunities and Challenges”, *The Journal of the Macau Ricci Institute* 4: 15-28.
- Triggs, Francesca (2019), “The Ideological Function of “Positive Energy” Discourse: A People’s Daily Analysis”, *British Journal of Chinese Studies* 9(2): 83-112.
- Yang Zekun (2021), “President: Internet civilization major component of civility”, *China Daily*, November 20, available at: <https://global.chinadaily.com.cn/a/202111/20/WS61983853a310cdd39bc76724.html> (18.07.2022).
- Yang Zeyi (2021), “Gamer angry about Playboy Bunny-clad character tries to kill Shanghai execs”, *Protocol*, April 27, available at: <https://www.protocol.com/china/china-video-game-murder-attempt> (accessed 18.07.2022).
- Yee, Nick (2007), ‘Motivations for Play in Online Games’, *CyberPsychology & Behavior* 9(6): 772-775.
- Zhu, Feng (2015), “Between Autopoiesis and Neoliberal Self-Fashioning: the Dialectics of Self-Construction in Single-Player Role-Playing Games”, paper presented at the 9th International Conference on the Philosophy of Computer Games, Berlin, Germany, October 14-17, *The Philosophy of Computer Games Conference Berlin 2015*, available at: <https://gamephilosophy.org/wp-content/uploads/confmanuscripts/pcg2015/Feng-Zhu-2015-Between-autopoiesis-and-neoliberal-self-fashioning-the-dialectics-of-self-construction-in-single-player-RPG-games.pdf> (accessed 18.07.2022).
- (2018), “Computer Gameplay and the Aesthetic Practices of the Self: Game Studies and the Late Work of Michel Foucault”, *Transactions of the Digital Games Research Association* 3(3): 75-104.