

Empathy for the Game Master: How Virtual Reality Creates Empathy for Those Seen as Creating VR

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Abstract

This article rethinks the notion of virtual reality as an ‘empathy machine’ by examining how VR directs emotional identification not toward the subjects of particular VR titles, but towards VR developers themselves. Tracing how both positive and negative empathy circulates around characters in one of the most influential VR fictions of the 2010s, the light novel series-turned-anime series *Sword Art Online* (2009-), as well as the real-life figure of Palmer Luckey, creator of the Oculus Rift headset that launched the most recent VR revival, I show how empathetic identification ultimately tends to target the VR ‘game master’, the head architect of the VR world. These figures often already inhabit a socially privileged position. A better understanding of how VR channels empathy towards VR creators points to the need to ensure a broader range of people have opportunities to take up the role of VR game master for themselves.

Keywords

virtual reality, empathy, *Sword Art Online*, Palmer Luckey, *Ready Player One*

Does virtual reality have a special ability to generate empathy? In other words, does being immersed in someone else's perspective through VR make it easier to understand and share their emotions? This became a central point of contention in the early years of the most recent VR boom after Chris Milk declared VR an 'empathy machine' in his widely viewed 2015 TED talk (see the Introduction to this themed issue of *Journal of Visual Culture*). The concept was widely influential and functioned as a lucrative marketing pitch for a time, but was also widely critiqued (Bloom 2017; Sutherland 2017). For example, game designer Robert Yang (2017) described Milk's VR documentary *Clouds Over Sidra* (2015) as a 'refugee tourism simulator' and argued its 360-degree tour of a Syrian refugee camp was ultimately less about empathy than appropriation.

[66] And yet all the buzz generated by virtual reality's recent revival clearly did siphon empathy towards one group in particular: virtual reality developers. This article argues that if we are to accept VR as an empathy machine, it should be understood as channeling emotional energy not towards the subjects of individual VR projects, but rather disturbingly towards those working to promote and establish the technology itself. These are often but not always teams led by white (or in Japan, Japanese) men, reflecting larger structural inequalities in society generally and in emerging (and still expensive) technology industries in particular. The affective energies driving VR in the mid-2010s ultimately depended less on what transpired inside the head-mounted display, and more on the larger channels pushing emotional and financial investment towards these few controlling figures. These trajectories were modelled in speculative near-future science fiction scenarios, and echoed through online journalism and social media. To begin mapping out

these channels I focus primarily on Akihiko Kayaba, villainous game master in *Sword Art Online* (a key fictional VR narrative that fed directly into the recent VR boom), and Palmer Luckey, Oculus Rift inventor, *Sword Art Online* fan, and prime target for speculation and emotion surrounding the recent VR revival. Transforming the ‘empathy machine’ concept to consider these examples of *negative* empathy, I argue that criticism of these figures is not enough, as it continues to center them within the broader VR imagination. To expand the narrative beyond a small group of male figures, it will be necessary not just to change the stories told about them, but also to ensure a broader range of people can inhabit and transform the game master role.

Empathy for the Default

As Michael LaRocco discusses elsewhere in this issue, promotional discourse surrounding virtual reality remains deeply embedded in millenarian promises of a future utopia that never quite arrives. One of the most prominent VR industry news sites in English is called *Road to VR*, while each episode of Kent Bye’s popular *Voices of VR* podcast ends by questioning the technology’s ‘ultimate potential’. Those adopting the title of ‘VR evangelist’ are even more explicit about their quasi-religious role in generating emotional investment in VR’s future well-being. But VR also triggers strong reactions at the opposite end of the emotional spectrum: revulsion over the idea of substituting a digital reality for the existing physical one; anxiety over its potential for surveillance and more subtly invasive forms of advertising; and schadenfreude from those eager for evidence the VR market will soon crash and burn like last time around.

VR's ability to elicit strong emotion in both directions should be understood as two sides of the same empathetic coin. What Stefano Ercolino (2018: 252) describes as *negative empathy*, or 'cathartic identification with negative characters,' can be recognized as both the inverse and the ever-present [67] companion to the positive empathy spun out by VR proponents. In the online and attention-driven structure of contemporary discourse, little practical difference exists between positive and negative responses; what matters is how intensely and consistently audiences engage. Whether positively or negatively coded, empathy serves as a powerful form of emotional attention, keeping users glued to the screen by investing their emotions in someone else's well-being. As VR's recent rapid reemergence attests, in the online attention economy this invested emotion can be traded in for clicks, press coverage, even venture capital.

The tropes of popular technology journalism ensure a revolving cast of protagonists and antagonists, each operating as lightning rods for the hopes and fears surrounding new technologies. In each case, empathy tends to circle around some bodies more than others. For the empathy machine to work most effectively, it helps to put a single face to the operation – so far usually and not unsurprisingly the face of a white man – who in turn becomes the target and beneficiary of the attention.¹ Again, the machine functions regardless of whether the emotional charge generated is positive or negative. While the critiques mentioned above are certainly not sympathetic to Milk's proposal, they nonetheless continue to draw attention to his work and to VR itself (much more so than to the Syrian refugees that are the ostensible subject of *Clouds Over Sidra*).

To give another example, consider the strongly negative response Facebook CEO Mark Zuckerberg received in October 2017 after appearing in a tone-deaf publicity stunt promoting the Facebook Spaces VR platform with a live broadcast from Hurricane-stricken Puerto Rico (well before all the more recent Facebook scandals) (Barron 2017). This instance of ‘disaster tourism’ could hardly be called good publicity, yet the outrage and scorn that greeted the campaign was still a much stronger emotional response than any the campaign could muster for its ostensible target – the people of Puerto Rico affected by the disaster – who were largely sidelined in the ensuing debate.

Empathy is also unevenly distributed when it comes to VR itself. As Grant Bollmer (2017) discusses in his analysis of VR empathy discourse, Milk’s notion of a VR empathy machine relies on the false and universalizing notion that experience can be directly transferrable from one subject to another via the perceptual immediacy of the interface. In practice, this means modes of experience *not* capable of mediation by the headset are effectively erased from the scene. Adopting the perspective of a would-be user of Milk’s VR machine, Bollmer notes sarcastically how within this operating logic ‘*your* experience cannot be acknowledged as a basis for any political or ethical claim until it can be expressed in a form that *I* can *directly* experience, without clear mediation.’ This results in a dynamic where ‘that which cannot be expressed in seemingly ‘universal’ terms, able to be [68] experienced by anyone equivalently, does not enter into public discourse as that which can be acknowledged’ (2017: 64, emphasis in original). Milk’s premise of technologically-enabled direct experiential transfer elides what cannot be contained within a one-size-fits-all VR experience.

Echoing Susan Sontag's approach to photography (2003), Bollmer advocates backing off from any claims VR might serve as a tool for empathy, focusing instead on a representational ethics that asserts the ultimate unknowability and essential mystery of someone else's experience. But this approach moves too fast in denying VR the ability to influence a person's emotions beyond a more classically aesthetic confrontation with the unknowable. Bollmer's own formulation belies this, noting the empathy machine starts to break down only when experiences 'cannot be expressed in seemingly "universal" terms.' Rephrased positively, this means the VR empathy machine *does* work when the emotions it seeks to reproduce are already widely shared. In other words, VR doesn't reflect a universal subject position so much as attempt to generate a media interface where one could *believe* such a perspective exists, even as in practice this perspective remains limited to the situated (and often privileged) perspectives of its creators and users.

As Bollmer (64) notes, VR leans heavily on a user's own habitual understanding of what they perceive, even as users are often prompted to believe they have been 'standing in someone else's shoes.' For those already inhabiting at least part of the 'universal' subject position, the VR empathy machine can provide the comforting illusion that the user's existing emotional perspective is, after all, universally shared. Not only can VR elide what Bollmer (72) calls an 'irreducible otherness,' it can also flatter the user into thinking *hey, it turns out their experience is a lot like my own*. This familiarity will occur more easily to the degree a user fits into the hegemonic subject position modelled by the system (most often white, male, heterosexual, cisgendered, able-bodied, neuro-typical, with head, hands, and body of average physical dimensions, and so on).

VR empathy becomes more accessible to the extent the user comes to a VR experience possessing the same ‘universal’ perceptual habits developers originally designed for. Here a pre-existing alignment between VR developer and VR user is crucial: a user inhabiting the default position the developers had in mind is most likely to have their experiential expectations confirmed. The further away from this default, whether experientially or physically (divergences in height or interpupillary distance, for example), the less likely the user’s habitual expectations will be confirmed. Meanwhile if there *is* an opportunity for encountering ‘irreducible otherness’ in VR, it is perhaps by experiencing a VR project that has not been designed with your body in mind, including the nauseousness and headaches that might result.² But this, again, is not an encounter with the ostensible subject of the VR piece, but rather an [69] encounter with the experiential defaults subscribed to by the VR developers themselves.

For those who already inhabit the ‘universal’ subject position imagined by VR developers, the VR empathy machine works to shore up this default perspective by presenting it as a generalized experiential truth. This default is likely some combination of the developers’ own perspective alongside that of their imagined target audience. To borrow Theodor Lipps’s influential definition of empathy, for developers VR serves as an ‘objectification of myself in an object that is different from me’ (quoted in Ercolino 2018: 244). And for those who come to the experience not already inhabiting this default ‘reality,’ VR can serve as effective training for learning to see the world from this perspective. Indeed, one of VR’s most successful use cases so far has been on-the-job instruction to train new employees in the standard practices of their employer. The VR empathy machine -- and here I mean not just the technology itself but the entire social apparatus surrounding it - is best understood as ‘a machine that produces subjectifications’

aligned to these normative ends (Agamben 2009: 23). The machine bends reality to pool experience around a designed-for subject position, while making it harder to adopt a perspective not accounted for by the device. If a user is ‘standing in someone’s shoes,’ it is the shoes of those who created the experience and modelled its first-person perspective. For some these shoes will slide on easily, while others will have to twist and strain their feet while trying to adjust.

Standing in the Game Master’s Shoes

While rarely explicitly foregrounded in actual VR experiences,³ the encounter between VR user and VR developer is often a far more intense and intimate empathetic relationship than that shared between the user and whatever beings they encounter in virtual space. After all, once in the headset VR users are inhabiting the same virtual perspective the developers often had as they were designing the experience. The user interacts with what the developer put there for them to interact with, from the same orientation the developer had when they were putting it all together. The developer may be figuratively absent from the finished product, but their view of the world is embedded everywhere in the experience, enveloping the user on all sides.

VR’s ability to generate a perceptual and emotional alignment between user and developer has gone largely undiscussed in the critical discourse surrounding VR projects. But the centrality of this alignment between user and developer is clearly evident when turning to online VR discourse, press coverage, and venture capital, where speculation and debate over the future role and social position of VR reigns supreme. And it is even more front and center when it comes to

fictional narratives *about* VR. VR fiction maps out the underlying affective investments powering the VR empathy machine in recent years.⁴

[70] Rather than position the individual user within a complex VR apparatus produced and managed by teams of people spread across different roles and often in different companies (a situation closer to the reality of VR production today), VR fictions overwhelmingly tend to imagine a singular human ultimately in control of the virtual space, in a ubiquitous relation to all that is sensed and felt within it. In a nod to the tabletop role playing games like *Dungeons & Dragons* many VR developers point to as an origin point and inspiration for virtual worlds they build, I propose calling this figure the ‘game master,’ the person players understand to be in ongoing creative control of the virtual world itself, and who’s seen to possess a god’s eye view of all that transpires within it.

Much how VR enthusiasts in the 1990s frequently cited novels and films like *Neuromancer* (1984), *Snow Crash* (1992), and *Lawnmower Man* (1992), two fictions overwhelmingly stand out as reference points for the 2010s VR revival: Reki Kawahara’s light novel-turned-anime series *Sword Art Online* (2009-) and Ernest Cline’s novel *Ready Player One* (2011).⁵ Both feature near-future scenarios where VR headsets allow access to sprawling virtual reality massively multiplayer online games (VRMMORPGs). And most importantly for this article, both stories model an empathetic trajectory running straight from player to game master. *Sword Art Online* and *Ready Player One* are both organized around a narrative arc where the protagonist starts out as an ordinary player, learns to beat the game by gradually adopting the

game master's perspective, and eventually crosses the user/developer divide and shifts into the role of game master themselves.

The protagonist of each story idolizes and is nearly obsessed with the VRMMORPG's head developer, the builder of the world they now operate within. While the action-oriented plotting of both texts concludes when the protagonists beat their respective games, the emotional and empathetic denouement of each story occurs only in the scene following this victory, when the protagonist is finally acknowledged and approved of by their game master idol.

Not accidentally, both stories feature a player-protagonist who inhabits the dominant 'gamer' default in their respective societies (Japanese and white straight male teen, respectively, it should be noted). *Ready Player One* (hereafter *RPO*) centers around one VR player, Parzival, and his attempts to peer into the mind of game developer James Halliday in order to understand the VR world he created, 'the Oasis,' and ultimately to try to inherit Halliday's own world-building power. Halliday's (and by extension, Cline's) 1980s popular culture obsessions are particularly central to *RPO*, serving as clues players must unravel for a chance to inherit Halliday's VR empire. To be successful in the Oasis Parzival must understand Halliday, and to understand Halliday, he must empathize with him.

[71] As Megan Condis explores in an excellent article on the book, the popular culture knowledge Cline/Halliday demands can be understood as an attempt to reproduce in the next generation of game players not just familiarity with Cline's own pop culture canon of 'gamer culture,' but also the social hierarchy embedded within it, one which 'overwhelmingly favored

the participation of college-educated white males over everyone else' (2016: 8). By setting up both the novel and its fictional VR tournament to 'directly reward *identification* with the young, straight, white male protagonists' central to his favored 1980s works, Cline ensures the successful navigation of Halliday's VR world is also at the same time 'a performance of white masculinity' (Condis 2016: 12, emphasis in original).

Condis notes how among other omissions, Cline's book tends toward a 'systematic undervaluing of Japanese contributions to gamer culture' (2016: 10).⁶ At nearly the same time, however, the other major fictional touchstone for the new era of VR developers was a Japanese series. Perhaps even more than *RPO*, *Sword Art Online* (hereafter *SAO*) has served as a fictional touchstone for younger VR developers and audiences globally, particularly for those in the large overlapping audience for video games and anime.⁷

Trapped in the Game

The empathetic bond between VR player-protagonist and VR game master also plays a key role in *SAO*, and the series explores it at much greater length than in Cline's stand-alone novel. *SAO* also goes much further in exploring the role of negative empathy as an affective glue between player and developer. Set in the Tokyo area beginning in the summer of 2022, the series follows a cast of teenage gamers who log into a new virtual reality massively multiplayer online role playing game. The game, the eponymous *Sword Art Online*, is the first of its kind to offer what its developers call a 'full dive' interface. This means the headset (called a NerveGear) interfaces directly with the brain, allowing the game engine to effectively replace the player's immediate sensory environment. After the player lies down on a bed, puts on the headset, and voices the

command *link start*, brain signals are routed in and out of the *SAO* servers instead of the player's body, leaving the latter inert and unaware, as if in a deep sleep.

What sets the *SAO* drama in motion takes place on the very first day of the public release of the game, when the first 10,000 players have logged in and are beginning to explore the new world. Inside VR players attempt to use the usual downward hand swipe to bring up the menu to exit the game, but discover the logout button has mysteriously disappeared. Soon after all 10,000 players are summoned to the town square where the game first began. A massive caped figure descends from the sky, announces himself as the game's designer, Akihiko Kayaba, and reveals the logout button's disappearance is [72] not a bug, but a central feature. Kayaba declares no player will be able to log out until someone beats the entire game. If a player's hit points run out in the meantime, or if someone on the outside world attempts to remove the NerveGear from the player's body, the system will immediately microwave the player's brain, killing them instantly. The rest of *SAO* Book 1 follows the main protagonist, Kirito, as he levels up, works his way through the game, and eventually defeats Kayaba and emerges victorious after two years of continuous 'full dive' immersion. During this period 4,000 of the 10,000 players are killed by the system. Many of those who manage to survive are left traumatized by the experience.

After the scene in the town square, Kayaba emerges as the central villain of the series. But as the narrative progresses, Kawahara frequently hints Kirito and Kayaba's relationship is not entirely antagonistic. From the start, Kirito logs into the game as a fan and follower of Kayaba's work as a genius game developer, a kind of gamer crush. Just after Kayaba's statement in the town square, Kirito recalls:

Like most other hardcore gamers, I held a deep reverence for Kayaba. I bought every magazine profile and reread his precious few interviews until I could practically quote them from memory. Just the brief sound of that voice conjured my mental image of Kayaba, looking smart in his ever-present white lab coat. (Kawahara 2014, n.p.)

When Kayaba reveals the twist trapping everyone in the game, Kirito is as traumatized as everyone else, and his admiration transforms into hatred. But as he nears the end of the game and finally defeats Kayaba's in-game avatar at the end of Book 1, there are hints his shift in feelings has never been absolute. At this point, everyone holds Kayaba responsible for the deaths of 4,000 people, including players Kirito knew and grieved personally. At the same time Kirito's narration betrays feelings of admiration, envy, and even gratitude for Kayaba mixed in amongst the anger. He even imagines Kayaba from inside the game as 'a merciful god, gazing down from a great height' (Kawahara 2014, n.p.). As with the Parzival-meets-James Halliday scene at the end of *RPO*, *SAO*'s first major arc concludes not when Kirito beats the game and saves the day, but when Kayaba reveals himself and personally recognizes Kirito as his equal, fulfilling and repaying Kirito's earlier emotional investment in him.

Why such empathy for a mass murderer? Some clues can be found by considering the rest of what happens in-game from Kirito's perspective, parts I left out of the bleak summary above. In the two years between becoming trapped in the headset and defeating Kayaba, Kirito falls in love and marries another player within the game. They move together to an idyllic forest retreat in a quiet part of the game world, where they live out a virtual family life complete with an AI-based

in-game daughter. The teenage boy [73] gamer fantasy driving *SAO* on the level of in-game emotions is easy to spot: Kirito is physically scrawny and not particularly popular in everyday life, but in-game everyone – and particularly of course the female players – quickly recognizes his power and charisma. The strong circle of friends Kirito develops through VRMMORPG play counters what the Kawahara portrays as an otherwise isolated, lonely life.

SAO also frequently dwells on the beauty of VR environments offered up by the series' various VRMMORPGs, paired with messages about learning to relax and enjoy the simple pleasures of life in VR even when stuck in the middle of a 'death game' like *Sword Art Online*. Kirito's narration often stops to describe and appreciate the intricacies of Kayaba's VR engineering. A message Kawahara consistently returns to throughout the series emphasizes how despite all the violence, trauma, and abuse perpetrated by Kayaba the game master, the VR system he designed remains magnificent and worth returning to (as all of the main surviving *Sword Art Online* players show they are ready to do).

Kirito's interest in how the system works puts both him and the reader on a trajectory not just towards winning the game and saving the day, but more and more into the behind-the-scenes world of VR development. By Book 6 (Kawahara 2015) the Japanese government hires Kirito to examine other emerging VRMMORPGs, and by Book 9 (Kawahara 2016) a company has hired him to consult on a next generation VR interface. As he grows into his role as aspiring game developer, Kirito admires Kayaba even more. The Parzival/Halliday and Kirito/Kayaba pairings both serve as a prototype for the emotional arc mapped out in the VR empathy machine. Audiences are invited to identify directly with the protagonist, imaginatively travel this trajectory

along with him, and in so doing, become excited about the future of VR. Kirito's mixed feelings for Kayaba go even further, modeling how a game master might serve as a focus for both the positive and negative empathy VR can produce.

Here too audiences already embodying the default role of the teenage male gamer will have an easier time aligning with Parzival or Kirito's perspective. While it is easy to find comments online connecting excitement about *SAO* or *RPO* with excitement about VR, others found far less to admire in Cline's and Kawahara's narratives. Both stories have been widely criticized for their treatment of female characters in particular. As Constance Grady (2018) notes, critical attitudes towards *Ready Player One* turned negative around 2015, just as #Gamergate was triggering a recognition of male gamer power fantasies as something other than harmless fun. *SAO* has similarly been a popular target for derision online (particularly among English-speaking audiences), with anti-*SAO* videos among the most viewed and discussed anime critiques on YouTube, and blogs like *Everything Wrong With Sword Art Online* formalizing the anti-*SAO* rant as almost a genre unto itself.⁸ Kawahara has issued apologies on Twitter after audiences complained about [74] his repeated use of sexual assault against female characters as an easy plot device (Morrissy 2018). In these critiques, as well, negative empathy targeting both stories has kept them at the center of audience attentions.

In all these ways, *SAO* and *RPO* became lightning rods for the charged emotions surrounding VR's recent reemergence, attracting a complex mixture of both positive and negative feelings. Not only has this made them important parts of the larger VR empathy machine, but it has also

positioned both *SAO* and *RPO* as empathetic lodestars for real-world VR developers stepping into the game master role themselves.

Palmer Luckey, Supervillain

For a non-fictional example of how a VR game master becomes the target of both positive and negative empathy, no one fits the bill better than Palmer Luckey. Luckey famously began developing the headset that would launch the most recent VR revival, the Oculus Rift, as a seventeen-year old living in a trailer parked in front of his parents' home in Long Beach, California. This eventually led to the founding of the Oculus VR company, a wildly successful \$2.5 million dollar Kickstarter campaign to launch the developer version of the Oculus Rift in 2012, and Facebook's purchase of the company in 2014 (see Introduction to this themed issue). Luckey, of course, did not revive the VR industry singlehandedly. But he fit the ready-made image of a white male teenager-turned-tech entrepreneur, and for a time his face made for a compelling boy genius figure for journalists and investors alike.

Luckey has repeatedly pointed to both *Ready Player One* and *Sword Art Online* as major touchstones for his work in VR. He went so far as to distribute a copy of Cline's book to all new hires at Oculus in the early days of the company, and had the author visit in person to sign them. After being introduced to *SAO* by his girlfriend (now wife), Nicole Edelmann (GOROman 2018: 97), Luckey has been a vocal fan of Kawahara's series as well, often posting images and quotes from the anime on his Twitter account. The theme song from the first season of the *SAO* anime even served as his cell phone alarm clock during his work at Oculus (Harris 2019: 318). VR

evangelist (and later Oculus Japan employee) GORoman recalls Luckey making comments like ‘wouldn’t it be great if there was a NerveGear for the Oculus too?’ (GORoman 2018: 97)⁹

Luckey was far from alone in finding *SAO* an exciting model for Oculus’s VR future. He even proposes that the coincidental simultaneous release of the Oculus Kickstarter and the third episode of the *SAO* anime in July 2012 may have spurred on the success of both projects (Kubota 2017). The comment sections under both Oculus and *SAO*-related videos online from the time bear this out, with *SAO* fans often referencing developments at Oculus, and comments following Oculus announcements similarly speculating over [75] how long it would be before the technology could support an *SAO*-like VRMMORPG. Enthusiasm for Kirito’s experience in fictional VR easily ported over to enthusiasm for a company working to bring VR fictions to life.

From 2012 to 2015 Luckey was the swirling center of his own vortex of positive VR empathy, appearing on the cover of *Wired* (June 2014), *Forbes* (January 2015), and *Time* (August 2015). But the tide had already started to turn when Mark Zuckerberg decided Oculus would be key to Facebook’s future VR plans. Up until that point the popular sentiment towards Luckey was primarily supportive, but within a couple years he would transform into a major target for negative empathy as well. As Blake J. Harris narrates in *The History of the Future* (2019), first came the backlash from early Oculus enthusiasts who felt selling the company to Facebook was the equivalent of selling out the future of VR, betraying the promises of openness and transparency the company had made early on. Then in September 2016 *The Daily Beast* outed Luckey as the main financial contributor to a scheme emerging from Reddit’s infamous r/The_Donald pro-Trump message board (Resnick and Collins, 2016). The scheme, assembled

by a group calling themselves Nimble America, was to purchase billboards to use for an ‘offline shitposting’ campaign targeting Hillary Clinton in the lead-up to the 2016 election. The online response from technology journalists and disappointed Oculus supporters after the story broke was fast and furious, transforming Luckey into a subject of negative empathy almost overnight. Facebook management asked him to take a series of extended leaves, leading to him eventually departing Oculus altogether under a cloud of speculation. He resurfaced in 2017 with a new company, Anduril (a sword named after the ‘flame of the west’ in *The Lord of the Rings*), and a call for ‘patriotic’ engineers to help the company build VR and AR-based border security technologies for the US Department of Defense (Brown 2017).

Luckey’s tumultuous career so far makes a striking real world parallel to Kayaba’s in *SAO*, at least so far as he has become a lightning rod for large amounts of both positive and negative empathy from VR audiences as a whole. While no longer directly involved in consumer VR, his comments on new developments in the industry continue to be covered in the virtual reality press. Harris’ book, which makes a sympathetic effort to clarify Luckey’s role in the Nimble America scandal, nonetheless hints Luckey is prone to conspiracy theories (70) and was at least sympathetic to the kind of right-wing trolling that found a home on r/The_Donald. *History of the Future* also foreshadows the scandal through a dialogue where Luckey admits to wanting to grow up to be a supervillain, because ‘supervillains were the ones who had all the coolest stuff’ (376).

This empathy for the villain reappears in Luckey’s first major interview following the Nimble America scandal, when he sat down with Japanese virtual reality news site *Mogura VR* while in

Japan for a cosplay event in 2017. Despite [76] having emerged as a kind of supervillain in his own right in the American technology press, Luckey describes wanting to become more like Akihiko Kayaba, the creator of the *Sword Art Online* VRMMORPG who traps people in his game just to see what happens. Luckey muses he wants to make a future VR game where in-game events trigger a similar ‘serious result’ in the outside world, though he promises to stop short of actually killing players (Kubota 2017). Luckey’s fascination with Kayaba has persisted, with him going so far in 2019 as to change his Twitter profile picture to a portrait of Kayaba (Figure 1) and proclaiming (in Japanese) that Kayaba is ‘the most interesting character.’¹⁰



Figure 1. Palmer Luckey’s Twitter account with Akihiko Kayaba profile picture.

Screen capture May 27, 2019.

At first glance these actions all seem simply designed to provoke, much in the spirit of the online troll. But in a sense Luckey has followed through on this desire to be a game master presiding over more serious life-and-death scenarios, shifting the focus of his VR work from entertainment to military applications and advocating for other American technology companies to do the same (Luckey 2018). Later in the same *MoguraVR* interview, Luckey reiterates his desire to develop a direct brain-computer interface like the NerveGear, an interest he has subsequently begun acting on (Hatmaker 2017, Thompson 2018).

As the subject of heightened emotional investment throughout the recent reemergence of VR, Luckey has served as an important cog in the broader VR empathy machine. As Harris' book illustrates, while this attention was initially based on Luckey's own achievements, his overdetermined public image as VR savior/villain also came to serve as a conduit for heightened emotions surrounding the technology as a whole, emotions often traced along the paths set out in fictional VR narratives like *SAO* and *RPO*. Luckey clearly was but one part of a larger and more diverse VR industry working to revive the technology. But just as in the earlier narratives, the VR empathy machine focused both positive and negative emotional investment onto a limited number of individuals cast in the VR game master role.

Conclusion

Rather than understanding VR's capacity to shape emotion as limited to what goes on inside the device itself, I have argued here for a broader understanding of the VR empathy machine including VR fictions, journalism, and other conduits for the heightened feelings surrounding the technology. This broader perspective reveals how the VR industry's most sustained empathetic

investments (the strongest concerns for someone else's well-being, positive or negative) are aimed not at those serving as the subject of any particular VR experience, but rather at the game master figures who serve as symbolic targets for popular emotions surrounding the technology. These figures tend to already embody the default subject position of white or Japanese male gamer or game developer, and the empathy they catalyze reinforces their centrality as the 'universal' subject of VR experience.

[77] This does not mean, however, that VR narratives cannot be retooled to extend empathy to a broader variety of people, including those poorly served by these existing pathways. Rather than seek to build a wider range of 'empathy [78] simulators' (to go back to Yang's term), the reworked understanding of the VR empathy machine presented here suggests the most powerful nodes for shaping VR empathy are VR developers themselves and the stories popularly told about them. Whomever controls the narrative not just in VR but *about* VR will have the capacity to channel emotions surrounding the technology. Much can be gained from a clearer understanding of the mechanisms by which some are centered and some are marginalized by the current emotional pathways of the VR empathy machine, including negative empathy, and I have sought to contribute to that mapping here. The other, equally necessary move is to stop paying attention to these same few default figures, to fight against designs that reinscribe existing structural privilege as the experiential default, and to make space to allow a broader range of individuals to inhabit and reshape the game master role. There have been some positive steps here in recent years, including from Oculus (Krueger 2018), but much work remains to be done.

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¹ Brandt and Messeri (2019: 7) note how recent fictional representations of VR on television have, by comparison, been far more inclusive, even as the shows themselves ‘remain relatively “un-diverse” behind the scenes.’

² Despite the argument that follows below, interpupillary distance (IPD, a measurement necessary for properly bringing the head-mounted display into focus) is one area where VR empathy sometimes does *not* extend to Palmer Luckey. In a blog post denouncing Oculus’ recent decision to remove manual IPD adjustment from their recent headsets, Luckey describes himself as part of the minority of people falling outside the ‘normal’ IPD range, making him unable to comfortably use headsets with only software-based IPD settings (Luckey 2019).

³ *Virtual Virtual Reality* (Tender Claws, 2017) being a notable exception.

⁴ Here I follow Lawrence Grossberg’s observation that affects are culturally ‘organized according to maps which direct people’s investments in and into the world.’ These ‘mattering maps’ guide people in ‘how to use and how to generate energy, how to navigate their way into and through various moods and passions, and how to live within emotional and ideological histories’ (2014: 82). What counts as perceptual and emotional ‘immersion’ in VR experience is always reliant on these existing affective pathways.

⁵ Light novels are roughly the Japanese-language equivalent of young adult literature, with an orientation towards fantasy and science fiction and the added feature of manga-style character illustrations on the cover and interspersed throughout. Like Kawahara, many light novel authors get their start posting work at amateur web novel writing sites. Kawahara first began posting segments of *Sword Art Online* online in 2002. For more on *SAO*’s important position within Japanese light novel history, see Saito 2016.

⁶ Steven Spielberg’s 2018 film adaptation adds in more references to Japanese games and science fiction, but also introduces new ‘Orientalist’ tropes as it reimagines the novel’s Japanese characters Daito and Sho.

⁷ Currently numbering 27 published volumes, as of 2017 the *Sword Art Online* light novel series has sold over 22 million books worldwide, including at least 7 million outside of Japan in a wide range of official translations. Volumes 1-8 were adapted into two seasons of a popular anime series of the same name, with a third season currently airing. The first feature-length film, the augmented reality-oriented *Sword Art Online the Movie: Ordinal Scale* was released theatrically in 2016 and 2017 on over 7,500 screens in 27 countries. The series also has a large catalogue of spin-off manga, video games, and merchandise, plans for a live-action version from Netflix, and a

number of limited-engagement *SAO*-themed virtual reality and augmented reality experiences. *SAO*'s popular success also triggered a years-long boom in the *isekai* [other world] genre in light novels, anime, video games, and online fiction.

⁸ On YouTube, see *SAO* complaint videos from anime vloggers DigiBro (<https://youtu.be/3uON7ANNOi4>), AniSins (<https://youtu.be/r6ovDkD6t2U>), and Mother's Basement (<https://youtu.be/qZ9NIThB3SY>), each of which have millions of hits as of April 2019. Some YouTubers reveal they purposefully chose to make videos on the topic knowing it was likely to garner a lot of clicks and viewer engagement.

⁹ Luckey's anime otaku interests are well known in the Japanese VR community. GORoman even brought a suitcase full of *SAO* and Hatsune Miku merchandise to Luckey in the US as part of a ploy to convince him to bring Oculus VR to Japan, a strategy he jokingly referred to as the '*SAO* Merchandise Souvenir Operation' [*SAO guzzu omiyage sakusen*] (GORoman 2018: 100).

¹⁰ Tweet at <https://twitter.com/PalmerLuckey/status/1133151970888257536>. Accessed May 28, 2019.