Virtual Reality in the 2020s: Peace Machine or War Machine?

Dennis Jansen
Department of Media and Culture Studies, Utrecht University
Drift 15, 3512 BR
Utrecht, the Netherlands
d.jansen1@uu.nl

Laurence Herfs
Department of Media and Culture Studies, Utrecht University
Drift 15, 3512 BR
Utrecht, the Netherlands
l.l.herfs@uu.nl

Keywords

empathy, militarism, Palmer Luckey, sociotechnical imaginaries, technopolitics

INTRODUCTION

We find Virtual Reality (VR), and the ideas about what world the technology is meant to bring about, at a particularly vexed moment in time. The dream of VR as "the ultimate empathy machine" (Milk 2015) has held sway over the medium for the past decade, propagated most prominently by Meta's "VR for Good" programs and later by the United Nations' deployment of VR as "PeaceTech" – as a *peace machine.*[1] However, by 2024, Meta had paused its "VR for Good" program and began scaling down its Reality Labs division (Bye 2024; Isaac 2025). In 2025, together with military tech company Anduril Industries, Meta announced a $100 million contract with the U.S. Department of Defense (DoD) to develop VR hardware for the Army. This is an ironic turn of events, considering that Anduril founder Palmer Luckey was allegedly ousted from Meta for his pro-Trump politics in 2017, a few years after his company Oculus VR had been bought up by the then-liberal tech giant for over $2 billion (Hayden 2024). Luckey himself has described the project as a personal victory, having now "persuaded not just Meta but many others that working with the military is important" (in Somerville 2025, n.p.).

In the current political situation, with Silicon Valley's general realignment towards the far right and the global militarization of Big Tech in full swing, we are witnessing VR drift from its aspirations of being a technology for peace towards being a technology for the war machine. We explain how this shift could take place through an analysis of the martial history and "technopolitics" (Hecht and Edwards 2010; Ølgaard 2025) of Virtual Reality and its surrounding "sociotechnical imaginaries" (Jasanoff 2015). Key to that analysis will be an attentiveness to how the affordances of VR as a "playful media technology" (Frissen et al. 2015) have been mobilized both

Proceedings of DiGRA 2026

in the service of peace and of war, and how both sides operate through a similarly violent logic of surveillance and control.

A MARTIAL HISTORY OF VIRTUAL REALITY

We trace VR technology back to the first head-mounted displays created by Ivan Sutherland in the late 1960s for military helicopter pilots and observe its continued development in mainly military-industrial and technoscientific contexts throughout the Cold War and post-Cold War period (see Lenoir 2000). A key moment in the history of this "military-academic-entertainment complex" (Messeri 2024, 43) is the founding of the Institute for Creative Technologies (ICT) in 1999, a DoD-funded collaboration between the university, the U.S. Army, Hollywood and the interactive entertainment industry that has since its inception aimed to "pool expertise, financial resources, and tools of virtual reality for the production of state-of-the-art military simulations" (Der Derian 2009, 160). The ICT spawned many military simulation projects using VR and commercial off-the-shelf videogame software, the most well-known of which are Albert "Skip" Rizzo's VR therapy projects for combat veterans with post-traumatic stress disorder (see Brandt 2016; Friedrich 2016; Mead 2013).

The ICT was also where Palmer Luckey first prototyped the technology that would become the Oculus Rift VR gaming headset in 2012, thereby spinning this military technology back into the civilian domain along a playful vector. Luckey's subsequent abandonment of commercial VR and his trajectory into right-wing nationalism and defence contracting – founding Anduril in 2017, the same year as his ousting from Silicon Valley – shows how the lineage of VR's martial history continues materially and semiotically in various ways today (cf. Evans 2018; Harley 2020). War haunts its imaginaries, its designs and experiences, through intersecting systems of power within cultures of technological development and through the politics of its creators. Microsoft's controversial contract with the U.S. DoD to adapt its existing HoloLens technology into an "Integrated Visual Augmentation System" (Liaropoulos 2024, 311; see also González 2022), which ran from 2018 until its eventual takeover by Anduril and Meta in 2025, stands as another prominent example of this haunting.

THE TECHNOPOLITICS OF WAR AND PEACE

That said, with Meta's "VR for Good" and the UN's "Futuring Peace" programs there were for a time several artistic and political movements who claimed that VR could catalyze empathy and peace (cf. Bollmer 2017). They argued that the technology "can reduce the ideas that divide us, [...] lessen and transform the emotions that separated us [...] and somehow come to a joint way of looking at reality" (Casas 2023). These actors have presented VR as humanitarian and capable of humanizing faraway others, provoking compassion and understanding for migrants and other marginalized groups. This hope was expressed through numerous VR projects, including *Clouds Over Sidra* (Arora and Milk 2015), *Children Do Not Play War* (VILD Studio 2019) and *You Destroy. We Create.* (NowHere Media 2022), all of which contrasted starkly with Luckey's belief that VR is able to "turn warfighters into technomancers" (Luckey 2025, n.p.). Whereas one side of the technopolitical struggle seeks to overcome violence using VR, the other actively pursues it with the same means.

Yet this apparent split in VR's sociotechnical imaginary hinges on precisely the same techno-magical understanding of the elusive qualities of the medium. We will show that both the proponents of peace and of war assume that VR, as an "ultimate display" (Sutherland 1965) that comprehensively indexes multiple material realities into one virtual totality, will transform its users into radically optimized versions of its idealized underlying cultural schemata. The proponents of VR and other serious gaming applications in the military domain regularly frame their efforts as 'life-saving' and claim recourse to the old Latin adage, *Si vis pacem, para bellum* ("If you want peace, prepare for war"). At the same time, the peace that organizations like the UN – and formerly, Meta – aim to establish through VR is often itself complicit in logics of identity tourism, racialized surveillance and neocolonial forms of symbolic and material violence (see Nakamura 2020; Suzuki 2022). It seems, then, that the interactive gaze of VR, whether for peace or for war, diffracts through the same prism of surveillance and control.

ACKNOWLEDGMENTS

This research was supported by the Dutch Council for Scientific Research (NWO) through a 'PhDs in the Humanities' grant (PGW.21.036) and the 'Open Competition SSH' project *Virtual Reality as Empathy Machine: Media, Migration and the Humanitarian Predicament* (406.21.CTW.015).

REFERENCES

Bollmer, Grant. 2017. "Empathy Machines." *Media International Australia* 165 (1): 63–76. https://doi.org/10.1177/1329878X17726794.

Brandt, Marisa Renee. 2016. "Simulated War: Remediating Trauma Narratives in Military Psychotherapy." *Catalyst: Feminism, Theory, Technoscience* 2 (1): 1–42. https://doi.org/10.28968/cftt.v2i1.28829.

Bye, Kent. 2024. "#1361: Agog Immersive Media Institute Launches to Help Social Good Orgs Leverage XR – Voices of VR Podcast." *Voices of VR*, March 11. https://voicesofvr.com/1361-agog-immersive-media-institute-launches-to-help-social-good-orgs-leverage-xr/.

Casas, JuanMa, dir. 2023. *Pathways for Peace*. PirataFilms. https://vimeo.com/870652231.

Der Derian, James. 2009. *Virtuous War: Mapping the Military-Industrial-Media-Entertainment Network*. 2nd edition. New York, NY: Routledge.

Evans, Leighton. 2019. *The Re-Emergence of Virtual Reality*. London and New York, NY: Routledge.

Friedrich, Kathrin. 2016. "Therapeutic Media: Treating PTSD with Virtual Reality Exposure Therapy." *MediaTropes* 6 (1): 86–113.

Frissen, Valerie, Sybille Lammes, Michiel de Lange, Jos de Mul, and Joost Raessens. 2015. "Homo Ludens 2.0: Play, Media, and Identity." In *Playful Identities: The Ludification of Digital Media Cultures*, edited by Valerie Frissen, Sybille Lammes, Michiel de Lange, Jos de Mul, and Joost Raessens, 9–50. Amsterdam: Amsterdam University Press.

González, Roberto J. 2022. *War Virtually: The Quest to Automate Conflict, Militarize Data, and Predict the Future*. Oakland, CA: University of California Press.

Harley, Daniel. 2020. "Palmer Luckey and the Rise of Contemporary Virtual Reality." *Convergence* 26 (5–6): 1144–58. https://doi.org/10.1177/1354856519860237.

Hayden, Scott. 2024. "Meta's Head of XR Apologizes to Oculus Founder Regarding His Ousting." News. *Road to VR*, October 3. https://www.roadtovr.com/metas-apologizes-oculus-founder-palmer-luckey-ousting/.

Hecht, Gabrielle, and Paul N. Edwards. 2010. "The Technopolitics of Cold War: Toward a Transregional Perspective." In *Essays on Twentieth-Century History*, edited by Michael Adas and American Historical Association, 271–314. Philadelphia, PA: Temple University Press.

Isaac, Mike. 2025. "Meta Weighs Cuts to Its Metaverse Unit." *The New York Times*, December 4. https://www.nytimes.com/2025/12/04/technology/meta-cuts-metaverse-unit.html.

Jasanoff, Sheila. 2015. "Future Imperfect: Science, Technology, and the Imaginations of Modernity." In *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*, edited by Sheila Jasanoff and Sang-Hyun Kim, 1–33. Chicago, IL: The University of Chicago Press.

Lenoir, Timothy. 2000. "All But War Is Simulation: The Military-Entertainment Complex." *Configurations* 8 (3): 289–335. https://doi.org/10.1353/con.2000.0022.

Liaropolous, Andrew N. 2024. "Digitizing the Battlefield: Augmented and Virtual Reality Applications in Warfare." In *Routledge Handbook of the Future of Warfare*, edited by Artur Gruszczak and Sebastian Kaempf, 308–18. London: Routledge, Taylor & Francis group.

Luckey, Palmer. 2025. "Turning Soldiers into Superheroes." *The Blog of Palmer Luckey*, February 11. https://palmerluckey.com/turning-soldiers-into-superheroes/.

Mead, Corey. 2013. *War Play: Video Games and the Future of Armed Conflict*. New York, NY: Houghton Mifflin Harcourt.

Messeri, Lisa. 2024. *In the Land of the Unreal: Virtual and Other Realities in Los Angeles*. Durham, NC: Duke University Press.

Milk, Chris. 2015. "How Virtual Reality Can Create the Ultimate Empathy Machine." TED, March 18. https://www.ted.com/talks/chris_milk_how_virtual_reality_can_create_the_ultimate_empathy_machine.

Nakamura, Lisa. 2020. "Feeling Good about Feeling Bad: Virtuous Virtual Reality and the Automation of Racial Empathy." *Journal of Visual Culture* 19 (1): 47–64. https://doi.org/10.1177/1470412920906259.

Ølgaard, Daniel Møller. 2025. "The New Technopolitics of War: (Re)Imagining Agency and Authority in Military Affairs." *Global Policy* 16 (3): 474–79. https://doi.org/10.1111/1758-5899.70045.

Somerville, Heather. 2025. “Meta Fired Palmer Luckey. Now, They’re Teaming Up on a Defense Contract.” Technology. *The Wall Street Journal*, May 29. https://www.wsj.com/tech/meta-army-vr-headsets-anduril-palmer-luckey-142ab72a.

Sutherland, Ivan E. 1965. “The Ultimate Display.” *Proceedings of the International Federation of Information Processing Congress* 2 (January): 506–8. https://scispace.com/papers/the-ultimate-display-35zd3b9ucp.

Suzuki, Moe. 2022. “The Limits of Humanisation: ‘Ideal’ Figures of the Refugee and Depoliticisation of Displacement in Virtual Reality Film *Clouds Over Sidra*.” *European Journal of Cultural Studies* 25 (5): 1266–85. https://doi.org/10.1177/13675494221076542.

[1] See: https://futuringpeace.org/about.