

The Good Life+: Well-Being in Virtual Worlds

Edward Speer
California Institute of Technology
HPS/PI 136, FA '24
Prof. Steven Quartz
No Prompt

April 6, 2025

Abstract

Virtual and augmented reality (VR/AR) technologies are rapidly becoming more sophisticated, increasingly offering users the experience of simulated presence. As these technologies advance, they raise important questions about the nature of well-being in virtual worlds. Classical accounts emphasize the importance of authenticity for well-being, and deny that virtual worlds can provide authentic experiences. This paper combines insights from the philosophy and psychology of well-being to argue that virtual worlds can provide authentic experiences, and analyzes the quality of experiences in virtual worlds over several dimensions relevant to well-being to show that one can live *The Good Life+*: The Good Life in a virtual world.

1 Introduction

The philosophical quest to understand happiness has been a central one in the history of both philosophy and psychology across the globe. Philosophers in the Western tradition from Aristotle to Mill have sought to understand what constitutes a good life, and how one can achieve it. In more recent years, the fields of psychology and neuroscience have joined the discourse, providing empirical insights into the nature of human well-being (Stoll, 2014). A crucial dimension of the debate in this field is on the topic of *authenticity*. Many traditional accounts of well-being require

that lifestyles be authentic in order to be good (Varga and Guignon, 2023). As with many areas of philosophy, the rise of new technologies has brought new challenges to the debate. In particular, the rise of virtual environments in recent years has raised significant questions about the meaning of authenticity and its role in well-being.

Virtual and augmented reality (VR/AR) technologies are rapidly becoming more sophisticated, offering users increasingly immersive experiences that simulate complete virtual environments (Yuying Wang and Siau, 2024). These technologies seek (with increasing success) to give users a sense of *presence* in a virtual world, such that they feel as though they are actually there (Slater, 2018). Already this technology has found applications in diverse fields ranging from entertainment to education to therapy, with further applications on the horizon (Hamad and Jia, 2022). As people spend more time inhabiting virtual worlds, it becomes increasingly important to understand the impact of these worlds on human well-being. This paper will explore the authenticity condition for well-being as it applies to virtual worlds, and argue that *contra* classical accounts, virtual worlds can provide authentic experiences and contribute positively to well-being. I will begin by presenting the traditional objection to virtual worlds as inauthentic through the lens of Nozick's experience machine thought experiment. In sections three and four I will then develop an explicit account of virtual worlds and their ontologies, and in section five I will use this account to analyze how the inhabitation of virtual worlds impacts well-being along several important dimensions identified from the psychology and philosophy of well-being. I will use this analysis to argue that one can live *The Good Life+*: The Good Life in a virtual world.

2 The Experience Machine

In 1971, Robert Nozick introduced a thought experiment known as the Experience Machine (EM). The EM is a hypothetical device that can simulate any experience the user desires, such that they cannot distinguish between the simulated experience and reality. Nozick asks us to consider whether we would choose to plug into the EM, and argues that most people would choose not

to. Nozick says of such a choice, “plugging into an experience machine limits us to a man-made reality, to a world no deeper or more important than that which people can construct. There is no actual contact with any deeper reality, though the experience of it can be simulated” (Nozick, 1974). Nozick’s perspective can be formalized as a two part claim:

1. Authenticity is a necessary condition to live a good life.
2. Life in the EM is necessarily inauthentic.

Nozick’s argument was developed in the context of a debate between two schools of thought in the philosophy of well-being: hedonism and eudaemonism. Hedonists hold that pleasure is the only intrinsic good, and that the good life is one filled with pleasure. Eudaemonists, on the other hand, hold that living the good life requires the actualization of one’s human potential (Ryan and Deci, 2001). Nozick took the eudaemonic perspective, arguing that while life in the EM would be constantly pleasurable, it would not be a good life as the inauthenticity of life lived there would occlude the possibility of actualizing one’s potential in a meaningful way.

Authenticity here can be understood as the degree to which an experience is genuine, or the extent to which it reflects the true nature of the world. In this context, Nozick is arguing that the experiences in the EM are inauthentic because they are not grounded in the real world, and therefore cannot be meaningful. Nozick’s argument has been influential in the debate over the relationship between authenticity and well-being, and has been used to argue against the possibility of living a good life in a virtual world (Slater et al., 2020).

3 Virtual Worlds

A variety of attempts have been made to define virtual worlds throughout the philosophical literature. It is difficult to adopt a definition sufficient to provide a demarcation between virtual worlds and other types of worlds. Consider the case of augmented reality (AR) technologies, which overlay virtual objects onto the physical world. Does this qualify as a virtual world, a

hybrid environment, or merely a new interface for engaging with physical reality? The difficulty of defining virtual worlds is compounded by the fact that the technologies that enable them are rapidly evolving, and the experiences they provide are becoming increasingly sophisticated.

For the purposes of this paper, I will use a definition proposed by Carina Girvan, who defines a virtual world as a simulated environment which meets the following criteria for a world ([Girvan, 2018](#)):

1. It is a spacial structure inhabited and shaped by agents.
2. Experiences and their interpretations are mediated by physical and psychological responses of the inhabitants.
3. Inhabitants use their bodies to move around the world and interact with the environment and other inhabitants.

I will clarify the second and third criteria here by stating that the body of an inhabitant is not limited to their body in physical reality, but also includes the embodiment of the inhabitant in the virtual world. For example, if a VR technology succeeds in facilitating the presence effect such that I feel as though I am embodying the avatar of a bird flying through the sky, then my physical responses and interaction with that virtual body are sufficient to meet these criteria.

This definition of virtual worlds is broad enough to encompass a wide variety of technology, while excluding those that do not provide the sense of presence necessary for a world. Modern VR headsets are clearly included - they provide a fully simulated spatial structure in which users move around and interact with the environment and other users. Their experience is shaped by their physical and psychological responses, and they can shape the world in turn. AR technologies also fit this definition - though they rely on the physical world for portions of their spatial structure, they provide a simulated environment that users can interact with and shape. This definition successfully excludes technologies which do not facilitate the sense of presence necessary for a world, such as a movie or even a first-person video game. Though a movie may provide a simulated environment, it does not meet the criteria of inhabitation and shaping by agents, as the

viewer is a passive observer. A first-person video game may meet the first and second criteria, but importantly, I do not have an embodied experience of my avatar in the game in the way one would expect in a virtual world.

Nozick's EM can be understood as a virtual world under this definition. The EM is a simulated environment providing a spatial structure in which the user can move around and interact with the environment. Through neural stimulation, the user is provided an embodied experience in the EM, and their physical and psychological responses shape their experience. The EM is quite an extreme case of a virtual world, as it maintains a higher level of isolation of the user from the physical world than most modern VR technologies. Given this, if I can demonstrate that the EM can provide authentic experiences, I will have shown that the virtual worlds accessible through modern and upcoming VR technologies can also provide authentic experiences.

4 Virtual Digitalism

Key to analyzing the “authenticity” of experiences in virtual worlds is developing a clear ontology accounting for the nature of virtual objects and the relationships between virtual objects and the physical world. David Chalmers provides a useful framework for understanding virtual objects which he refers to as “virtual digitalism,” with 4 key aspects ([Chalmers, 2017](#)):

- Virtual objects really exist and are digital objects.
- Events in digital worlds are largely digital events that really take place.
- Experiences in virtual worlds involve non-illusory perceptions of a digital world.
- Virtual experiences of a digital world can be about as valuable as experiences of the physical world.

This perspective is in contrast to the dominant view in classical philosophy called “virtual fictionalism” which holds that events and objects in virtual worlds are not real, but merely fictional entities.

Virtual digitalism can be described as the *it from bit* ontology of virtual worlds, holding that virtual objects are real objects whose existence is grounded in the digital information that constitutes them (Chalmers, 2022). Thus, a virtual rock is a real rock, but it is a rock that exists in a digital world and is made of bits rather than in the physical world and made of atoms. An avatar embodied by a user in a virtual world is a real body, but a real virtual body made of bits.

Importantly, this does not mean that virtual objects are identical to physical objects that they may resemble. For example, if I keep a dog as a pet in a virtual world, I don't have a real physical dog, but I do have a real virtual dog. The meaning of "dog" is different in the virtual world than in the physical world, and my virtual dog will have many characteristics that a physical dog would not share, yet it makes the dog no less real. My pet is made of bits and may have programmed behaviors, but one may still possess a pet in a meaningful sense.

Similarly, interacting with a virtual facsimile of a person or object that exists in the virtual world is not the same as interacting with the person or object in the physical world, but constitutes a real interaction with a real (virtual) person or object. To borrow an example from Chalmers, if I have a conversation with virtual Barack Obama in virtual reality, I am certainly not conversing with the Barack Obama from my physical reality, but I am conversing with a different virtual person who is real in the virtual world. Virtual people may vary widely from their physical counterparts - depending on the world, they may be more or less intelligent, lack memories, lack consciousness, etc. - and these factors may certainly affect the value of the interaction. Conversing with virtual Obama is likely a lower quality conversation and less valuable to me than conversing with physical Obama, but this value judgement is not based on some "illusory" or "fictional" aspect of the virtual Obama, merely on the differences between the two real Obamas.

5 Authenticity of Virtual Experience

Virtual digitalism gives us tools to analyze the authenticity of experiences within Nozick's EM. Recall that Nozick's argument was based on the false and illusory nature of experiences in the EM.

However, having established that the EM is a virtual world, applying the framework of virtual digitalism shows that experiences in the EM are not illusory, but real experiences of a digital world. Whether or not experiences had in this world are valuable to one's well-being is now a different question - rather than asking whether fictional or illusory experiences can be valuable, we are asking whether experience of digital objects, persons, or events can be valuable. To answer this question, I will consider 3 pertinent dimensions of well-being drawn from the literature and their applicability to virtual worlds: pleasure, achievement, and identity.

5.1 Pleasure

Pleasure is a common dimension of well-being associated with the hedonic theory of well-being, and it provides the most straightforward case for the value of virtual experiences. In the hedonic theory, the volume of pleasurable experiences as compared to painful ones is the primary determinant of well-being. Different concepts of "pleasure" define different hedonic theories of well-being described by different utility functions ([Kahneman, 1999](#)), but any of them can be applied to virtual experiences.

Early hedonic theories of well-being focused on the intensity and duration of physical pleasures and pains. Physical sensations are essentially a prerequisite for the sense of presence in virtual reality, and it is clear that any virtual environment meeting the qualifications for a virtual world will be able to provide physical sensations to the user. In Nozick's EM, physical sensations are simulated for the user through direct stimulation of the user's brain and experienced as ordinary physical sensations. Even in the limited VR systems of today, users interact with controllers and other devices which use haptics to provide physical sensations to the user, with capabilities continually evolving ([Wang et al., 2019](#)). There is no reason to believe that the physical sensations provided by our experience in virtual worlds would be any less pleasurable, intense, or long-lasting than those in the physical world, so that it is natural to expect that virtual experiences can provide physical pleasure to a user in the same way that physical experiences can.

More modern approaches to hedonism add mental and emotional dimensions to the utility

function by which pleasure is measured. An analysis of how mental and emotional pleasures can be experienced in virtual worlds reveals that they are also well-suited to provide these types of pleasure. Mental pleasures are pleasures derived from intellectual activities, such as solving puzzles or learning new information. Virtual worlds can clearly provide these pleasures in equal measure to the physical world. For example, the experience of solving a jigsaw puzzle in a virtual world could be simulated to be identical to the experience of solving a physical jigsaw puzzle, and will therefore provide the same mental pleasure. Virtual worlds may also unlock doors to mental pleasures that are not possible in the physical world, such as the pleasure of exploring a virtual world that is physically impossible to create in the physical world, solving a puzzle that cannot be realized in physical space, or communicating with a virtual person who is physically impossible to meet.

Emotional pleasures provide an arguably more complex case for the value of virtual experiences, and depend in part on whether or not a user is aware they are in a virtual world. In a case like the EM, where the user is unaware that they are in a virtual world, emotional pleasures experienced in the virtual world will be equivalent to those experienced in the physical world. Since the user believes that they are experiencing real events, the emotional responses they have to those events will be natural emotional expressions. In a case like modern VR headsets, the user is aware they are interacting with a virtual world. Users will be much less likely to experience intense emotional responses to the virtual persons they encounter, as they will recognize the ontological limitations of agents within the virtual environment. However, they could still experience strong emotional responses to other users of the virtual world in the same way that they would in the physical world. For example, a user could fall in love with another user in a virtual world, analogous to how individuals may form emotional bonds through online platforms. The emotional response is real, and obtains through the inhabitation of the virtual world, demonstrating that virtual worlds can provide rich emotional pleasures to users.

5.2 Achievement

Achievements and their role in well-being are a central focus of the eudaemonic theory of well-being. Proponents of *achievementism* argue that achievements serve as a mechanism to carve out and obtain those desires that are relevant to one's well-being. Through the pursuit of achievements, individuals promote their own well-being by satisfying those desires relevant to the actualization of their potential (Bradford, 2016).

One might argue that the events or objects in virtual worlds are fundamentally different from those in the physical world and these differences make it impossible for them to be achievements. However, this perspective is dismissed with a simple thought experiment. Imagine an advanced computer scientist implementing a highly sophisticated and theoretical algorithm. The scientist works for years on the algorithm, and finally, after much effort, they are able to implement the algorithm in a programming language and run it to generate an output. This is something that is clearly an achievement by any measure. This begs the question: what precisely was achieved? An algorithm was implemented and an output was generated. Both of these can be summed up as the manipulation of bits in a computer. The same final organization of bits could have been obtained much more simply by hardcoding the output, or typing ones and zeros into the computer, yet we know that the implementation of the algorithm is a much greater achievement because of the symbolic meaning of the bits. Consider, by contrast, a user engaging with a VR environment, who beats a game and obtains a virtual trophy. "Beating the game" and "a virtual trophy" are both simply manipulations of bits in a computer system, made valuable by their symbolic meaning. The only difference is how the manipulations were brought about. The user in VR had to interact with the virtual world in particular ways whereas the scientist had to interact with the physical world in particular ways, but the outcome is functionally equivalent in terms of symbolic structure and effort. Therefore it is clear that the question is not whether virtual achievements are possible, but rather the conditions of interaction with a virtual world under which achievements can be meaningful.

In this paper, I will depend on Laurence James' definition of *m-achievements* as those achieve-

ments that are meaningful and increase one's well-being (James, 2005). If virtual worlds can provide m-achievements, then they can provide a valuable source of achievement-based well-being. An achievement is an m-achievement if and only if, for individual x ,

1. x would have a cause to reassess themselves if they did not achieve it.
2. When x achieves it, x can justifiably increase their self-conception.
3. It is hard for the average person to do.
4. It is hard for x to do.

We will work through these conditions in reverse order.

The third and fourth conditions are straightforward. Solving difficult puzzles in the EM or in modern VR headsets is clearly just as hard as solving them in the physical world. Note that this doesn't imply *equal* difficulty between a physical achievement and its virtual counterpart - for example, climbing virtual Mount Everest is likely easier and less dangerous than climbing the physical Mount Everest - but it doesn't need to be equal. The important point is that the virtual achievement is hard for the individual to do. Some virtual achievements could be harder than physical ones - for example, a virtual achievement that requires the user to solve a puzzle that is physically impossible to create could be harder than any physical puzzle.

The second condition is also straightforward. One is able to increase their self conception when they successfully complete an action which they were previously unsure was within their capabilities. This is clearly true in virtual worlds. Just because the domain in which I demonstrate the new capability is virtual doesn't mean that the capability is any less real. However, this point requires careful analysis through the lens of virtual digitalism. Perhaps I am not sure in the real world if I have the capability of dunking a basketball. However, if I enter a virtual world where my avatar is 8 feet tall and dunk the basketball, I haven't demonstrated that I can dunk a basketball, I've demonstrated that I can dunk a *virtual* basketball. This case would not allow me to advance my self-conception, as if you had previously asked me if I could dunk a virtual basketball in VR

where I was 8 feet tall, I would have clearly said yes. Of course, if on the other hand, I was unsure if I could dunk a virtual basketball under the conditions of a particular virtual world and then did so, I would have increased my self-conception.

The first condition is similarly clear. If I set out to achieve a virtual achievement, investing many hours of virtual world inhabitation and much effort towards it, and fail to achieve it, I would have cause to reassess myself. There is little to no difference between this condition in the physical world and in the virtual world. Just because all of my time and effort into the task was spent interacting with virtual objects in a virtual world in no way diminishes the value of that time or effort, and therefore the value of the achievement.

5.3 Identity

Identity appears to be a complex but critical dimension of well-being. Our psychological capability to rationalize our experiences and actions in terms of our self-conception is a key component of our well-being ([McAdams, 2013](#)). Actions and events that are consistent with our self-conception are likely to increase our well-being, while those that are inconsistent are likely to be aversive. Virtual worlds add a new and highly uncertain dimension to this area, as they allow people to take on new identities and embody different physical forms across different virtual worlds ([Lin and Latoschik, 2022](#)). Research in this area is still in its infancy, but I would argue that whether or not inhabitation of virtual worlds can *always* provide a positive contribution to one's well-being through identity, it can certainly do so in many cases.

Consider the case of the EM. In the EM, the user acts fully as themselves. Since they are unaware they are inhabiting a virtual world, every event and action will have precisely the same impact on their identity as it would in the physical world. We can use this as a basis to consider what happens in other virtual worlds where the user may be aware they are inhabiting a virtual world. Perhaps in said world, the user acts as themselves fully, and creates an avatar which is an accurate representation of themselves. In this case, I think it is clear that the user's actions and experiences in the virtual world will have a *very similar* impact on their identity as they would in

the physical world. The user still acts as themselves, and attributes their actions, abilities, and thoughts to themselves.

Now consider a virtual world in which the user plays as a character who is not themselves, and the user is aware they are inhabiting a virtual world. In this case, the user's choice to embody a different character will have an impact on the self, however this impact need not be negative. Perhaps the user is playing the part of a character they would like to be, say, more confident or decisive. Or the user could play as a character with whom they identify more strongly than with their physical self - for example, a user who identifies as a different gender could easily embody their gender in a virtual world. These examples suffice to show that inhabitation of virtual worlds can provide a positive contribution to one's well-being through identity, even if there exist cases in which virtual identity embodiment may not contribute positively.

6 Conclusion

In this paper I have used virtual digitalism to argue that the inhabitation of virtual worlds, such as the one simulated by Nozick's Experience Machine, offer authentic experiences with virtual objects and agents. I have shown that the experiences offered by virtual world technologies provide the necessary ingredients for living the good life, and that therefore the good life can be lived in virtual worlds. This conclusion has important implications for the future of virtual reality technologies and the way we think about the value of virtual experiences. The good life, therefore, is not confined to the physical realm; it may also be realized within virtual environments.

It is worth noting that empirical studies have shown that people tend to reject the possibility of living in Nozick's experience machine ([Hindriks and Douven, 2018](#)). This may be thought to undermine my argument by showing that people estimate that the experiences in the EM are less valuable and would have adverse effects on their well-being. However, it has also been shown that people are very poor predictors of what will make them happy ([Wilson and Gilbert, 2005](#)). In any case, I do not claim that people should be made to live in virtual worlds if they don't wish to.

I claim only that the good life can be lived in virtual worlds, establishing the basis for a new way of thinking about the value of virtual experiences.

References

- Gwen Bradford. Achievement, wellbeing, and value. *Philosophy Compass*, 11(12):795–803, 2016. doi: 10.1111/phc3.12388.
- David J. Chalmers. The virtual and the real. *Disputatio*, 9(46):309–352, 2017. doi: 10.1515/disp-2017-0009.
- David John Chalmers. *Reality+: Virtual Worlds and the Problems of Philosophy*. W. W. Norton, New York, 2022.
- Carina Girvan. What is a virtual world? definition and classification. *Education Technology Research and Development*, 66:10877–1100, 2018. doi: 10.1007/s11423-018-9577-y. URL <https://link.springer.com/article/10.1007/s11423-018-9577-y#article-info>.
- Ayah Hamad and Bochen Jia. How virtual reality technology has changed our lives: An overview of the current and potential applications and limitations. *International Journal of Environmental Research and Public Health*, 19(18), 2022. ISSN 1660-4601. doi: 10.3390/ijerph191811278. URL <https://www.mdpi.com/1660-4601/19/18/11278>.
- Frank Hindriks and Igor Douven. Nozick’s experience machine: An empirical study. *Philosophical Psychology*, 31(2):278–298, 2018. doi: 10.1080/09515089.2017.1406600. URL <https://doi.org/10.1080/09515089.2017.1406600>.
- Laurence James. Achievement and the meaningfulness of life. *Philosophical Papers*, 34(3):429–442, 2005. doi: 10.1080/05568640509485166. URL <https://doi.org/10.1080/05568640509485166>.
- Daniel Kahneman. Objective happiness. *Well-Being: The Foundations of Hedonic Psychology*/Russel Sage, 1999.
- Jinghuai Lin and Marc Erich Latoschik. Digital body, identity and privacy in social virtual reality: A systematic review. *Frontiers in Virtual Reality*, 3, 2022. ISSN 2673-4192. doi: 10.3389/frvir.2022.974652. URL <https://www.frontiersin.org/journals/virtual-reality/articles/10.3389/frvir.2022.974652>.
- Dan P. McAdams. The psychological self as actor, agent, and author. *Perspectives on Psychological Science*, 8(3):272–295, 2013. doi: 10.1177/1745691612464657. URL <https://doi.org/10.1177/1745691612464657>.
- Robert Nozick. *Anarchy, State, and Utopia*. Basic Books, New York, 1974.
- Richard M. Ryan and Edward L. Deci. On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(Volume 52, 2001): 141–166, 2001. ISSN 1545-2085. doi: <https://doi.org/10.1146/annurev.psych.52.1.141>. URL <https://www.annualreviews.org/content/journals/10.1146/annurev.psych.52.1.141>.

- Mel Slater. Immersion and the illusion of presence in virtual reality. *British journal of psychology*, 109(3):431–433, 2018.
- Mel Slater, Cristina Gonzalez-Liencre, Patrick Haggard, Charlotte Vinkers, Rebecca Gregory-Clarke, Steve Jelley, Zillah Watson, Graham Breen, Raz Schwarz, William Steptoe, Dalila Szostak, Shivashankar Halan, Deborah Fox, and Jeremy Silver. The ethics of realism in virtual and augmented reality. *Frontiers in Virtual Reality*, 1, 2020. ISSN 2673-4192. doi: 10.3389/frvir.2020.00001. URL <https://www.frontiersin.org/journals/virtual-reality/articles/10.3389/frvir.2020.00001>.
- Laura Stoll. *A Short History of Wellbeing Research*, chapter 2, pages 1–19. John Wiley and Sons, Ltd, 2014. ISBN 9781118539415. doi: <https://doi.org/10.1002/9781118539415.wbwell098>. URL <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118539415.wbwell098>.
- Somogy Varga and Charles Guignon. Authenticity. In Edward N. Zalta and Uri Nodelman, editors, *The Stanford Encyclopedia of Philosophy*. Metaphysics Research Lab, Stanford University, Summer 2023 edition, 2023.
- Dangxiao Wang, Yuan GUO, Shiyi LIU, Yuru ZHANG, Weiliang XU, and Jing XIAO. Haptic display for virtual reality: progress and challenges. *Virtual Reality and Intelligent Hardware*, 1(2):136–162, 2019. ISSN 2096-5796. doi: <https://doi.org/10.3724/SP.J.2096-5796.2019.0008>. URL <https://www.sciencedirect.com/science/article/pii/S2096579619300130>.
- Timothy D. Wilson and Daniel T. Gilbert. Affective forecasting: Knowing what to want. *Current Directions in Psychological Science*, 14(3):131–134, 2005. doi: 10.1111/j.0963-7214.2005.00355.x. URL <https://doi.org/10.1111/j.0963-7214.2005.00355.x>.
- Le Wang Yuying Wang and Keng Leng Siau. Human-centered interaction in virtual worlds: A new era of generative artificial intelligence and metaverse. *International Journal of Human-Computer Interaction*, 0(0):1–43, 2024. doi: 10.1080/10447318.2024.2316376. URL <https://doi.org/10.1080/10447318.2024.2316376>.