Dreaming the Metaverse

Virtual Worlds as Audiovisual Fantasy

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INTRODUCTION

Few people were probably familiar with the term Metaverse before Oct. 28, 2021, when Marc Zuckerberg announced that his company would be renamed Meta. Zuckerberg promised then:

"The next platform will be even more immersive—an embodied internet where you're in the experience, not just looking at it. We call this the Metaverse, and it will touch every product we build."[1]

However, where did he get this term from? The simple and precise answer to this would be the novel *Snow Crash*, written in 1992 by Neal Stephenson. After a breakneck car chase to deliver a pizza in time, Stephenson's protagonist, Hiro, enters into an "imaginary space":

"He's in a computer-generated universe that his computer is drawing onto his googles and pumping into his earphones. In the lingo, this imaginary place is known as the Metaverse."[2]

This particular virtual reality is a space for a number of interactions and self-representations that offer an alternative social environment to the mostly dystopian physical world of the future. In it, people act through highly individualized avatars

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1 Zuckerberg, Mark: "Founders Letter, 2021," *FB*, January 28, 2021, https://about.fb.com/news/2021/10/founders-letter

2 Stephenson, Neal: *Snow Crash*, New York, NY: Bantam Books 1992, p. 22.

and accumulate status through digital currency and virtual possessions. As we see in the quote above, this Metaverse is accessed through a pair of glasses and headphones, not unlike how we would enter a virtual reality game nowadays.

Literary scholar Lars Schmeink insightfully traces salient elements of Stephenson's fantasy of the Metaverse back to science fiction writings as early as E.M. Forster's "The Machine Stops" (1905). Further ideas of living in a machine-generated world, self-representation through digital avatars, and connecting to a digital interface by using external gear—or even through a direct line from mind to machine—can be found in a variety of science fiction writings, many of them published in the 1970s and 1980s, at the dawn of the digital age.[3]

In the following, I will continue Schmeink's approach and follow the trail of the Metaverse as an audiovisual fantasy in mostly Western live-action films and television.[4] Although I singled out *Snow Crash* as the origin of the term Metaverse, I do not want to rely on the novel as a prototypical model and rather build a dynamic concept of the Metaverse, as it appears in various audiovisual examples. The first starting points for the corpus were academic literature and several pop cultural compilations of films connected to the idea of the Metaverse.[5] However, the initial list was continuously extended by extracting salient criteria, which were then used to look for additional audiovisual examples. Instead of just presenting the final result of this selection process, this paper endeavors to make each step in

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3   Cf. Schmeink, Lars: "Incarnations of the Metaverse in Science Fiction," in this volume, pp. 117-138.

4   There are certainly amazing examples of science fiction worlds imagining futuristic virtual worlds in Japanese anime or other non-western media, but to include these would overextend the scope of this paper.

5   For example: https://medium.com/building-the-Metaverse/television-shows-about-the-Metaverse-98d91c061a77 from 02.07.2021; https://medium.com/building-the-Metave rse/movies-about-the-Metaverse-a0797323e7f6 from 14.07.2021; https://www.express vpn.com/blog/best-movies-about-the-Metaverse from 02.03.2022; https://www.esqu ire.de/entertainment/film/Metaverse-science-fiction-filme-zukunftsvision-filme from 22.03.2022; https://www.epd-film.de/themen/wovon-traeumt-das-Metaverse from 23. 09.2022; https://www.digitaltrends.com/movies/best-Metaverse-movies from 05.11. 2022; https://co ingape.com/top-5-Metaverse-themed-movies-to-understand-virtual-re ality from 04.01.2023; https://www.investors.com/news/what-is-the-Metaverse-here-are-seven-great-virtual-views-from-hollywood/ from 09.03.2023; https://t3n.de/news/ vision-pro-Metaverse-fil me-serien-1445642 from 17.06.2023; https://filmora.wonder-share.com/more-tips/me taverse-movie.html from 29.02.2024; https://www.prefac e.ai/blog/metaverse-movies/

the process transparent and, by doing so, to include a more in-depth discussion about the criterion in question. Thus providing insight into my methodology and discussing salient components of the imaginations of the Metaverse independently. This is based on the assumption that there is not one vision of the Metaverse but several that share certain similarities but may also significantly differ in some regards. Not unlike the way Wittgenstein describes family resemblance between distinct manifestations of one and the same term, audiovisual depictions of the Metaverse can be more than one thing.[6] Furthermore, they may also be interwoven with larger cultural imaginations, depending on the current cultural climate fostered by hopes and fears about virtual worlds, digitality, and self-actualization.[7] Through the continuous process of encoding, comparison, and selection, distinct features and relevant discourses can be extracted and discussed individually.

At first, I selected six films (here in chronological order) that are repeatedly mentioned as significant examples of the Metaverse in film and television. All of them quite clearly display some form of virtual reality in an ad hoc understanding of the term:

- TRON:[8]
  Searching for proof that one of his computer programs has been stolen, the protagonist, Kevin Flynn, is scanned into the digital mainframe of a super-computer, where he has to fight against a megalomaniacal Master Control Program.

- THE MATRIX[9]
  Protagonist Neo learns that what he has always perceived as his physical reality is actually a digital simulation and that his body currently rests in a pod, where it is exploited as an energy source for artificial intelligence.

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6   Cf. Wittgenstein, Ludwig: *Philosophische Untersuchungen*. Frankfurt/M.: Suhrkamp 1977 [1953].

7   Graham Dawson describes cultural imaginaries as "vast networks of interlinking discursively themes, images, motifs and narrative forms that are publicly available within a culture at any one time" (Dawson, Graham: *Soldier Heroes: British Adventure, Empire and the Imagining of Masculinities*. London: Routledge 2005, p. 48). For a longer discussion, see Ossa, Vanessa: *The Sleeper Agent in Post-9/11 Media*. Cham: Palgrave Macmillan 2022, pp. 19-21.

8   TRON (USA 1982, D: Steven Lisberger).

9   THE MATRIX (USA 1999, D: Lana and Lilly Wachowski).

- The Thirteens Floor[10]

  Shortly before a group of programmers is about to launch a digital simulation of LA, one of the team members is murdered. Douglas, the protagonist of this neo-noir crime story, searches the simulated LA for clues to solve the murder.

- eXistenZ[11]

  The film plays with the confusion between several virtual game worlds nested inside each other like a Russian Doll. The main characters connect to the game via a console that they insert directly into a port in their bodies. Throughout the film, it is never quite clear whether they are in the physical world or entering another level of the game.

- Ready Player One[12]

  It is probably the most pronounced depiction of a Metaverse in recent film and television (all of the sources I came across in my research named this film as a salient example). Ready Player One takes place in a dystopian future in the US where people primarily interact in the Oasis, a virtual three-dimensional world that is entered via glasses, gloves, or suits. The late creator of the Oasis implemented several game-like challenges to win in order to become the new owner of the Oasis.

- Free Guy[13]

  A bank teller is robbed daily but never resists until he meets a beautiful woman and starts questioning his own inaction. As it turns out, he is a character in a video game world, and she is the avatar of an actual player looking for proof that the code for a virtual world was stolen from her.

The virtual realities depicted in these six examples consist of the digital infrastructure of a super-computer, two life-like digital simulations of the physical world, two computer games, and a multi-purpose platform that allows for self-expression, socialization, and elements of play and adventure, not unlike a video game. All of them are artificial and at least partly created by an entity other than the protagonist

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10 The Thirteens Floor (USA 1999, D: Josef Rusnak).

11 eXistenZ (USA 1999, D: David Cronenberg).

12 Ready Player One (USA 2018, D: Steven Spielberg).

13 Free Guy (USA 2021, D: Shawn Levy).

entering it. This distinguishes them from dream worlds and other solely subjective experiences depicted in audiovisual media. Although the virtual worlds in these examples are clearly separated from the physical world, the experience in all of them holds some relevance for the protagonist's life in the physical world.

VIRTUAL REALITY

If we investigate the history of virtual realities a bit further, it turns out that the term is much older and broader than one might think today.[14] Rob Shields states:

"The virtual has long existed in the form of rituals, and in the built form of architectural fantasies and environments. [...] Virtual worlds are simulations. Like a map, they usually start out as reproducing actual worlds, real bodies, real situations; but, like simulations […], they end up taking on a life of their own."[15]

Shields further traces the notion of the virtual from religion to discussions about dreams, mirror images, panoramas, virtual environments (such as the power-asserting architectures of churches), and eventually, digital applications and cyberspace. Lambert Wiesing criticizes such a broad approach to the term and distinguishes between two theoretical positions: On the one hand, there are some people who understand virtual reality as being as similar to physical reality as possible and treat it as just the next form of immersive media.[16] In this discourse, virtual reality stands in line with panorama images, the immersive powers of cinema, amusement parks, and other escapist endeavors that bring us to a space that seems real yet is only "almost so."[17]

On the other hand, there is an argument to be made that virtual realities created by digital media are fundamentally different since they do not always rely on likeness to the physical world in the same way immersive media usually do. For example, the virtual reality of a computer desktop with its abstract icons does not

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14 One of the oldest debates about the virtual is the question of whether Christ is really or virtually present in the Eucharist (Cf. Shields, Rob: *The Virtual*, London: Routledge 2003, pp. 5-6).

15 R. Shields: *The Virtual*, p. 4.

16 Cf. Wiesing, Lambert: *Artifizielle Präsenz, Studien zur Philosophie des Bildes*, Frankfurt/M.: Suhrkamp 2005, pp. 107-124.

17 R. Shields: *The Virtual*, p. 22.

strive to create an immersive experience.[18] I do not want to advocate for one understanding of virtuality over the other. However, I take from this discussion that both immersion and digitality are connected to the notion of virtual reality in different ways.

Going back to our six films, all of the virtual realities represented in them are digital, and several of them depict a high degree of immersion, resulting in the possibility of confusion between different realities. In this regard, it is not surprising that half of the examples are from 1999. During the early years of the digital age, popular culture reacted to the overall proliferation of mediated realities by questioning the perception of differences between reality and virtuality. This development also drew on earlier debates in postmodern philosophy, such as Jean Baudrillard's notion of hyperreality from his 1981 work *Simulacra and Simulation,*[19] which also questioned clear distinctions between physical and imaginary realities as well as our ability to distinguish between them. As Donna Haraway puts it: "[T]he virtual is precisely *not* the real; that's why 'postmoderns' *like* 'virtual reality.' It seems transgressive."[20] The overall fear that the real is not what it appears to be was retrospectively diagnosed as significant cultural anxiety by Slavoj Žižek in *Welcome to the Desert of the Real*:[21]

"The ultimate American paranoiac fantasy is that of an individual living in a small idyllic Californian city, a consumerist paradise, who suddenly starts to suspect that the world he lives in is a fake, a spectacle staged to convince him that he lives in a real world, while all the people around him are effectively actors and extras in a gigantic show."[22]

His two primary examples for the visualization of this anxiety are THE MATRIX and another film from the same period: THE TRUMAN SHOW.[23] If we now go ahead

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18 Cf. L. Wiesing: *Artifizielle Präsenz*, pp. 108-109.

19 Baudrillard, Jean: *Simulacra and Simulation*, Ann Arbor, MI: University of Michigan Press 1994.

20 Haraway, Donna: "The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others," in: Larry Grossberg/Cary Nelson/Paula Teichler (eds.), *Cultural Studies*, New York, NY: Routledge 1992, pp. 295-337, here p. 325.

21 Žižek, Slovoj: *Welcome to the Desert of the Real! Five Essays on September 11and Related Dates*, London: Verso 2002. A title, that is a direct quote from THE MATRIX, while, in turn, one of the characters of the THE MATRIX is also seen carrying a book called 'Simulacra and Simulations.'

22 S. Žižek: *Welcome to the Desert of the Real!*, p. 1.

23 THE TRUMAN SHOW (USA 1998, D: Peter Weir).

and separate the two aspects of virtual reality, identified by Wiesing—immersion and digitality—we are able to add nuances to our categories and henceforth also to include a few more examples to the corpus:

- DISCLOSURE[24]
  This early example stands out because it is not a science fiction film. It is an erotic thriller about sexual harassment that entails an early depiction of the internet as a virtual space. However, there is no danger of confusing physical and virtual reality, and the cyberspace is only a tool for accessing necessary data.

- THE TRUMAN SHOW
  The eponymous protagonist goes about his daily life without suspecting that he actually lives in a manufactured environment, the set of a reality TV show. His world is virtual, as it is an artificially created world that is "almost real," but it is not digital.

- WESTWORLD[25]
  In this science fiction TV show, people can enter an amusement park that simulates a Wild West environment. All characters in the park are robots controlled by artificial intelligence; the events in the park are scripted in several interrelated storylines, similar to the design of interactive and non-linear narratives designed for computer games.

However, broadening the definition of *virtual space* into *immersion* and *digitality* as independent criteria makes it necessary to add a general restriction to the corpus. The broad definition of virtual reality as seeming real but "almost so" might also include dreams, fantasies, and illusions, such as mirror images, and thus, a number of fantasy films and narratives from children's stories fit this category, too. However, as the Metaverse is mainly a vision of technological progress achieved in a real-world context, I limit the following discussions to examples taking place in either real-world scenarios or science fiction.

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24 DISCLOSURE (USA 1994, D: Barry Levinson).

25 WESTWORLD (USA 2026-2022, HBO).

Table 1: first list of examples, with virtual space, immersion, and digitality as categories.

Film	Virtual Space	Immersion	Digitality
Tron	X	O	X
Disclosure	X	O	X
The Truman Show	X	X	O
The Matrix	X	X	X
The Thirteenth Floor	X	X	X
eXistenZ	X	X	X
Westworld	X	X	O
Ready Player One	X	O	X
Free Guy	X	X	X

TRANSITIONS

As stated before, all of the examples above imagine a strict distinction between the real and the virtual world, and they also include a moment of transition between both of them. Generally speaking, notions of transition, or liminality, are indeed closely connected to the idea of virtual reality:

"Liminal zones are virtual environments or spaces. [...] A key part of the transformation is the suspension of everyday social norms to allow a rearrangement of the social order, conferring new status and allowing society to acknowledge and recognize the new identity of those who have been the focus of the ritual."[26]

In almost all of the examples above, the characters engage in a predefined process or notable ritual to enter the virtual world, or they cross a visible threshold, thus marking the virtual plane as a completely separate entity from their everyday reality. A space separate from the physical everyday world that defines the character's real-world expectations and experiences.

Glasses, Gloves, and Suits

FREE GUY, DISCLOSURE, and READY PLAYER ONE model their entry methods into the virtual world after real-world technological developments by employing

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26 R. Shields: *The Virtual*, p. 12.

glasses, gloves, hand controllers, specialized chairs, or full-body suits. Historically, the first steps to enter artificial three-dimensional worlds can be traced back to 1838, when scientist Sir Charles Wheatstone developed *binocular vision* for stereoscopic images.[27] Much later, in 1935, Stanley Grauman Weinbaum's short story "Pygmalion's Spectacles" employed the idea of glasses as a device for the characters to enter fictional worlds. This was realized in 1956 when Morton Leonard Heilig invented a virtual reality machine and expanded on it in 1960 when he created the first head-mounted display for stereoscopic 3D images. In the 1970s, MIT designed the Aspen Movie Map, offering users a computer-generated tour of a virtual place—the town of Aspen, Colorado. Finally, one of the last major steps to reach our current state of technology was fulfilled 40 years afterward when Palmer Luckey created the prototype for the Oculus Rift VR headset.[28]

FREE GUY depicts a character living in a 3D video game world. The real-world players are represented as customizable avatars that mostly do not resemble their physical appearances. The game is played via standard game controllers without VR components. The film DISCLOSURE, however, celebrates the act of putting on the glasses and the gloves as a sort of ritual, preparing the character to enter the virtual world, which is depicted as a classic architectural structure. READY PLAYER ONE depicts a variety of highly advanced equipment, which might provide advantages for solving the challenges in the Oasis and thus adds a consumer critical comment about the possibilities to access the Metaverse:

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27 Cf. Wade, N. J.: "Charles Wheatstone (1802-1875)." *Perception* 31, no. 3 (2002), pp. 265-272.

28 Marr, Bernard: "A Short History of the Metaverse," *Forbes*, March 21, 2022, https://www.forbes.com/sites/bernardmarr/2022/03/21/a-short-history-of-the-metaverse. It is notable that the film MINORITY REPORT (Steven Spielberg 2002) is also often mentioned as a film depicting the Metaverse. The connecting technology seems to be the hand-tracking technology envisioned by Spielberg in 2002, which is one of the most prominent features of the recently released Apple Vision Pro technology (cf., for example, Iniyan, E.: "Beyond Controllers: Apple's Vision Pro Brings Hand Gestures and Eye Tracking to Virtual Worlds," *Encora*, October 27, 2023, https://www.encora.com/insights/beyond-controllers-apples-vision-pro-brings-hand-gestures-and-eye-tracking-to-virtual-worlds). Although, the film was produced long before Apple's newest development, it is retroactively connected to imaginations of the Metaverse, as real-world technology progresses into a similar direction as the assumed future in this science fiction.

"What is noticeable from these examples [*Snow Crash, Tea from an Empty Cup* (1998), Ready Player One, The Lawnmower Man (1992)], is that any form of Metaverse will have distinct hardware components (from global infrastructure to individual devices or implants) that are imagined in most sf (and currently, in reality) to be ruled by capitalist interest. […] Either way, access to the Metaverse will not be democratic but strongly stratified depending on wealth."[29]

We see a particular development between these three films. In Disclosure from 1994, the simple act of looking up information on the internet requires meticulous preparation. However, Guy lives in a video game world that is casually interacted with on a computer screen. The act of entering the virtual world is most casual in the example, which fits the focus on the emotional development of the characters in the game. The real-world characters and their experiences in the virtual world are of little importance. In Ready Player One's envisioned future, however, it is relatively easy for the protagonists living in the real-world to enter the Oasis. It still requires preparation, but the characters are physically used to it, so they are able to enter the virtual world very quickly and in unusual circumstances, such as in the back of a moving car.

Plugs and Sockets

eXistenZ and The Matrix are examples in which the connection to the digital world ensues through a direct link into the body of the protagonist. In eXistenZ, this is a voluntary procedure, albeit not without considerable health risks if it is not done professionally. In The Matrix, the humans are unknowingly plugged into a virtual reality via a port in their necks. The intimate connection between the physical body and the virtual self results in the risk of killing the body if the virtual self imagines their death.

Scans

Tron and The Thirteenth Floor are two examples in which a digital scanning device facilitates the transition into the virtual world. In Tron, the physical body of protagonist Kevin Flynn disintegrates the moment he is transferred into the world of the super-computer. In The Thirteenth Floor, the person who wants

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29 L. Schmeink: "Incarnations of the Metaverse in Science Fiction," p. 148.

to enter the simulation is scanned by a green beam, and their mind is uploaded into one of the characters already living in the simulation.

Doors, Walls, and Railways

The Truman Show and Westworld also display moments of transition when the protagonists depart from one reality into another. The visitors of Westworld enter the amusement park through a futuristic yet non-descriptive train station. In The Truman Show, Truman eventually finds a door at the end of the horizon—which is actually a blue-painted wall. Interestingly, the visualization of this doorway into an external reality is quite similar to the scenes in The Thirteenth Floor and Free Guy, in which characters living in a virtual world try to reach the outside reality.

The visual repertoire of different pods, plugs, scans, and other equipment, as well as some form of visual boundary to mark the edges of the artificially created space, are part of the imaginary of the Metaverse. However, these moments of transition are not only relevant for the imaginations of the Metaverse; they also influence real-world achievements. Psychological research has shown that the visualization of a threshold, for instance, a doorway or a portal, positively affects the experiences of *presence* when VR headsets are used to enter a virtual world. The acceptance of the virtual worlds and, thus, the users' degree of immersion significantly benefit from the inclusion of such elements.[30]

The Avatar

Next to the virtual space, an avatar is one of the most characteristic elements of the Metaverse. This becomes especially apparent when we look at the description by the protagonist, Wade, as he enters the Oasis at the beginning of Ready Player One:

"This is the OASIS. It's a place where the limits of reality are your own imagination. You can do anything. Go anywhere. [...] People come to the OASIS for all the things they can do. But they stay because of all the things they *can be*."[31]

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30 Cf. Zimmer, Jonas: *Transzendenz gestalten: Interdisziplinäre Paradigmen für das Design virtueller Räume*. PhD Thesis, University of Cologne 2023, pp. 126-131, http://kups.ub.uni-koeln.de/id/eprint/73285

31 Ready Player One (USA 2018, D. Steven Spielberg), TC: 00:03:40, emphasis VO.

Avatars represent the user in the virtual world. They allow them to interact with the simulation, with characters in it, and with other avatars. In short, they extend ourselves into the virtual world as "virtual bodies."[32] On social virtual reality platforms (and to a certain extent also in games), customization of the avatar promises possibilities for limitless self-expression, as alluded to in the quote above.

"Like 'desiring-machines,' they [avatars] conjure a dialogicity or proximity that is in the process of appropriating our powers of speech and expression, of understanding our mimicry and gestures, and in doing so shifting the meaning of both humanity and sociality."[33]

Avatars allow us to interact as if we were present in the virtual environment, becoming "almost so" (i.e., virtual) ourselves. David Gunkel turns the ontological status of player and avatar into an even more complex problem by pointing out that the often-employed notion that the avatar is a mere representation of the actual *real* person in the physical world is founded on a Platonian understanding of the real as something out of grasp, but actually existing and reachable.[34] However, Gunkel further elaborates that, coming from a Kantian or Zizek-inspired position, we might need to accept that we cannot know what is behind the avatar or that this is precisely part of the truth of identity and reality of said avatar. Going back to our body of cinematic works, these questions become especially pressing if we investigate examples in which the protagonist is completely absorbed into the virtual world and leaves no physical body behind, for instance, in TRON.

I wrote before that avatars in video games might only be customizable to a certain extent. I mentioned this because the avatars in some video games are not only representations of the players but also—as fictional characters—part of the narrative. Maybe even—as transmedial fictional characters—part of an already well-established narrative world and equipped with certain recognizable physical

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32 See for the discussion of various forms of avatars as extensions, Beil, Benjamin: *Avatarbilder: Zur Bildlichkeit des zeitgenössischen Computerspiels*, Bielefeld: transcript 2012, pp. 17-21, https://doi.org/10.1515/transcript.9783839421550; for avatars as virtual bodies see Günzel, Sternagel/Mersch, Dieter: "Tracing the Avatar. An Afterword," in: Rune Klevjer: *What is the Avatar? Fiction and Embodiment in Avatar-Based Singleplayer Computer Games. Revised and Commented Edition.* Bielefeld: transcript 2022, pp. 219-226, here: p. 222.

33 Mersch, Dieter: "The Avatar," in: Dieter Mersch et al. (eds.), *Actor & Avatar*. Bielefeld: transcript 2023, pp. 24-29, here: p. 25. https://doi.org/10.14361/9783839467619-002

34 Gunkel, David J.: "The Real Problem Avatars, Metaphysics, and Online Social Interactions," *New Media & Society* 12, no. 1 (2010), pp. 127-141.

traits, characteristics, and mannerisms.[35] Since avatars in a narrative game share some functions with fictional characters in a story, they can be understood as "communicatively constructed artifacts" to whom we attribute their own intentions and mental processes.[36] As such, we can read them as aesthetic textual elements, as symbolic elements, or as thematic components of the story, as well as imagine them as fictional people, someone we pretend to exist beyond what is mentioned on the page or screen.[37]

However, within the narrative world of a game specifically, they also function as game pieces that represent rules and regulate the range of interactions for the player. Schröter and Thon describe the three-fold quality of video game characters by adding the modes of *simulation* and *communication* to the mode of *narration* that traditionally belongs to the representation of fictional characters (in video games, the latter is mainly found as an element of "predetermined narrative representation" such as cut scenes). The simulation mode includes elements of interactive gameplay. It focuses on the "characters' function as game pieces, which is connected to specific ludic abilities (such as 'running' or 'shooting') and characteristics (such as 'health' or 'accuracy') as well as to the game goals and the possibilities of interaction that the game provides."[38] The communication mode, includes the aforementioned forms of self-representation and focuses on the avatar

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35 For more on the recognizability of transmedial fictional characters, see Roberta Pearson or Ossa and Schmidt (Pearson, Roberta E.: "'You're Sherlock Holmes, Wear the Damn Hat!': Character Identity in a Transfiction," in: Paola Brembilla/Ilaria A. De Pascalis (eds.), *Reading Contemporary Serial Television Universes: A Narrative Exosystem Framework,* New York, NY: Routledge 2008, pp. 144-166; Ossa, Vanessa/Schmidt, Hanns Christian: "Playing with Batman. (De-)Constructing Transmedial Characters in THE LEGO BATMAN MOVIE," in: Joachim Friedmann (ed.), *Narratives Crossing Boundaries*. Bielefeld: transcript 2023, pp. 149-170, https://doi.org/10.14361/97838 39464861-006).

36 Eder, Jens. "Understanding Characters," *Projections* 4, no. 1 (2010), pp. 16-40, here: p. 18.

37 Cf. Phelan, James: "Narrative as Rhetoric and the MTS Model," in: Matthew Clark/James Phelan (eds.) *Debating Rhetorical Narratology: On the Synthetic, Mimetic, and Thematic Aspects of Narrative*, Columbus, OH: The Ohio State University Press 2020, pp. 135-50.

38 Schröter, Felix/Thon, Jan-Noël: "Video Game Characters. Theory and Analysis," *Diegesis. Interdisciplinary E-Journal for Narrative Research* 3, no. 1 (2014), pp. 40-77, here p. 48.

as "representations of the players in the social space of the game."[39] In game worlds, the affordances of the game rules and the attributes of the fictional character influence the creation of the avatar so that a blended identity between the physical and the virtual identity is constructed.[40] However, while it might be more apparent that playing a fictional character in a video game predetermines behavioral choices and courses of action from the virtual side (you will have a hard time playing a light-hearted Batman in a scripted video game), the physical influence on the blended identity is equally significant. This means that we are not only not independent of our gender, age, race, and educational background when we enter the virtual world but also that we carry our cultural and historical context—including all the biases—with us into the virtual realm.

Looking at our corpus, we see this, for instance, in Tron, when the virtual self of the protagonist is transformed into a car to participate in a race. Here, the mode of simulation completely takes over the representation. In Free Guy, however, one of the main narrative developments consists of the protagonist Guy, a background character in a video game, becoming self-aware and developing a purpose beyond his ludic function as a game piece (someone to be robbed, an obstacle to overcome).

Questioning the list of examples with the avatar as an additional criterion for Metaverse narratives in mind, it is now apparent that The Truman Show and Westworld deviate in another way from the main corpus—since both of them do not depict a digital world, the protagonists also do not use an avatar to enter this world. However, two other films that fit the criterion of avatar-centered movies come to mind: Avatar and Surrogates.

- Avatar[41]
  In 2154, an expedition to the planet Pandora, which is inhabitable for humans, employs avatars in order to gain the planet's resources, all the while destroying its ecosystem.[42]

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39 Ibid.

40 Cf. Fox Harrell, D./Lim, Chong-U Lim: "Reimagining the Avatar Dream: Modeling Social Identity in Digital Media," *Communications of the ACM* 60, no, 7 July (2017), pp. 50-61. https://doi.org/10.1145/3098342

41 Avatar (USA 2009, D: James Cameron).

42 The transition into the avatar's body is done by a scanning device not unlike the one in The Thirteenth Floor. Even the intercut between the body in the scanner and the brain scan of the user are quite similar.

Figure 1: Three different realms in SURROGATES.

Source: Film stills: SURROGATES (USA 2009, D: Jonathan Mostow)

- SURROGATES[43]

    The film plays in a future where most humans use robots—so-called sur-
    rogates—to manage their daily lives. They connect to the surrogate via a
    chair with sensors and control the surrogates like an avatar. Since the hu-
    mans are safe behind their walls and only the surrogates enter public space,
    murder has almost been eradicated until someone finds a way to kill the
    human controlling the surrogate with a specialized weapon.

SURROGATES is different from other examples because it depicts neither a digital
virtual space nor creates a separated, physical, virtual world in the way THE
TRUMAN SHOW or WESTWORLD do. Nevertheless, cinematography and set design
still manage to establish three separate domains for a.) the avatars, b.) the control-
lers of the avatars, and c.) for so-called Dreads, who are against the use of surro-
gates (see Fig. 1). The world of the surrogates is colorful and full of perfect bodies,
who often behave carelessly and overtly because they do not have to care for the
integrity of their body. They possess superhuman strength and are able to jump on

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43   SURROGATES (USA 2009, D: Jonathan Mostow).

moving cars or leap from tall buildings in the manner of powerful video game characters. The controllers of the surrogates live in small apartments that are shown mostly as hallways and look a bit rumpled. The Droits live in a separate district that resembles the dystopian real world shown in READY PLAYER ONE, with buildings in ruins, rusty containers, and junk lying around. The protagonist, Tom Greer, experiences an anxiety attack when he tries to move in public next to the surrogates and is thrown out when he tries to enter the space for the surrogate opposition, the Dreads. Nevertheless, there is also some conflation between the three spheres; for example, Tom's wife uses her surrogate even at home for interactions with Tom, and the leader of the Dreads turns out to be a surrogate himself. Thus, despite the special distinction, it is not always clear what (or who) is real or not.

MULTIPLAYER MODE AND NPCS

If we want to use our avatars to engage with others, we either need additional users to enter the same platform or so-called non-player characters (NPCs) as interactional partners. Again, in this regard, DISCLOSURE deviates from the other examples. Apart from a disembodied voice that gives guiding advice, Michael Douglas' character is the only person in the virtual space. This is yet another hint that this example reflects more on early fantasies of the internet, which understood it as an architecture of knowledge, primarily used to store data[44] and less about what we would call the Metaverse since a social component seems to be crucial for the Metaverse. As Zuckerberg as our most prominent Metaverse dreamer emphasizes here:

"The defining quality of the Metaverse will be a feeling of presence—like you are right there with another person or in another place. Feeling truly present with another person is the ultimate dream of social technology."[45]

However, this might be only a pit stop on our way to more significant developments in Metaverse applications:

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44 Cf. DeKosnik, Abigail: *Rouge Archives: Digital Cultural Memory and Media Fandom*, Cambridge, MA/London: The MIT Press 2016, here: pp. 42-46.

45 M. Zuckerberg: "Founders Letter, 2021."

"The first phase is the social Metaverse, which advocates for software development that facilitates people to connect through these meta worlds. This step will be critical in advancing the creation and incorporation of innovative and business scopes. The second phase is the ambient Metaverse, which is expected to offer a connection to the social Metaverse that goes beyond the scope of mobile devices. This phase will demand the inclusion of new devices that will allow access into the Metaverse through any form of the screen surface. The final phase is considered to be the singularity Metaverse which will only be achieved through hyper-connectivity."[46]

The last stage described here by Rawal et al. is, more or less, what we see imagined in READY PLAYER ONE, where the Oasis is an all-encompassing virtual world with different activities and environments that are all connected. Nevertheless, the social aspect is still prominent in the film:

"You can ski down the pyramids. You can climb Mount Everest—with Batman! Check out this place. It's a casino the size of a planet. You can lose your money there, you can get married, you can get divorced. You can—you can go in there …"[47]

Wade describes the Oasis as a place to meet other people as well as fictional characters. It is where he meets all his friends and where most of the social life within the film's reality takes place. All the other given examples (except DISCLOSURE) show either interaction between several avatars, avatars and NPCs, or NPCs among each other. Looking at the earlier criteria of immersion, we can now further

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46 Rawal, Bharat S. et al.: "Opportunities and Challenges in Metaverse the Rise of Digital Universe," in: *Metaverse—METAVERSE 2022: 18thInternational Conference*, Held as Part of the Services Conference Federation, SCF 2022, Honolulu, HI, December 10-14, 2022, Proceedings, Berlin, Heidelberg: Springer 2022, pp. 3-17. https://doi.org/10.1007/978-3-031-23518-4_1

47 Wade in READY PLAYER ONE, 00:04:05. The last place not mentioned in the dialogue is a motel, implying the possibility of having virtual sex. It is notable that the suggested interactions (casino, marriage, sex) here evoke the stereotypical image of Las Vegas, another artificially created place that Gundolf S. Freyermuth names as an immersive place, anticipating future virtual realities (Cf. Freyermuth, Gundolf S: "Vegas, Disney, and the Metaverse. On the Material Anticipation of Virtual Worlds and Virtual Play in the Second Half of the 20th Century," in: Benjamin Beil et al. (eds.), *Playful Materialities: The Stuff That Games Are Made Of*, Bielefeld: transcript 2022, pp. 17-89, https://doi.org/10.14361/9783839462003-002).

distinguish between a human (controlling an avatar) or an NPC being the one immersed in the virtual space to the degree that they do not realize anymore that there is another reality outside of their world. The latter is, for example, the case in Westworld, where the robots become slowly self-aware, in Free Guy, where the protagonist is an NPC, and in The Thirteenth Floor, where it is eventually revealed that the programmers creating the virtual simulation of LA are unknowingly themselves NPCs in just another virtual simulation.

Monetarization & Gamification

A growing number of real-life applications are discussed in the context of the Metaverse—even if there is little consent about the exact criteria for which ones are included and which are not. Most of them are digital virtual spaces, including customization of avatars, interaction with NPCs, and access through controllers, but not necessary headsets to enter a 3-D VR environment. Prominent current examples of Metaverse applications are Fortnite, Roblox, and Minecraft.[48] Looking at these examples, the three-dimensional visualization of the virtual world is less important than social interaction, a variety of possibilities for how to interact, and user-generated content seem to be (which supports the development stages assumed by Rawal et al.). All three examples are gaming platforms, and looking at new Metaverse platforms on the rise, gaming is persistently a prominent activity for Metaverse users. Another driving force behind the development of Metaverse applications is the monetarization of content—for example, through avatar customization. The possibilities of designing or buying unique items and fashion for an avatar seem to be lucrative business models, especially for high-quality brands and novelty items.[49]

It is, therefore, not surprising that several of the fictional versions of the Metaverse in my corpus also depict game worlds and that several of the examples that are not explicitly about game worlds still employ game-like elements or aesthetics. For example, the aforementioned car chase in Tron (see Fig. 2). Next to the competitive and agon-centered quality of this interaction, the design of the

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48 Fortnite (Epic Games, 2017, O: Epic Games); Roblox (Roblox Corporation, 2006, O: Roblox Corporation); Minecraft (Mojang Studios, 2011, O: Markus Persson/Jens Bergensten).

49 See for example, Lamerichs, Nicolle: "Towards a Responsible Metaverse Digital Fashion, Avatars and the Promise of Identity in Virtual Worlds," in this volume, pp. 335-350.

avatar and the NPCs as car-like entities for the duration of this sequence is reminiscent of the avatar being no more than a game piece in a primarily ludic game.

Figure 2: Tron Car Chase

Source: Film still, Tron (USA 1982, D: Steven Lisberger).

Especially in more recent examples, monetarization is also a topic for people entering virtual reality; quite often, this is also visualized. In Westworld, the quality of the experience depends on the money spent on the trip; in Ready Player One or Free Guy, avatars can amass valuable items and, with it, increase their social status. Whenever an avatar is killed, bystanders can pick up the money that is left behind by the deceased. It bursts out of them, ready for others to collect. Gameplay elements and monetarization are primarily addressed in the more recent examples depicting the Metaverse. However, it is notable that despite being an important factor for real-world Metaverse applications, user-generated content is rarely depicted as a salient criterion in fictional versions of the Metaverse.

Table 2: Overview of the final list of examples and categories

Film	Virtual Space	Immersion	Digitallity	Transition	Avatar	Multy	NPC	Game	Money
Tron	X	O	X	3	X	O	X	X	O
Disclosure	X	O	X	1	X	O	(O)	O	O
The Truman Show	X	X	O	4	O	O	X	O	O
The Matrix	X	X	X	2	X	X	X	X	O
The Thirteenth Floor	X	X - NPC	X	3	X	X	X	O	O
eXistenZ	X	X	X	2	X	X	X	X	O
Avatar	O	O	O	3	X	X	X	O	O
Surrogates	O	(X)	O	2	X	X	O	(X)	X
Westworld	X	X - NPC	O	4	O	X	X	X	X
Ready Player One	X	O	X	1	X	X	X	X	X
Free Guy	X	X - NPC	X	1	X	X	X	X	X

UPLOAD[50]

One quite recent example that not only checks all the boxes in my matrix but also depicts most of the criteria nuanced and critically is the Amazon show UPLOAD (2020-present). It is a veritable kaleidoscope of Metaverse tropes but also challenges viewers to question the social and technical developments of post-digital society.

Virtual Space: Digital and Immersive

To be *uploaded* means to enter one of several platforms that offer a virtual home for the mind after death. The physical body is destroyed during the process, so in case of critical injury, it might be a fatal choice to upload instead of life-sustaining measures, for example, surgery. On the one hand, this ups the stakes about the decision to upload; on the other hand, being dead seems to have become a technicality in a world where the living constantly interact with the dead.

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50   UPLOAD (USA 2020-present, Amazon).

The premium virtual afterlife, Lakeview, which our protagonist Nathan Brown enters, is designed like a hotel. To manage overcrowding, the guests only interact with people living on the same floor; everyone else is not visible to them. However, the digital environment glitches in places where several people reside due to the high demand for processing power. This is only one example of how the show includes technical difficulties and dangers of a completely digital environment.

In order to adjust to life in the virtual world, it is necessary to maintain an experience that is as life-like as possible. This means the people in this world are designed to experience bodily functions, such as sleep or hunger, and newcomers are encouraged to develop new everyday routines. Apparently, without a certain level of immersion into the virtual world, some guests do not adjust to the new situation and commit suicide. To avoid this and help with the transition into virtuality, every guest has a personal service employee at their side—an angel—whom they can call any time.

Transitions: Devices and Scans

Almost all of the transitions or borders mentioned above are utilized in UPLOAD. The hotel guests themselves are uploaded via a scanning device that lets their heads explode. As I mentioned earlier, it is a fairly final decision.

However, there are multiple ways for the living to communicate with the dead and even visit them. Video chats, phone calls, and text messages between the realities are no problem. The hotel has a restricted floor where people who do not live there meet for virtual parties. Although the hotel guests are forbidden to intermingle with these party guests, there are multiple other ways for them to meet people from the world of the living. They can receive visitors who use VR headsets or even full-body suits that allow for sensual experiences. For most of the three seasons already broadcasted, Nathan and his girlfriend, Ingrid Kannerman, try to maintain a relationship across realities. At the end of season one, Ingrid pretends in front of Nathan that she decided to voluntarily upload to be closer to him and to pressure him into continuing their relationship. During this phase of their relationship, Ingrid spends almost all of her time in a full-body suit in the bathtub of her apartment, struggling with adverse side effects of having a physical body: hunger, skin rashes from the equipment, cramps from lack of movement, and so on. Ingrid's competition for Nathan's affection is his angel, Nora. She mainly uses VR headsets and an avatar modeled after her physical appearance to interact with Nathan. This is also shown as problematic when a new service employee chooses Nora's avatar without telling Nathan about the switch.

Plugs or sockets are only used in UPLOAD when the possibility of downloading is introduced. Finally ending the permanence of death, the digital mind of a deceased person is downloaded via a port in the neck of a clone of their physical body, making the physical reality as virtual—as "almost so"—as the digital afterlives.

The last category, a doorway or a portal for the people living in the virtual world to get out, is playfully introduced in several ways: There is a secret passage in a hedge that leads to a rogue part of the afterlife, like the Darknet of the internet. There is also a waterfall that allegedly leads back into the physical reality but only irreversibly scrambles the data stream of an avatar, which leads to the aforementioned suicides. Moreover, when Nathan tries to leave Lakeview to investigate other options for his afterlife, he is sucked into a tube in the virtual reality and saved as data on a portable hard drive, which is later logged into a different console to transfer him to another virtual reality.

In many ways, UPLOAD disrupts the strict separation between virtual and physical worlds, as depicted in most previous examples. Mirroring how our daily lives are full of digital encounters in post-digital society,[51] Nathan is in no way isolated from the physical world. Nora even gifts him a design tool that not only allows him to reprogram his own environment. He can also hack into digital structures impacting the physical world and murder someone by manipulating the controls of an elevator. However, his agency and autonomy are certainly impaired by his virtual status. This is most evident in his funeral scene.[52] On the one hand, the event is live-streamed, so it happens parallel in New York, Los Angeles, and Lakeside, which means Nathan is able to attend himself. On the other hand, the event is completely planned and organized by his girlfriend, Ingrid, who is also the account holder of his virtual identity. This means she has the authority to decide about his whole environment, even to redress him with the click of a button. She turns the funeral into a PR event that does not reflect Nathan's past in any way.

However, the abundance of transitions, entryways, and exits negates their liminal status. There is no more *in-between*; everything is entangled. The separation between the digital and the physical world blurs constantly. With this, the series—more than other examples—reflects on the way in which *being virtual* or interacting virtually has become an everyday occurrence and how, for example, digital applications permeate our lives in the post-digital society.

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51 Jarvis, Liam/Savage, Karen: "Introduction: Postdigitality: 'Isn't It All "Intermedial"?'" in: idem. (eds.), *Avatars, Activism and Postdigital Performance: Precarious Intermedial Identities*, London: Methuen Drama 2022, pp. 1-16, http://dx.doi.org/10.5040/9781350159341.ch-I

52 UPLOAD, S1; E:3.

Avatars: Engaging other Players and NPCs

In the virtual reality, Nathan interacts with other hotel guests, visitors using technological devices and controlling an avatar, and NPCs. One of the problems concerning avatars that is explored in UPLOAD is one I already mentioned above: the unreliability of one's identity. Not only is Nora's avatar appropriated by another angel, but Ingrid also lends her avatar to someone else in order to get a break from her extended bathtub time. She hires an actor to play her in the virtual world. In this instance, Nathan is fooled twice by the possibility of anonymity or identity fraud in the virtual world (and twice by Ingrid, as he does not know he is interacting with an externally controlled avatar and thus has no chance to suspect this avatar is controlled by someone other than Ingrid).

In the case of the guests, the uploaded minds, another problem arises. They relinquish complete control to the corporation that owns the virtual reality they live in. This means that, for example, their thoughts and memories can be tempered with, and their bodies can be altered or even duplicated, bringing the malleability of digital data up to an existential level. Although the physical world has laws and guidelines against such conduct, both happen to Nathan.

The biggest topic to explore, however, are the NPCs. They are identical bellboys living to serve the wishes of the hotel guests. They are trained by Nora to appear more like humans, which questions the limits of AI to imitate human behavior. Throughout the three seasons, they develop their own side-story, which is a journey to more and more self-awareness and lets them step outside of their existence as mere game pieces. In season three, after the possibility of downloading was introduced into the show, some NPCs are even downloaded into artificial bodies to train in the physical world how it feels to be human and thus further blur the lines between digitalized human minds and AI.

Monetarization, Gamification, Security Issues

The aspect of monetarization and micropayments is addressed in multiple ways in UPLOAD. First of all, the protagonist is entirely under the control of his still-living girlfriend, which means all extras in the virtual world—such as the minibar or fancy outfits—are connected to her bank account. The amount of money spent decides the quality of life in the virtual afterlife, and even prior to entering Lakeview, it is a crucial factor in the choice of the virtual afterlife in general. Only the fairly wealthy can afford Lakeview. This is shown in an episode where Nathan tries to leave Lakeview and live in a different virtual world in order to finally become independent of Ingrid's financial control. Another option for a cheaper

afterlife, even within Lakeview, is the *2gig floor*. There, in the basement of the hotel, live people who have only 2 gigabytes of processing power per month available. This means excessive movement, detailed environments, or even complicated thoughts are prone to cost all available data in a short period of time and henceforth leave them frozen for the rest of the month until their accounts are freed up again. Through these details, the serial acknowledges the highly commercial interests behind most virtual environments and the excessive needs for processing power—and the connected financial and environmental costs—that most other fictional visions of the Metaverse (utopian or dystopian) leave out.

Although Nathan does not experience many elements of gamification during his stay in Lakeview, there is another guest at the hotel who turns his experience there into a game world. Dylan is a little boy who struggles with the fact that his avatar will always stay in a pre-adolescent body because that's how his account holders, his parents, want to keep him. He uses a specific *game mode* in which he can engage in fight sequences with the NPCs of Lakeview, reminiscent of the game STREETFIGHTER,[53] thus referring to the high frequency of combat-style game elements in many multi-player online role-playing games.

Both examples show the virtual protagonists as dependent on their account holders. In line with this, the show presents several problems connected to power relations, security issues, data protection, and surveillance. Due to the money trail they leave, the protagonist's actions are entirely transparent to their account holders, and due to constant monitoring by the angels, they are even more transparent to the company owning Lakeview. To escape this state of omniscient surveillance, the characters enter the *grey zone*, a virtual version of the Darknet hidden behind a hedge in Lakeview. However, if they stay too long, they might get erased when the hourly position check of their avatars does not get a clear signal back. So far, the series does not show us how this might play out. However, in another instance, when Nathan is of the grid for a while, a service employee is afraid of repercussions for having lost a customer and creates a copy of him from a backup drive. Throughout the following legal problems on how to handle two existing versions of a person with one identity, it turns out that all data belonging to the uploaded minds is legally owned by the company hosting Lakeview, which brings up—next to the question of online privacy—the question of copyright and ownership of intellectual property (or even intellect).

Another aspect that is quite important in the discourse about current Metaverse platforms but is rarely addressed in fiction is the element of user participation.

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53 STREETFIGHTER (Capcom, 1989, O: Takashi Nishiyama).

Presumably, because the element of interaction is exactly what is missing in audiovisual media, the audiovisual fantasies of the Metaverse do not emphasize this aspect all too much. However, in UPLOAD, Nathan originally developed a completely malleable, user-generated, free platform where users would have been able to design their own virtual environment—which would have been a considerable competition for the consumption-oriented, corporate-controlled Lakeview. However, before he could realize his vision, he was killed. The shareholders of Lakeview eventually used his designs to create their own version of a user-generated space to lure low-income households into an early move into the virtual environment (this plot element makes it the third instance in the corpus of a programmer looking for stolen code or designs. Apparently, the safety of intellectual property is a recurring element of Metaverse narratives). In UPLOAD, the promise of user-generated content and democratic access to assets in the Metaverse is shown as a utopian imagination that is only realized as a corporate trap with malicious intent. Meaningful user participation may be desirable, but it is yet to be achieved.

CONCLUSION

Although only a small corpus was examined, several recurring themes have been identified: Virtual realities as "almost so" copies of a perceived everyday reality, digital worlds, often as game worlds, that might be immersive enough to confuse their users about their ontological status, several devices and pathways into virtual realms, possibilities of interactions through avatars or with AI-generated beings, as well as newer aspects of gamification or monetarization. Although this paper did not directly tackle the question of what the Metaverse is, I hope the discussion shed some light on the many ways the Metaverse, as well as elements essential for the Metaverse, are depicted in fictional, audiovisual media. Furthermore, it pointed to some broader considerations about the nature of our reality, (virtual) identity, concerns about security, surveillance in digital environments, and the use of AI technology that are represented in the narratives about the Metaverse and thus part of the larger cultural imaginary connected to it. The increased depiction of gamification and monetarization shows that more and more actual applications of the Metaverse inform fictional representations of the Metaverse. It might be interesting to observe when we see more audiovisual examples that depict the Metaverse as part of our reality—and not as a dream in science fiction.[54]

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54 To add one last example, the serial MYTHIC QUEST (2020-present, Apple TV+) depicts in its third season a game designer working on the Metaverse. This is still shown as a

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