

April 2022

## Metaverse: Opportunities and Challenges for Marketers

Anubhav Mishra

*Jaipuria Institute of Management, Lucknow, India, anubhav.mishra@jaipuria.ac.in*

Saumya Awasthi

*Jaipuria Institute of Management, Lucknow, India, saumya.awasthi@jaipuria.ac.in*

Follow this and additional works at: <https://managementdynamics.researchcommons.org/journal>



Part of the [Advertising and Promotion Management Commons](#), [Business Administration, Management, and Operations Commons](#), and the [Business Intelligence Commons](#)

---

### Recommended Citation

Mishra, Anubhav and Awasthi, Saumya (2022) "Metaverse: Opportunities and Challenges for Marketers," *Management Dynamics*: Vol. 22: No. 1, Article 10: 79-84

DOI: <https://doi.org/10.57198/2583-4932.1305>

Available at: <https://managementdynamics.researchcommons.org/journal/vol22/iss1/10>

This Editorial is brought to you for free and open access by Management Dynamics. It has been accepted for inclusion in Management Dynamics by an authorized editor of Management Dynamics.

---

## Metaverse: Opportunities and Challenges for Marketers

### Abstract

Imagine if you are told that the life in which you are living, will going to be changed. How it will make you feel if you get to know that you can meet with your family members, friends, and go to work, not in real life, but rather in a three-dimensional virtual world? A world that is created artificially. Metaverse is a step ahead of imagination. Indeed, it is defined as an imaginary world where we can be a part of it, we can earn money from it, and ultimately, where, we can be a star by living our dream life.

### Keywords

metaverse, virtual reality, challenges, marketing

# Metaverse: Opportunities and Challenges for Marketers

Anubhav Mishra, Saumya Awasthi\*

Jaipuria Institute of Management, Lucknow, India

Imagine if you are told that the life in which you are living, will going to be changed. How it will make you feel if you get to know that you can meet with your family members, friends, and go to work, not in real life, but rather in a three-dimensional virtual world? A world that is created artificially. Metaverse is a step ahead of imagination. Indeed, it is defined as an imaginary world where we can be a part of it, we can earn money from it, and ultimately, where, we can be a star by living our dream life. It sounds a little complex. In the present time, the metaverse is a broad and next level of the updated social network.

Let us start with the etymology itself. The concept of the metaverse is not at all new. The term Metaverse was coined by one Science fiction writer Neal Stephenson coined the term in 1992, in his novel *Snow Crash*, as a portmanteau of “meta” and “universe”; viz. “beyond” and “universe”.

It was a place where people went to escape the totalitarian reality of the real world they live in. He said that Metaverse would be the successor of the internet. It is primarily used to refer to Web 3.0, a frequently celebrated future iteration of the internet. It's tough to characterize the metaverse. It is usually described as an online space where people socialize, work, and play with the representations of their identities (avatars).

A metaverse, in simple terms, blurs the distinction between real and virtual life. Using virtual and augmented reality headsets or glasses, you can enter and interact in this virtual world or place. For now, in 2022, the metaverse is a story way of telling about the future technical structure that may appear when you integrate virtual reality, augmented reality, high-speed internet connections, and others that you might have with other people.

Six distinct categories of reality and virtual reality have been presented by (Farshid et al., 2018) in their study. These are defined as reality, augmented reality, virtual reality, mixed reality, augmented virtuality, and virtuality.

**Reality:** Reality is defined as a real/actual world that we perceive with all our senses.

**Augmented Virtuality:** A subset of mixed reality known as augmented virtuality (AV) describes the blending of real-world objects into virtual realms.

**Virtuality:** An imaginary world that largely abides by real-world norms.

The main difference between virtual reality, augmented reality and mixed reality is explained in [Table 1](#).

As we speak, tech giants like Apple, Google, Microsoft, and Facebook are racing to claim the metaverse; a virtual universe to co-exist with the bodily one. Facebook has even changed its name to ‘Meta’ to stay on the pinnacle of the curve. For a lot of customers, it is probably an ideal place to spend time specifically at some stage during the pandemic time. For two years now, human contact has been a casualty, but, enters the metaverse with a promise to revolutionize our lives that has turned out to be an extension of the physical world. However, do we need it? Do we need an imaginary world controlled by way of tech giants? Will it make our lives better on the internet? Or will it control our perception of truth? These are the several questions that could get up whilst we communicate about metaverse.

## 1. What is the way beyond?

If we consider the metaverse as the upgraded version of the internet, we are not just looking at it, but, also living in it. Our digital avatar will inhabit the metaverse as opposed to studying or looking at a

Received 14 October 2022; revised 4 November 2022; accepted 31 October 2022.  
Available online 15 November 2022

\* Corresponding author.  
E-mail address: [saumya.awasthi@jaipuria.ac.in](mailto:saumya.awasthi@jaipuria.ac.in) (S. Awasthi).

<https://doi.org/10.57198/2583-4932.1305>

2583-4932/© 2022 The Authors. Published by Jaipuria Institute of Management. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

Table 1. Difference between virtual reality (VR), mixed reality (MR) and augmented reality (AR).

Parameters	Virtual Reality (VR)	Mixed Reality	Augmented Reality (AR)
Definition	A complete digital representation of the real world	A blend of physical and digital worlds	Enables us to view the world around us while also superimposing digital visuals on top of it.
Device	VR Headsets (HMDs)	AR Glasses/headsets	Mobile phones/tablets
Key concept	Gives the impression of presence and total immersion.	Adaptation of real-world situations	Increase in value of physical co-presence
Applications	E-commerce, Training applications, Games	Design, Education, manufacturing, military, Healthcare, Retail Commerce	E-commerce, Games & Entertainment, Maps, tourism
Challenges/Risks	Depersonalization, Cyber/motion sickness, accidents (e.g., tripping, hitting ceiling fans)	Privacy and security are the major concern	Lack of focus or impaired perception, privacy, and security, overload and stress

certain topic; we can be experiencing it, doing those actions digitally along with other people who want to be a part of its experience. Though the metaverse will not replace entirely the Internet, it will be seen by people as an important part of their digitally connected life (John, 2014).

Right here, the metaverse is cyberspace where reality meets creativeness. The characters will be real human beings but their world will be fictional, made up of virtual elements.

Facebook (Meta) CEO Zuckerberg anticipated his pitch for the metaverse. He said that the Metaverse will be the second exceptional thing to a teleportation device. Teleporting across the Metaverse will be like clicking on a link (Combs, 2021). This brings so many questions to our minds. How many virtual worlds will be there? Will there be one or numerous Metaverses? With so much research and improvements, it is discovered that there are different virtual worlds in the making.

Social networking is definitely altering how human resources are perceived. Although it brings related hazards, it is opening up previously untapped possibilities in a variety of human resource activities. Now, it's up to the organizations to specify their social media guidelines and build a platform that allows them to study individuals holistically rather than just relying on social media observations (Rashmi & Nijhawan, 2022).

## 2. Key components of metaverse

In the present time, since the metaverse is still in its early stages of development, neither academia nor business has a consensus on how it should be organized. The key layers of the metaverse cross the physical world with the virtual world. There is an intersection between these two worlds as shown in Fig. 1. The structure of these two intersecting circles corresponds to the three layers of the metaverse named Ecosystem, Interaction, and Infrastructure. The elements that make up a metaverse can be

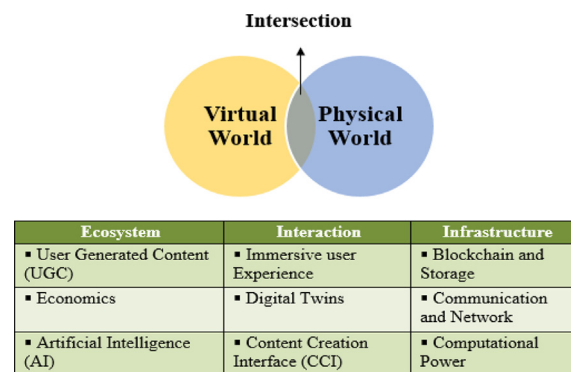


Fig. 1. Three layers of metaverse.

effectively embraced by the three-layer design that has been proposed (Arrotta, 2022).

## 3. Bigtech: metaverse stocks for the future of technology

Metaverse projects are blooming, and a few corporations are betting huge on it. Apple, for example, is working on an advanced virtual reality gadget that could revolutionize the experience of the metaverse. Google is said to be operating on a revolutionary augmented reality device which looks like Google is creating its own metaverse platform. Microsoft has also joined the queue of race and is creating a digital world called “Mesh”. In order to provide a realistic experience, Mesh is a fully realized virtual environment that can be accessed through a variety of devices (Team, 2022). This will incorporate virtual experience without delay into the Microsoft Teams. Microsoft along with the Activision Blizzard acquisition, the company will have in its kitty games like call of duty, Warcraft, candy crush, etc.

Disney is simultaneously in a queue of creating its own metaverse known as Disney Metaverse, which will be the extension of the films and streaming services provided by Disney.

Even governments are in the queue of the metaverse. In 2021, to promote the creation of national

digital and augmented reality platform and address the ethics of digital environments, South Korea has established a “metaverse alliance” of local businesses (Sharwood, 2021). But, what is the purpose of such an alliance? They will bring different virtual worlds under one umbrella. Barbados is moving fast ahead and planning to set up an embassy in the metaverse. Barbados, the tiny Caribbean island country, has determined to increase its diplomatic outreach by turning into the first use to establish a virtual embassy after an agreement with the metaverse platform Decentraland (Bhattacharjee, 2021).

In a study by Rajagopalan and Sarkar (2022), it is illustrated that there is a growing understanding that information technology is quickly becoming just as important as education, health care, etc. ICT is becoming more significant in development initiatives because it considerably improves human wellness by allowing economically and socially disadvantaged groups to exercise their freedom of choice.

So, nearly everything and everywhere is becoming the metaverse. It is no more an experiment by a few technicians, but, it is becoming an inevitable replacement for reality. With future potentialities and plenty of calls for innovations and research, the resistance and the denial of the metaverse will not be a good idea. Alternatively, humans should have the eagerness to know more about the discovery and operations of the metaverse. Questions like; does the metaverse ensure privacy? Is the metaverse really an inevitable space? How will be open source? What lines should be drawn? And peculiarly, we must focus on the fact, will metaverse be safe? Various crimes have been reported to the metaverse. As we are seeing the popularity of the metaverse that is climbing higher, the attention of the developers has started to gain momentum on the pros and the cons of it. This will help us in understanding whether the concept of the metaverse will be feasible in long run or not with some unavoidable concerns. One of the key concerns and risks to the development of the metaverse continues to be data privacy and information security challenges (Dwivedi et al., 2022). The requirement of advanced digital technologies has been on the top list of the cons related to the metaverse. Blockchain, haptics, virtual reality headsets, and other cutting-edge technology are just a few of the innovations that come with the metaverse (Misra & Shukla, 2020; Weston, 2022).

#### 4. Applications

Beginning with payments and ending with identity verification, the whole thing has long past digital. Consequently, a virtual world like the

metaverse has the potential to change how businesses and people view and use technology. Right here, we move over a few of its capacity applications.

(Dwivedi et al., 2022) in their paper described the applications of a metaverse into two categories. Both “metaverse as a tool” and “metaverse as a target” are categories for the uses of the metaverse. When the metaverse is used as a tool, it means that difficulties and issues in the real world are resolved. The term “metaverse as a target” describes how the metaverse itself may carry out tasks like expanding the metaverse and making money. Compared to the metaverse as a tool, target applications for the metaverse are independent and incredibly reliant on the virtual environment.

**Entertainment:** Metaverse has brought a new era to the field of entertainment. Gaming can be known as the first enjoyable road to go into the metaverse. The most obvious use of the metaverse in the entertainment industry is video games after all persistent digital spaces have been a mainstay in this industry for a long period of time. Some of the most important gaming corporations in the global like Roblox, Fortnite, and Grand Theft Auto (GTA) have already built their own virtual worlds with their own virtual economies, currencies, storylines, and characters.

The future is absolutely packed and brilliant for enthusiasts of metaverse games. Music concerts in the metaverse are termed virtual concerts. Anyone who has access to their laptops, personal computers, and AR/VR equipment can take advantage of the ability to see their favorite musicians perform in a virtual environment where everyone is represented by an avatar. The continuous evolution of the Metaverse will offer innumerable possibilities in the field of entertainment.

**Healthcare sector:** All the major tech companies are pushing towards making the metaverse a reality. The metaverse is promised to be a major tech disruption to our everyday lives. With the evolution of smartphones, all the major industries need to adapt to it which includes healthcare too. Breaking physical barriers is one of the biggest promises in the digital evolution of our medical professionals and their patients. The pandemic has shown us already how valuable it is that we don't have to go to overburdened hospitals and doctor's clinics for every single consultation. It will be one of the best uses of the metaverse in that visitors don't require a physical examination; it can be easily pushed to the metaverse.

Moreover, healthcare is more about privacy and safety than any other sector. Speaking further, the

metaverse will present particular difficulties for the healthcare sector, such as the need to protect patient confidentiality in the same manner that the Health Insurance Portability and Accountability Act (HIPAA) protects sensitive patient health information from being disclosed without the patient's knowledge or consent. Even in virtual reality, there has to be a sacred pillar when we create new healthcare products. Everything needs to be reconsidered and reinvented in this new world.

The biggest challenge for the healthcare industry in this new world of the metaverse is accessibility. Healthcare needs to be easy to access by the masses which is why the digital health focus is so much shifted on the point of care.

**Advanced Education:** Education institutions were forced to implement online systems and other digital communication methods as a result of the pandemic and laws prohibiting in-person gatherings. Regardless of their age, students will constantly select to sit and watch something as opposed to examine it. The advent of virtual reality is fascinating because it has the potential to create amazing experiences that are impossible to have in real life.

**Transformation in the Tourism Industry:** The pandemic certainly resulted in losses and setbacks for the travel industry, however, the capacity of virtual travel should result in the emergence of a brand-new tourist area of interest. Even when restrictions are lowered, the travel and tourism sector has made inroads into the digital world with the help of VR headsets, virtual reality tours, and 360-degree movies. The concept of 'TRY BEFORE YOU BUY' is the trend. Tourists can explore the locations before going there using virtual reality. Booking travel tickets and hotels have become a play-through virtual platform in the metaverse. Augmented reality will give an immersive destination experience.

Whilst its function is probably to expand within the future years, it's not going that metaverse tourism will ever update actual travel. It seems possible that the metaverse will enhance and supplement the conventional tour enterprise, providing new methods to interact with potential customers.

**Office Work:** According to Bill Gates' prediction on his blog, most virtual meetings would switch from 2D camera image grids to the metaverse, a 3D environment with digital avatars, within the next two to three years (Gates, 2021). Retaining verbal exchange with your team and productivity while operating remotely is one of the hardest obstacles. Each of these items may be aided via the metaverse. Much of the metaverse is still to be built.

The metaverse 1.0 will most likely see associations establishing relentless VR work environment conditions, in which representatives can collaborate progressively as embodied avatars. Korean Prop-Tech organization Zigbang has previously opened a 30-story VR office called Metapolis. Workers pick a symbol and explore their work areas through lifts and hallways. At the point when they meet a partner's symbol, their webcam and mic are enacted so they can have a discussion. The webcam and mic then switch off naturally as their symbol leaves (Gilbert, 2022).

**Real Estate:** The real estate metaverse is on its way to getting the coming big thing. It's fairly a new trend, a new world but in the coming period, it'll unleash myriad openings for investors which will be both instigative and satisfying. People are fascinated by the ever-changing world of real estate. Putting it in another way, it is equivalent to purchasing property on another planet where Earth's laws no longer apply. A large number of people are investing in various types of digital assets. By using blockchain technology people are gaining profits in this area. It refers to the networks of the computer that enables cryptocurrencies like bitcoin to function. Many cryptocurrencies allow users to buy and sell virtual properties. As a metaverse will expand, the value of the virtual property is expected to rise to a good level. This will give users a good chance to get on the ground floor of a new and exciting industrial platform.

In truth, the world is becoming ready for the metaverse to happen, as shown by the numerous top examples of the metaverse. Examples of the metaverse in the real world demonstrate how the concept can be practically transferred from the page to the actual world.

## 5. Challenges

A number of security issues and metaverse dangers are listed in this article for business and IT leaders to address (Table 2). Misinformation has already made its way to social media and the metaverse. It will be more difficult to control virtual worlds than to control social networks (Mishra & Samu, 2021). Additionally, technological problems will need to be resolved. For these and other reasons, the most important metaverse use cases fall into an uncertain order. According to the Centre for countering digital hate research, a violent incident occurs every 7 min in a very popular virtual reality world called VR chat (Ahmed, 2022, pp. 1–31). This makes the situation more problematic as virtual reality takes us into a digital environment, where,



Table 2. Challenges faced in various sectors of industry.

Sector	Challenges/Risks
Identity of Individuals	<ul style="list-style-type: none"> <li>• Replacement of usernames and login credentials with 'Enhanced digital avatars'</li> <li>• Avatars will represent real human beings in the digital world</li> <li>• It will encapsulate the entire personal information including the financial and sensitive data</li> </ul>
Laws and Regulations	<ul style="list-style-type: none"> <li>• Since the start of the metaverse, antitrust has been wrestling with existential questions.</li> <li>• Prevention and protection against abuse</li> <li>• The regulation of digital assets, such as NFTs, may be governed by established financial regulatory frameworks, such as securities, banking, money transfer, and commodities legislation.</li> <li>• Law enforcement would be difficult because there would be no way for authorities to hold anyone accountable for their crimes committed in the metaverse due to the fact that such domains would not be covered by or subject to the same laws.</li> </ul>
Data Privacy and Security	<ul style="list-style-type: none"> <li>• Collection, use, and transmission of data are of major concern</li> <li>• Metaverse account will have much more information than on other social media accounts with access to entire digital life, financial and other secured information</li> <li>• Both privacy and cyber security have legal repercussions, as well as other repercussions, such as in terms of governance.</li> </ul>
Intellectual Property	<ul style="list-style-type: none"> <li>• Ambiguity of ownership in the metaverse</li> <li>• Transparency of the factors that create artificial scarcity to help people comprehend the boundaries that make up the Metaverse.</li> <li>• Creating a centralized system that might be used to verify who owns virtual assets in the Metaverse.</li> <li>• Proper understanding of the licensing boundaries and usage rights should be there for content owners</li> </ul>
Threat concerns related to technology	<ul style="list-style-type: none"> <li>• Blockchain technology significantly increases security because no single user is allowed to exchange data on a blockchain without the agreement of other users.</li> <li>• Crypto assets in the metaverse could lead to systematic risk</li> <li>• Proprietors of an NFT may additionally over-hype an asset to inflate the value, only to cash out. The other collectors will suffer from the subsequent decline in value.</li> </ul>
Societal challenges	<ul style="list-style-type: none"> <li>• Concerns are more inclined towards children. For most of tech companies, the targeted audience for the metaverse is kids and teenagers who are majorly on the internet. Studies have proven that the impact of metaverse on children is much more than on any other audience.</li> <li>• Video games are becoming pathological and affecting family lives. There may be additionally worried that exposure to excessive violence in video games may also desensitize teens and young adults to such violence, producing emotional difficulties and possibly leading to young human beings appearing violent acts.</li> </ul>

the slight touch and the sensory experience in the virtual world are high-tech and exaggerated to give us an immersive experience. Therefore, every crime happening in this virtual world would be much more real and way beyond intense. These demerits tend to be magnified once the metaverse will expand. Several concerns are still not answered by the technicians, like, how privacy and safety will be ensured for the digital avatars.

If a metaverse platform fails fully, all the land and the assets will vanish from it. This is a significant risk that should be considered before investing in digital real estate. Ongoing scams are another significant risk. It has become an easy task to create fake and duplicate virtual assets that exactly seem like the real thing in the metaverse. It is difficult to conduct research and purchase assets only from reputable sources.

## 6. Conclusion: yet to be imagined

To summarize, the metaverse is still in its infancy but shows great promise to the world. Metaverse is still a young industry that is far from sustainable and contains risks. But, to defend ourselves from

feasible risks, we need to hold with warning and deliberation, waiting for challenges that can damage us. We are relying on technologies to fill the void. Those who are willing to take the risk may be richly rewarded. The metaverse guarantees to offer people a second life of source in an online world wherein they can meet, play, and shop, celebrate, and even build a residence if they want to. But, remember, none of it will be actual. It is all made to escape the truth, and forget the unique elements of life. Holograms cannot replace human relationships. The sensory experiences through the metaverse cannot replace real emotions. The metaverse can by no means be a second existence; instead, it will be an imprisoned reality.

## Conflict of interest

No conflict of interest.

## References

- Ahmed, I. (2022). *Center for countering digital Hate.Facebook's metaverse* (pp. 1–31). Center for Countering Digital Hate (CCDH). <https://counterhate.com/research/facebooks-metaverse/>.

- Arrotta, L. (2022). *Researchers from China analyzed open challenges about the metaverse and proposed a blockchain-based three-layer architecture to connect the physical and the virtual worlds*. MarkTechPost. <https://www.marktechpost.com/2022/02/13/researchers-from-china-analyzed-open-challenges-about-the-metaverse-and-proposed-a-blockchain-based-three-layer-architecture-to-connect-the-physical-and-the-virtual-worlds/>.
- Bhattacharjee, S. (2021). *Barbados will have a virtual embassy in the metaverse*. Gadgets 360. <https://gadgets360.com/cryptocurrency/news/barbados-virtual-embassy-metaverse-decentraland-vr-2613124>.
- Combs, V. (2021). *Meta CEO Zuckerberg predicts the metaverse will be mainstream in 5-10 years*. TechRepublic. <https://www.techrepublic.com/article/meta-ceo-zuckerberg-predicts-the-metaverse-will-be-mainstream-in-5-10-years/>.
- Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., Dennehy, D., et al. (2022). *Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice, and policy*. *International Journal of Information Management*, 66. <https://doi.org/10.1016/j.ijinfomgt.2022.102542/>
- Farshid, M., Paschen, J., Eriksson, T., & Kietzmann, J. (2018). *Go boldly! Explore augmented reality (AR), virtual reality (VR), and mixed reality (MR) for business*. *Business Horizons*, 61(5), 657–663. <https://doi.org/10.1016/j.bushor.2018.05.009/>
- Gates, B. (2021). *Reasons for optimism after a difficult year*. *Gate-snotes.com* <https://www.gatesnotes.com/About-Bill-Gates/Year-in-Review-2021/>.
- Gilbert, S. T. C. (2022). *Work from...where exactly? What office life in the metaverse could look like?* *Scroll.in.* <https://scroll.in/article/1025343/work-from-where-exactly-what-office-life-in-metaverse-could-look-like/>.
- John, S. (2014). *A metaverse roadmap: Pathways to the 3D Web, 2007*. [https://www.academia.edu/266307/A\\_Metaverse\\_Roadmap\\_Pathways\\_to\\_the\\_3D\\_Web\\_2007](https://www.academia.edu/266307/A_Metaverse_Roadmap_Pathways_to_the_3D_Web_2007).
- Mishra, A., & Samu, S. (2021). *Impact of fake news on social image perceptions and consumer behavioral intentions*. *Journal of Consumer Marketing*, 38(6), 601–613. <https://www.emerald.com/insight/0736-3761.htm>.
- Mishra, A., & Shukla, A. (2020). *Psychological determinants of consumer's usage, satisfaction, and word-of-mouth recommendations toward smart voice assistants*. In *An International working conference on transfer and diffusion of IT* (pp. 274–283). Springer, Cham. <https://www.researchgate.net/publication/347642535>.
- Rajagopalan, R., & Sarkar, R. (2022). *IT, social capital and the digital Ecosystem: A new approach to online content Co-creation*. *Management Dynamics*, 8(1), 41–56. <https://managementdynamics.researchcommons.org/journal/vol8/iss1/4/>.
- Rashmi, & Nijhawan, G. (2022). *Social media impacts on personnel competence and capability building systems*. *Management Dynamics*, 15(1), 30–37. <https://managementdynamics.researchcommons.org/journal/vol15/iss1/1/>.
- Sharwood, S. (2021). *South Korea creates 'metaverse alliance' to build an open national VR platform*. [https://www.theregister.com/2021/05/18/south\\_korea\\_metaverse\\_alliance/](https://www.theregister.com/2021/05/18/south_korea_metaverse_alliance/).
- Team, U. (2022). *What is Mesh for teams? Microsoft's metaverse for collaboration takes shape*. *UC Today*. <https://www.uctoday.com/collaboration/what-is-mesh-for-teams-microsofts-metaverse-for-collaboration-takes-shape/>.
- Weston, G. (2022). *The pros & cons of metaverse*. *101 blockchains*. <https://101blockchains.com/pros-cons-of-metaverse/>.