

Metaverse [UPSC Notes]

Metaverse is a concept that is frequently in the news nowadays. It is an important development in the science and technology domain and it also has implications for various aspects of life and polity. Hence, it is an important topic for the [UPSC exam](#). In this article, you can learn all about the metaverse.

What is Metaverse?

Metaverse is a scientific domain in which people are **virtually transported to another world** where they can interact with each other. All this can be done with people sitting in their rooms. In other words, a metaverse is a virtual world which offers an opportunity for an individual to **experience a different world altogether**. An analogy can be seen in the movie 'Avatar' where characters are transported to a different world.

Differences between the Internet and the Metaverse

The internet is nothing but the connection of millions and billions of computers with each other. It is a **mechanism through which people establish connections** with each other.

- Metaverse on the other hand does not compete with the internet, but it is built over the internet. Metaverse **imitates the prospects of the physical world** using high-end technology like AR (augmented reality), VR (virtual reality), etc.
- In other words, the internet is used by people for the purpose of **browsing and collecting information** but the **metaverse is something where people 'live'**.

Use cases of metaverse:

- **Gaming industry:** The metaverse is said to revolutionise the gaming industry in the world. It will allow the player to interact with each other in a simulated environment. It will enhance the user experience and provide them with a long-lasting experience. The Sandbox, Sorare and Axie Infinity are some examples of gaming sectors operating in the metaverse.
- **Travel and tourism:** Metaverse can be used for enhancing the tourism experience of travellers. Before actually visiting the places, travellers can experience such landscapes over the metaverse. It will provide beforehand challenges to the travellers and thereby enable them to make their own decisions. It will also enable the traveller to undertake a 360-degree overview of the region.
- **Education and learning:** With the help of the metaverse students' learning experience can be enhanced to another level. It will enable the teachers to present a graphical representation of subjects and **teach through various audio-visual components**. It will also help in expanding the retaining capacity of the children.
- **Health facilities:** Metaverse can greatly help in reducing the cost of healthcare and expanding its coverage. Telemedicine which is one of the most important components of healthcare facilities

can be greatly supplemented by metaverse. It can enable doctors and patients to interact over 3D clinics.

- **Banking and finance:** Metaverse would help in offering the advantages of modern technology like blockchain, [cryptocurrency](#), DiFi, etc. At the same time, it would also help in providing a 360-degree experience of the physical branch. It will make the banking experience more personalised and convenient.
- **Social media and entertainment:** Metaverse can be applied in sectors like e-commerce, fashion and many others. Trials of clothing and sportswear can be done over the internet without the need to actually visit the physical outlets. It will thus reduce both time and cost and reduce environmental pollution.

Metaverse Challenges

Some of the challenges and concerns associated with the metaverse are as under.

- Metaverse is an **evolving technology which is in its nascent stage of development**. Therefore, a lot of investment is required to be made here before extracting the benefits of this technology.
- The development of the metaverse is premised upon **much physical hardware**. Therefore, India needs to ramp up its electronic manufacturing capacity in order to realise the true advantage of this technology.
- Metaverse is used in many entertainment and related activities which has a **direct impact on our brains**. Thus, the most likely adverse impact of this technology is addiction and many health-related issues like weak eyesight, etc.
- Issues related to **privacy** and the establishment of monopoly by big companies is another challenge of this technology.

Conclusion: Metaverse is an evolving technology and provides scope for the creation of high-end jobs for people. Therefore, looking into the scope of the technology and its future impact it is necessary to ensure that all policies and measures are aligned to support this technology. It is equally important to ensure that the government comes out with a measure to encourage investment in this technology. At the same time, all checks must be put in place in the form of laws and regulations to ensure that this evolving technology is not misused.