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Will the metaverse be the new frontier of e-learning?

The metaverse is considered the next frontier of technology. But what exactly is it and how can it change the way we learn and approach the world around us?

We have already talked about the **Metaverse and online training** in a previous article.

What is the Metaverse?

The metaverse is defined online as "a virtual reality space in which users can interact with a computer-generated environment and other users".
The term metaverse refers to a **digital world**, interconnected and separate from the real world. However, there is more to it than that: it can be said to be a '**hybrid**' between the real and digital world as digital objects represent real objects such as people, places and situations. To have a more concrete example, one only has to think that those who play video games with the use of 3D technologies have a kind of experience that is close to that of the metaverse. They use avatars or characters that represent themselves and can interact with their surroundings through the characters.

It is clear that the application of this technology can be extremely versatile and it would certainly not be a flight of fancy to think of its application in the world of e-learning. Learning has to open people's minds to make room for new ideas, thoughts and notions. The metaverse would make it possible to do all this by going beyond the boundaries dictated by the physical limits of our bodies, creating immersive realities that offer **new learning paradigms**.

If you think about it carefully this could be a **revolution** for the world of education. Man has always been limited by his physicality. The metaverse allows us to go beyond that and combine the advantages of physical classrooms, self-paced learning and virtual learning in a single platform. This new technology would therefore allow students to have real experiences in a digital reality, bridging the gap between a physical and a virtual experience.

What are the key factors for the adoption of the metaverse?

One of the key drivers for the metaverse to become an established reality in education is the ability to offer a **virtual and immersive teaching model**.

There is a lot of research and studies that testify to the enormous impact of **virtual reality** in the world of contemporary **education**. The world is increasingly interconnected and now resembles a global workplace and learning environment, where employees and students virtually cross geographical boundaries several times a day to interact with colleagues. Virtual reality-based solutions are becoming increasingly popular precisely because of their ability to interconnect people around the world and bring them to the same virtual place. As virtual reality is a technology on which the metaverse is based, many believe that the spread of the metaverse will be facilitated by the popularity of virtual reality. Training opportunities based on the metaverse would therefore shape the way employers and educators universally train the global workforce and students around the world.

Another key factor that is likely to help the spread of the metaverse is the post-pandemic popularity of **hybrid workplaces**. The popularity of the remote workplace has meant that immersive virtual learning has become more important. Although time and distance separate hybrid workforces, the combination of the metaverse and training will help create more real, interactive, hands-on, face-to-face education that is accessible to all while avoiding geographical limitations.

Another key factor in the popularity of the metaverse is the need for educators to offer **higher quality digital training experiences**. Many companies and educational institutions are faced with the problem of delivering quality training in an increasingly decentralised business and academic environment. To keep students and employees working remotely engaged and motivated for training, companies are increasingly adopting virtual and immersive solutions.

Advantages

Since it brings virtual and simulated experiences closer to those of real life, the metaverse can be widely exploited for training.

- It offers learners more real-life experiences than the current training offered by virtual reality tools.
- Offers a safe and more convenient alternative to **practice and fail** during learning.
- For those who work or study remotely, the metaverse will act as a **meeting point** for people, processes and situations. The interactions of the metaverse will help, for example, to bridge gaps such as locations and time zones.
- The immersive experience will **bridge learning and play** and help learners learn more easily than with traditional or virtual reality-based training.
- Superior display quality, **more engaging content** delivery and **increased interactivity** will ensure that remote employees and learners benefit from learning on demand and **learning in the workflow** (**LIFOW**).

Studies have shown that VR-based training works **four times faster**, and they are **275%** more confident in applying the skills they learn after training. With so much evidence pointing to the benefits of virtual reality, it's no surprise that the metaverse and its associated collaborative and immersive training delivery methods are viewed with great interest by those in the training world. In fact, almost every aspect of training will benefit from the metaverse, from instructional delivery to testing, assessment, feedback and other forms of learner-educator interaction.

Where does the e-learning industry stand?

The metaverse is a new technology, which will only become available to the public between now and 2024, but its popularity and the investment this technology has attracted in recent years suggest that it will become an extremely popular technology. As this technology is not yet on the market, today's research and studies refer to an exploratory phase in which we can only imagine, based on previous research and studies, how this technology will change the world of education.

In the short term, it is expected that companies and training institutions will adopt a "wait, watch and learn" approach to the application of the metaverse. There are already realities that adopt 100% digital training and there will be many experiments aimed at developing new solutions and adapting them to the needs of students. At the end of this period, when and if the technology of the metaverse matures and becomes established, e-learning based on the metaverse will become mainstream.

Which methods will become mainstream because of the metaverse?

There will certainly be new discoveries in the future due to the application of the metaverse in learning. To date, based on studies and research in this field, the metaverse applied to education will promote **immersive learning**, enhance the experience of "**social learning**" and foster the creation of **new learning ecosystems**.

Immersive learning
Immersive learning will change dramatically with the metaverse, here are some of the changes that scholars agree on.

- Learners will move away from video, audio, and static eLearning based on digital presentations to **more immersive** content based on virtual reality tools.
- The big problem of "engaging" remote learners and employees will be answered through gamified content based on the metaverse. **Gamified VR** and gamified **micro-learning** will be two areas that will experience **great development**.
- High digital quality and increased engagement will make it possible to offer simulated experiences more and more similar to real life, making virtual simulations more and more attractive to training organisations.

Social learning
Social media platforms are already a benchmark as an effective way of eLearning. Metaverse is expected to accentuate and transform **learning on social media** by offering the possibility of integrating more engaging content and greater interactivity within platforms where learning takes place among peers.

Learning ecosystems
The combination of metaverse and learning will lead to a spread of **learning hubs** that will bring about the emergence of new training support tools and the creation of **personalised learning** pathways may have more scope.

An example of learning in the metaverse

Given that this is a technology that is not publicly available at the moment, it is not easy to imagine what a learning experience with the metaverse might look like.

In this section, we offer an example of how learning will be implemented in the metaverse.

- Users access the Metaverse platform.
- They create their avatars.
- The programme is divided into a daily schedule, with each day offering its own experiences that correspond to actions similar to those usually carried out in person.
- The platform offers the possibility to interact with peers in real time and move around in a virtual environment that is a representation of the office and its various sections.
- It is possible to conduct self-paced training by entering a room that houses various resources accessible to users.
- You can go to break rooms and interact with colleagues, all in a virtual environment with the possibility of leaving and entering.
- You can perform group activities and practice scenarios that you might face in your real job and, in the process, receive feedback from managers.

Other real-world applications from the combination of the metaverse and learning could be virtual meetings so that geographically dispersed teams can participate in live teaching and learning. Other opportunities also arise in the certification of competences and further education.

Obviously this is a general example, each company and training institution has its own teaching methods and values, so there will be differences from case to case.

Conclusion

There is no doubt that companies and training institutions are watching closely the evolution of e-Learning through the metaverse. The incorporation of cutting-edge technologies such as virtual reality to simulate immersive learning scenarios convinces the training world that it seems to be getting closer and closer to its adoption. Although eLearning based on the metaverse is still in an exploratory phase, learning-centred organisations need to start evaluating its use now, especially for remote and hybrid learners and workers.

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