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ARTICLES

Applications of the Metaverse in Finance Industry

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The metaverse is a new form of technology that is creeping into all aspects of society–social, academic, business, and finance. This new form of artificial intelligence allows for face-to-face interactions, only the face is not made of flesh and blood, and the meeting place is not of this world but in the metaverse. Social media platforms and gaming companies have taken the lead by incorporating virtual reality with the use of headsets that immerse people into the metaverse. Using the metaverse to play games or socialize seems harmless, however, the business and financial world are moving towards using this platform for purchases of art, property, and assets by using global currency such as crypto coin. If this becomes the new way of doing business, will it be the end of real life, social interactions, and contemporary relationships? And how safe is it to make transactions through the metaverse in a global economy? Research on this new technology is too new to determine if it is the next best thing or the downfall of the world as we know it. This paper aims to introduce an emerging technology, metaverse, and future uses of the metaverse in the finance industry.

Introduction

Technology is the world's greatest invention in today's society. It is accurate to assume that almost every functioning human on earth relies on technology for work, games, communication, or even all three. In recent years, the topic of how much the Internet knows about you has been a question. Where is all of my personal information going? How much and who exactly knows what we think is private? Overall, it is not crazy to assume that nothing is really private, and people want a closer look at the technology we use on a day-to-day basis. This leads to the introduction of the metaverse. The metaverse is a widely unknown and complex subject. The metaverse refers to a shared, decentralized, and digital space that exists beyond the real world. It can be experienced through virtual reality (VR) or augmented reality (AR) (Ravenscraft, 2022). It is a place where people can exist in digital form, similar to how we already exist as physical beings. We can design the environment of the metaverse by ourselves, so it will be unique to each person who visits

a Mentors: Dr. Erin McLaughlin, Cabrini University; Dr. Seong Yoon, Edward Waters University it. Therefore, it is important to start from the beginning and get a grasp of the idea of the metaverse as well as its future effects on business, social, and financial interactions.

The metaverse has already been used in a variety of areas. It has been used in education to immerse students in a lesson where they are not just reading or looking at pictures, but are transported to a three-dimensional (3D) forum where they are in the middle of the lesson. They can stand inside Independence Hall or on the floor of Wall Street. The business world is incorporating metaverse as a sales strategy where consumers can enter a shared virtual space to view anything from real estate to automobiles to clothing and make purchases with digital currency, known as cryptocurrency. Will the ease of the metaverse replace physical contact or currency and how much will it affect our future? This research aims to introduce an emerging technology, metaverse, and future uses of the metaverse in the finance industry. Specifically, aside from how virtual work-life is made easier through technology, what does this mean for the people using the metaverse as a source of employment? Will people have jobs in these metaverse worlds to make money?

The History and the Contemporary Usage of the Metaverse

The concept of the metaverse has been around for decades, but I has recently gained renewed attention with the rise of virtual reality and blockchain technology. The metaverse is a virtual world that allows people to interact with each other and the environment in a way that mimics the real world. It is an immersive experience that combines elements of gaming, social media, and commerce.

According to Marr (2022), “the metaverse started back in 1838 when scientist Sir Charles Wheatstone outlined the concept of ‘binocular vision,’ where you combine two images—one for each eye—to make a single 3D image. This concept led to the development of stereoscopes, a technology where you see the illusion of depth to create an image.” This concept led to the creation of modern virtual reality (VR) headsets. In 1992, Neal Stephenson, the author of the science fiction novel Snow Crash, coined the term “metaverse.” In the book, the metaverse was a virtual reality space where people could interact with each other and engage in various activities. The metaverse was a reflection of the real world. Starting from the imagination of science fiction novels, this demonstrates how technology has significantly advanced from 1838 to today. Technology in today’s world has grown faster than ever before, and we now have a wide variety of different VR, Augmented Reality (AR), and Extended reality (XR). Social media company Facebook, which recognized the potential of the metaverse, purchased Oculus VR in 2014 for $2 billion US dollars. At that time, Facebook founder Mark Zuckerberg wanted to support more games for users using the Oculus platform through the cooperation of Facebook and Oculus. Today, the company has developed various educational software and games, for example, teaching medical experiences and simulating industrial equipment to help trainees practice without the direct operation of physical equipment. Also, in 2014 – a busy year for XR – Sony and Samsung announced they were creating their own VR headsets, and Google released its first Cardboard device and Google Glass AR glasses. Google's Cardboard device is a low-cost cardboard VR viewer for smartphones (Marr, 2022). In other words, rather than a person using the Internet, VR devices will become a part of it, which is accessed through virtual reality.

This question puts the research into reality: in our daily lives, where do we see the metaverse today? Many college students tend to think of metaverse VR headsets, video games, and interactions with human characters within technology. For example, the Minecraft video game gives you a customizable avatar and the ability to load it into a virtual world with trees, mountains, lakes, caves, and animals. How does this relate to the metaverse? It is software that allows you to create a virtual world and how the characters look and move around. You can walk around, build shelters, hunt animals and go mining for gold, iron, diamonds, and more. This virtual reality could be interesting to a person who enjoys the outdoors and hunting. Therefore, the game can immerse you in the game where you feel active in those situations. Other software within the metaverse allows a person's face to be scanned, and then a virtual look-alike character is created to walk around in a virtual reality. Using software like this will advance the metaverse and make it seem as realistic as possible.

In the last three years, students have completed college years with a lot of virtual coursework. Given the circumstances of the COVID-19 outbreak in 2020, we were forced to use technology like Zoom and Collaborate in order to meet "face-to-face." We also used virtual PowerPoint presentations and textbooks to learn material. Because of this need, now both professional and educational technology has merged and made virtual work and school the new normal. The metaverse has opened a new window for working professionals and students to do just about everything right from the palm of their hand. Education is one crucial field for society and economy where core implementation methods remain unchanged and orbiting around content transmission, classrooms and textbooks despite numerous technological innovations (Friesen, 2017). However, thanks to the metaverse, both teachers and students can meet regardless of their real-world location. Not only can teachers talk about their discoveries, but they can also show students in an immersive 3D environment at any point. No longer will inquiring children have to sit bored in a sterile classroom. Instead, they can get excited about learning, thanks to the power of virtual worlds (Admin, n.d.).

Metaverse and the Financial Industry

According to the McKinsey management consulting firm, the metaverse is predicted to become a five trillion-dollar industry by 2023. It is slated to become the next big player in the financial world not only because of how easy it is to complete transactions but also because it is "safer" than the Internet (Birch, 2022). The metaverse has equally affected the financial world.

As we see today, we can buy, trade, and sell stocks with the click of a button. In less than thirty seconds, we can send and receive money through apps like Zelle, Venmo, and PayPal. These easy ways to make financial transactions are going to be the future of business. Aside from how virtual work-life is made easier through technology, what does this mean for the people using the metaverse as a source of employment? Will people have jobs in the metaverse to make money? Cryptocurrencies are booming right now in the stock market. Examples of this would be the commonly used Bitcoin or Dogecoin, the two most popular cryptocurrencies out on the market right now. In comparison to the physical currencies that we use every day, such as the U.S. dollar, euro, and British pound, crypto is a digital currency. However, to have secure transactions, crypto uses an online ledger, and it works based on the already-known technology: blockchain (Dren, 2022). Cryptocurrency is said to be the future of payments in America because of the high demand for it as we speak.

In the metaverse, crypto is set to play a significant role, as decentralization enables individuals to possess digital assets through cryptocurrencies. The advantages of using cryptocurrency, such as the ability to conduct speedy and secure transactions, serve as a catalyst for greater engagement with them in daily life. In the metaverse, crypto is set to play a significant role, as decentralization enables individuals to possess digital assets through cryptocurrencies. Consequently, the use of cryptocurrencies is no longer an option but rather an essential requirement that significantly impacts critical aspects of the metaverse, such as speed, transparency, and security. Ultimately, cryptocurrencies offer the ideal solution for leveraging this rapidly emerging virtual world. (Dren, 2022). Crypto is the easiest, safest, and quickest way to pay for things in this new world, and it is all thanks to the steadily evolving metaverse.

Is the Metaverse the Next Financial Revolution?

A relatively new and popular way to make money is buying and selling non-fungible tokens (NFTs). Non-fungible tokens (NFTs) are a type of cryptocurrency that hold things like art, music, and tickets instead of money. People who invest in NFTs believe they can create a virtual world where we can interact with each other in many ways, like visiting buildings, attending events, and buying stuff. Metaverse is like a shared virtual world where you can trade things like avatars, buildings, and land using cryptocurrency. So, in the metaverse, you can create, buy, and see NFT art in a fantastic way (Metaverseio, 2021). We can see a new way of buying and selling cryptocurrency in the near future.

The metaverse is a big deal, and the fintech world should be formulating its own strategies to bring embedded finance to virtual worlds (Birch, 2022). As mentioned previously, the metaverse can allow people to make purchases using cryptocurrency. The metaverse is safer than the Internet since the metaverse has a security platform built in that allows you to exchange assets and establish ownership of those assets (Nakamoto, 2008). If the metaverse is in fact, much safer than the Internet, then the next step for the financial world will be to incorporate the metaverse as part of financial institutions' portfolio of asset services. It seems like an obvious move in our quickly changing technological society. Birch (2022) argues that "a spectrum of metaverses with distinct and attractive features can be created by integrating novel virtual worlds with ownable digital objects.

Similar to the Internet, these virtual worlds will unite individuals, but this this time, it will be done securely. How can the metaverse be used for businesses? For simple example, a landscaping company could use VR technology to showcase work to people, display layout and design, or to even set up appointments with future clientele. The software allows us to take a picture of gardens and insert certain plants, trees, and shrubs to give the client a real-life look at how we could transform their outdoor living space. It is time-saving and a great marketing tool. From the video game Minecraft to landscaping, we could use the metaverse to assist business people with working in landscaping as technology keeps advancing.

Conclusion

This research may appear to be futuristic, confusing, and overwhelming as the idea of the metaverse is relatively new. It is hard to understand just how vast the Internet and metaverse technology can be, and this is only the beginning. The thought of the metaverse is complex, but it is definite. All aspects affect one another at the same time. For example, when one aspect, technology, business, socialization, or finance improves, the rest of the aspects improve as well. When the metaverse was released the first time, it seemed to be just another form of social media like Facebook, but people soon found out how much bigger the metaverse really is. Another aspect of going along with this idea of complexity and confusion is that the younger generation spends too much time on their phone, which is changing how they do things in the real world. With growing technology, humans will lose the valuable people skills of knowing how to interact with people face-to-face. In addition, they may have difficulty differentiating between real and virtual relationships. However, the positive coming from this technology is that the world could become more connected. You would be able to meet new people from all over the world who have diverse backgrounds, making us more united and a global community. It would be interesting to see how the metaverse will continue to change the business world and how it will directly affect people and the infinite world around people in the education, business, medical, or finance industry.

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