

HOW TECHNOLOGY IS CHANGING THE FUTURE OF SOCIETY

Samidannat ANDRIUȚA

Department of Microelectronics and Biomedical Engineering, MN-221, Faculty of Computers, Informatics and Microelectronics, Technical University of Moldova, Chișinău, Moldova

Corresponding author: Samidannat Andriuța, email: samidannat.andriuta@mib.utm.md

Coordinator: Ala PUȘCAȘU, university assistant, Department of Foreign Languages, TUM

Abstract: *The article discusses the trend of digitalizing everything, from cryptocurrency and NFTs to the potential benefits of the Metaverse, such as immersive learning experiences and increased productivity, but also highlights concerns over privacy, low self-esteem, and cyberbullying. It also addresses the current state of artificial intelligence (AI) and its potential applications, while acknowledging that we are still in the early stages of progress, but it has the potential to revolutionize every industry and aspect of daily life, with particular benefits in education and healthcare.*

Keywords: *metaverse, blockchain, virtual reality, education, artificial intelligence*

Introduction

If 10 years ago everyone was busy smartifying phones, watches, home appliances, or cars, by putting a microprocessor in them, and turning everything into computers, now all the hype has turned towards the human interaction with the virtual world, which aims to digitalize everything. We have already seen digital money (cryptocurrency), digital assets, or art (NFT) in action, and their impact towards economy, big tech companies are trying to adapt to the changes and integrate their existing products into the virtual world. Also, we cannot forget the most popular term discussed this year, Artificial Intelligence, which is associated by many as a new era, that will represent a radical change in every aspect of society.

The Metaverse

Let us start things off by mentioning Web 3, which is a concept of the next generation of the web, in which most users will be connected via a decentralized network with blockchain technologies, and token-based economics and have access to their data. One major vision of what the next iteration of social media might look like is the Metaverse, an internet that you are not just looking at through a screen, but actually experiencing your favorite online activities, engaging with other people, and feeling their presence. It promises a virtual universe in which you will be able to live your dream life, teleporting from one place to another in a matter of seconds. You will also be able to choose who you are and experience anything you want in an environment that feels real, all while being certain that your physical body is safe at home. You will be able to express yourself by creating an avatar that perfectly describes your personality or your dream look. Moreover, you will own assets like original art pieces, such as NFTs that you can display in your virtual house, which will be validated through blockchain technologies.

Learning will benefit from this as well. You will be able to travel anywhere, during any time period, and instead of learning history or geography by reading, you will be able to live in that space and get the full experience. In addition, you will have the opportunity to interact with basically anything, from studying the human body, or any other organism, to the moon, planets, stars or even shrink to the atomic level and understand how chemistry works. What's more, humans will become more productive by using electromyographic input devices, that intercept the nerve signals and you will be able to write messages without even moving your fingers.

But just like many other things, Metaverse has its disadvantages. If you are concerned about companies tracking your data now, then you will definitely be worried about your privacy when most of your life becomes digital and essentially all your activities are done in a universe that is controlled by a company. Social media already uses algorithms that analyze your preferences and only shows you what you like. By doing this in the Metaverse, where you will live a perfect life in a dream body, returning to the real world will feel terrible, so the number of people suffering from low self-esteem and anxiety will skyrocket, and cyberbullying will be on another level, having to confront that person in what will feel like the real world.

The Metaverse will not just be a classic platform launch, that appears one moment, it is a transition process from the classic internet that will probably take a few years. All we have to do now is implement a set of rules that will protect us from the potential harm that it brings to us, apart from the unlimited opportunities.



Figure 1. Interacting with planets in the Metaverse

Artificial Intelligence

AI is transforming our world with its ability to analyze data and make intelligent decisions. It has the potential to revolutionize every industry and aspect of our daily lives. Let's explore the current state of AI, its potential applications, and its challenges and opportunities for society. The adoption of beneficial new technologies typically follows a sigmoid-shaped curve. Initially, progress is gradual as the technology is developed and significant issues are resolved. Afterwards, there is a remarkable surge in growth as users discover its usefulness, the technology improves continuously, and numerous competitors enter the market. As people discover more practical applications for the technology, there is a significant push to develop newer, better, and more advanced products. Eventually, progress slows down again as the technology reaches its limits. We cannot say exactly where we are on that curve, it only becomes clear when it reaches the next level. When talking about AI, we believe we're still at the bottom, just starting to make progress. All AI does now is "connect the dots", that are already there. We haven't yet reached the stage where it creates new things and make connections between them.

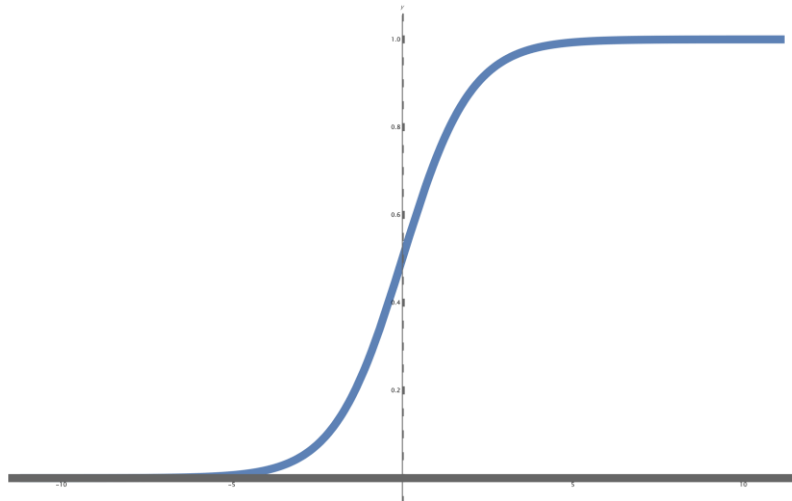


Figure 2. Sigmoid Curve

For the time being, it connects the things that already exist. This is still a good thing, because it accelerates the current progress and we can look at the internet as a gigantic graph with loads of points, which represent the data, and these points aren't linked together. So much information is already present and public, it's just not correlated. Sometimes when you find a very interesting topic, you feel like you want to assimilate all the present information about it. Well, in simple terms, that's how machine learning works, an algorithm "swallows" all the available data and gets better by creating more connections between it. Now what everyone is waiting for, are massive breakthroughs, innovations, and knowledge brought to us by artificial intelligence. We expect this to happen in the foreseeable future, as it gets more widespread and progresses. Some important areas that can benefit from AI assistance are education and healthcare. Just imagine if it could solve problems such as untreatable diseases by analyzing all the data or finding ways to prolong our lifespan.

One major risk is that once it advances, the army will probably try to militarize it, just like it has done with chemicals, explosives, or computers. And a missile that thinks poses a great danger, because it will always hit the target. If autonomous weapons become a thing, an AI arms race is inevitable and a new cold war will start.

Conclusion

After researching and analyzing the metaverse and AI, I have concluded that the future of society will likely be shaped by AI and the metaverse. It is not a question of "will this happen?" but "how soon until this becomes the new normal?". While there are controversies and potential negative consequences associated with these technologies, their benefits outweigh the risks. The pace of progress is likely to continue, with new breakthroughs and innovations in AI and the metaverse anticipated in the foreseeable future.

References

1. Meta YouTube. Available: <https://www.youtube.com/watch?v=Uvufun6xer8>
2. Meta. Available: <https://about.meta.com/metaverse/>
3. Built in. Available: <https://builtin.com/artificial-intelligence/risks-of-artificial-intelligence>
4. Medium. Available: <https://medium.com/geekculture/the-mass-adoption-of-ai-a-new-sigmoid-curve-c86cffe1617>