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Economy in the metaverse: creating and distributing value

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The Economic and Social Council (ECOSOC): *Economy in the metaverse: creating and distributing value.*

Programa MUN en las Aulas

Index:

1. Introduction:

- ***Definition of the metaverse and its potential***

The meta verse is a digital reality that combines aspects of social media, online gaming, virtual reality, augmented reality and cryptocurrencies. This allows users inside this reality to interact virtually. Each element contributes in a different way in order to make the meta verse a complete reality, augmented reality overlays visual elements, sounds and other sensory inputs onto real-world settings to enhance the experience, while virtual reality enhances fictional realities being entirely virtual. However, both of these elements are combined in the meta verse to create a sense of virtual presence.

The meta verse is a vast network where individuals, via their avatars, can interact socially and professionally. Other activities that can be developed in the meta verse is the investment in cryptocurrencies, take classes, or travel in 3-D reality. The number of activities that are developed in the meta verse is constantly and exponentially growing, new online spaces are being created, and interaction is starting to be multidimensional, opposed to the interaction that takes place within the current technological supports. The meta verse is the place where the digital and physical worlds converge.

2. Current situation:

When talking about the meta verse is essential to talk about Meta, Mark Zuckerberg's company. It is true that the meta verse does not have a single creator nor owner, however, Meta has invested heavily in the meta verse through their Oculus Virtual reality headsets and is currently working on projects related to augmented reality. Moreover, this company announced in 2021 an investment of $50 million in global research to ensure that this technology is developed in a responsible way.

Nowadays, the meta verse is offering a wide range of possibilities to its users, including investment in the different meta verses that are available currently, such as Axie Infinity or Star Atlas.

Although companies are investing in the meta verse, and there are services related to investment and cryptocurrencies that are available, the meta verse is still developing and most of its potential is about to develop. However, it is important to take into consideration the fact that economic activity is already taking place in this digital reality, through digital marketplaces and decentralized economies, which are the topics further developed.

Several authors believe that the United States' federal and state governments have chosen wrong methods for combatting the distribution of illicit substances. Aggressive, heavy-handed enforcement funnels individuals through courts and prisons; instead of treating the cause of the addiction and creating a highly profitable black market.

- ***Virtual marketplaces***

Virtual real estate refers to digital property that exists in online spaces, also known as virtual worlds or metaverses. These digital properties take many forms, but parcels of land, buildings and avatars are the most common. Virtual real estate can be purchased similarly to how you would purchase an NFT.

As the world becomes more digital and embraces the disruptive blockchain technology that's affecting so many industries, it's little surprise that the real estate market is following suit.

With the rise of virtual reality, or VR, a whole new world of real estate is shaping up. Whereas before, people could only invest in physical property they could see and touch, now they can buy and sell property in any location, whether it's in a made-up world (metaverse) or a real one.

The market value of a virtual property is derived from a range of factors. A particular metaverse real estate might be in a popular area with lots of digital foot traffic, making it suitable as advertising space. Staking benefits and other utilities also boost the value of the land. The specific metaverse platform will also will determine the land value. Some metaverse platforms allow for a considerable degree of personalisation, making it easier to build a unique space and plan exclusive events, and experiences. Examples include 'The Snoopverse' on 'The Sandbox' and Netflix's content on 'Decentraland'. Let's dive further into the three key factors that determine virtual land price:

- **Utility:** Each metaverse platform, game, or universe has a defined utility for its virtual real estate. Some allow for high levels of customisation, while others provide greater in-game benefits or stat boosts. An NFT virtual land with a particularly desirable utility, will be able to command a higher price on the open market.

- **Platform:** As mentioned above, the platform hosting the land will define its utility. Beyond that, a platform's brand name and reputation will also influence the value of a specific NFT land. This is akin to Nike or Adidas being able to charge considerably more than a lesser-known brand with comparable product quality.

- **Speculation:** The idea that an area of metaverse real estate may be more valuable in future is often enough to affect its price. If the whole market shares this sentiment and is bullish on metaverse land price, speculation becomes a significant factor in determining price.

Significant investments in virtual land and real estate within the metaverse, as well as an increase in the number of people and businesses making virtual purchases on metaverse platforms, are likely to drive market revenue growth over the projection period. Furthermore, an increasing number of firms are renting metaverse spaces and properties to construct storefronts, organize events for younger digital audiences, and develop virtual stores, all of which are contributing significantly to the market's revenue

growth. In addition, as metaverse real-estate becomes more popular, current metaverse platforms are producing additional land and increasing parcel sizes, and this trend is projected to continue, contributing significantly to market revenue growth. Companies and celebrities are investing in metaverse platforms in order to establish a digital footprint in the virtual realm through virtual real estate developers and architects. Meeting locations for individuals from all over the world, the construction of digital buildings for commercial purpose, and rising aesthetic enhancements in metaverse real estate are all examples of metaverse architecture.

- ***Virtual Currency***

Virtual currency is a type of unregulated digital currency. it is not issued or controlled by a central bank. Examples of virtual currencies include Bitcoin or XRP. Digital currencies are stored in and transacted through designated software, applications, and networks in digital form.

The traditional regulated currencies are backed by sovereign debts (fiat currency) or hard assets such as gold. In contrast, virtual currencies are not backed with no intrinsic value. therefore, the value of digital currencies is mainly based on the sentiment of traders. this entails a huge problem, price fluctuations. Price fluctuations are a cause of uncertainty in investment, as well as fluctuating value of all the transactions done using virtual currency.

The use of this type of currencies faces two main problems. The regulations over virtual currencies are not comprehensive or systematic enough, hindering their worldwide acceptance. Lacking supervision from a central administrator, decentralized virtual currencies provide opportunities for illegal transactions and money laundering. Moreover, out of the charge of a central bank, the value of a virtual currency is highly volatile. Therefore, it is a less favourable tool to store value or medium of exchange. For example, Bitcoin peaked at the end of 2017 at nearly $20,000 per unit. It later dropped to around $3,000 per unit within one year. Virtual currencies also raise security concerns. Despite improving encryption techniques, the loss or leakage of authentication information is still possible and can cause great losses to virtual currency owners.

Having said this, it is important to differentiate among the different types of virtual currencies that can be used.

1. Centralised

A centralised virtual currency has a central administrator or repository. The central administrator of a virtual currency is typically the issuer of that currency. The role is similar to a central bank in a regulated currency system. XRP is an example of centralised virtual currency.

2. Decentralized

Conversely, a decentralized currency does not have a third-party central administrator or repository. Instead, a distributed system will authenticate the transactions of a decentralized virtual currency. Decentralized virtual currencies are often based on blockchain networks. A blockchain network links a list of records, which is known as blocks, with cryptography. When a transaction is requested, the request is broadcasted in the network consisting of many computers (nodes). After the transaction is verified by the network, a permanent and unchangeable block that contains the transaction information is added to the existing blockchain, the transaction is therefore completed and recorded. One example of this type of currency is Ethereum, or Litecoin.

Virtual currency is a broad concept, referring to all the monetary assets that are in digital form. Virtual currency is a subset of digital currency, and cryptocurrency is a subset of virtual currency.

- Digital currency can be either regulated or unregulated. A regulated digital currency is issued by a country's central bank and can be denominated to a sovereign currency. The regulated type of digital currency is thus subject to a country's monetary policy. Virtual currency is a type of unregulated digital currency. It is issued and controlled by a private issuer instead of a central bank. Therefore, it is not subject to any monetary policy.

- A virtual currency can be either centralized or decentralized. Some virtual currencies contain cryptography, and some do not.

- Cryptocurrency refers to a type of virtual currency that implements cryptography technology to secure and authenticate currency transactions. Cryptocurrencies depend on blockchain networks. Hence, cryptocurrencies are decentralized virtual currencies.

- ***Digital assets***

A digital asset is generally anything that is created and stored digitally, is identifiable and discoverable, and has or provides value. Digital assets have become more popular and valuable as technological advances become integrated into our personal and professional lives. Data, images, video, written content, and more have long been considered digital assets with ownership rights.

Most digital items, like a company's brand, can be assigned a value, monetary or intangible. Some digital items might only be valuable to the creator or one person, such as a family picture on your phone taken at a gathering. Others could be valuable to a much wider audience.

According to NASDAQ, some types of digital assets available are the following:

- Cryptocurrencies: digital currencies are also digital assets, according to the definition they have a value, and therefore, are a digital asset. They can be used as a form of payment and investment.

- NFTs: non-fungible tokens, i.e., an asset's token is unique and allows for authentication proving that the token is real and specific to its owner. They are leveraged for areas such as artwork and media recordings, as a way of owning unique assets.
- Asset-backed tokens: this refers to physical assets, manly derivatives such as gold. They can be tokenized and traded amongst users on the blockchain through the use of asset-backed tokens.

Digital assets management faces a set of issues and threats, including the following:

- Lack of governance and standards: organizations often lack governance on the management of these assets, which can lead to inconsistent or even lacking standards for storing, organizing and tagging assets. This leads to versioning issues.
- Lack of visibility and control: this can lead to data loss and copyright infringement (which is very important in the NFTs area, due to the fact that digital assets are artwork, which have property rights implications). This is one of the most critical problems of digital assets management.
- Lack of integration: integrating with various systems to carry out management affects overall productivity in businesses and agents implicated in the management of digital assets.
- Lack of asset lifecycle management: managing digital content and intangible content is a huge challenge, the process of developing, using and managing digital assets is referred to as asset lifecycle management, it begins with the creation of an asset and ends up with its disposal.
- Lack of security: many companies fail to address this critical aspect in their management practices, in addition to the lack of regulation in this aspect. Digital asset management, in many cases, is not in compliance with basic security requirements.

- ***Decentralized economy in the metaverse***

A decentralized economy in the metaverse refers to an economic system in virtual worlds or decentralized virtual environments where assets, goods, and services are transacted without the need for centralized authorities such as governments or companies.

In the metaverse, blockchain technology and cryptocurrency can enable decentralized finance through smart contracts and decentralized autonomous organizations (DAOs). This allows for direct transactions, which are transparent, secure, and do not require intermediaries, such as banks or payment processors.

The concept of a decentralized economy in the metaverse is still in its commencement, but it has the potential to revolutionize the way people interact and transact in virtual worlds. With the development of virtual reality and augmented reality, the metaverse is becoming more immersive and interactive, and a decentralized economy can provide a more seamless and frictionless user experience.

However, there are also challenges and risks associated with a decentralized economy in the metaverse, such as the need for effective governance and the potential for fraud and hacking. It will require collaboration between developers, regulators, and users to build a powerful and sustainable decentralized economy in the metaverse.

- ***Benefits and challenges:***

The metaverse is an emerging concept of a virtual universe that is being created through various digital platforms and technologies. It has the potential to transform the way we interact with each other, conduct business, and access entertainment. As this virtual world continues to evolve, there are both benefits and challenges that need to be considered. That in the following points will be explain:

Benefits of a decentralized economy in the metaverse:

- Increased financial autonomy: A decentralized economy in the metaverse can empower users by giving them greater control over their assets and transactions, without relying on centralized authorities or intermediaries.
- Reduced transaction costs: Transactions in a decentralized economy can be processed quickly and securely, without the need for intermediaries such as banks, reducing transaction costs.
- Increased transparency: Blockchain technology allows for transparent transactions that can be easily audited, providing increased trust and accountability.
- Greater innovation: A decentralized economy can foster innovation by enabling developers to build new applications and services that are not possible with centralized systems.

Challenges of a decentralized economy in the metaverse:

- Governance: A decentralized economy in the metaverse may require effective governance mechanisms to ensure that users' interests are protected and to prevent fraudulent activities.
- Security: The use of blockchain technology and cryptocurrencies can expose users to potential security risks, such as hacking and fraud, which may require enhanced security measures.
- Adoption: Widespread adoption of a decentralized economy in the metaverse may take time, as it may require education and awareness among users and businesses.
- Regulation: The regulatory landscape for decentralized economies in the metaverse is still evolving, and regulatory clarity may be necessary to foster widespread adoption and protect users' interests.

This clarifies that, while there are challenges and risks associated with a decentralized economy in the metaverse, it has the potential to offer numerous benefits and revolutionize the way people interact and transact in virtual worlds.

- ***Regulations:***

As the metaverse continues to grow and evolve, there is a growing need for regulation to ensure that it operates in a safe and fair manner. The metaverse is a virtual universe that can provide many benefits, such as increased access, economic opportunities, and enhanced collaboration. However, it also presents several challenges, including security and privacy risks, inclusivity issues, and ethical concerns.

Regulation can help address these challenges and ensure that the benefits of the metaverse are accessible and equitable for everyone. Here are some potential areas of regulation for the metaverse economy compromise:

- Consumer protection: As with any economy, consumer protection is a key concern. Regulations may need to be put in place to ensure that users are not exploited or defrauded in the metaverse, and that their personal information is protected.
- Anti-money laundering and know your customer regulations: With the potential for anonymous transactions, there is a risk of money laundering and other illicit activities.
- Taxation: As transactions in the metaverse become more commonplace, governments may need to implement taxation policies to ensure that appropriate taxes are paid on income generated in virtual worlds.
- Intellectual property: Virtual worlds contain a significant amount of intellectual property, including digital assets and virtual real estate. Regulations may need to be put in place to protect this intellectual property and prevent infringement.
- Cybersecurity: The metaverse economy is vulnerable to cyberattacks and data breaches, and regulators may need to implement cybersecurity regulations to protect users and prevent data breaches.

In conclusion, the regulation of the metaverse economy will require a multi-stakeholder approach that involves collaboration between developers, regulators, and users to ensure that the economy is safe, fair, and sustainable. As virtual worlds continue to grow and evolve, the regulatory landscape will need to adapt and evolve as well.

3. What to tackle:(QARMAs)

- What is the definition of “value” in the metaverse economy, and how is it created and measured?
- How will economic activity be regulated in the metaverse, and what measures will be put in place to prevent fraudulent or malicious behaviour?
- What will be the role of governments and other regulatory bodies in the metaverse economy, and how will they interact with private companies and individuals?

- How will intellectual property be protected in the metaverse, and what legal frameworks will be necessary to safeguard creators' rights?
- How will the metaverse economy affect employment and income distribution, and what measures can be taken to support workers in transitioning to new forms of work?
- How will privacy and data protection be ensured in the metaverse economy, and what measures will be in place to prevent abuse of personal information?
- How will the metaverse economy promote sustainability and responsible consumption, and what measures will be put in place to minimize its environmental impact?

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5. Vocabulary:

Metaverse : The term "metaverse" refers to a virtual universe or collective virtual shared space where people can interact with a computer-generated environment and each other in real-time.

Virtual Reality (VR): A computer-generated environment that immerses the user in a 3D environment through the use of headsets or other devices.

Augmented Reality (AR). Technology that overlays digital information or objects onto the physical world, typically through the use of a camera and mobile device.

Blockchain: A decentralized digital ledger technology that allows secure and transparent transactions, used for digital currencies and other applications.

NFTs: Non-fungible tokens (NFTs) are unique digital assets that are verified on a blockchain network and can be used to represent ownership or authenticity of a virtual item, such as a digital piece of art or virtual real estate.

Decentralized Finance: A blockchain-based financial system that allows for peer-to-peer transactions and eliminates the need for traditional financial intermediaries.

Cryptocurrency: A digital or virtual currency that uses cryptography for security and operates independently of a central bank.

Spatial computing: The use of technology to create and manipulate virtual environments, allowing users to interact with digital information in physical space.