



Auditing in the Metaverse, the “New Reality”

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Abstract

The proposed study expresses some considerations about the digital transition in the accounting profession, especially its metaverse aspects. The main reason for this investigation is the importance of the topic in a world that is constantly changing. When reviewing the literature on this topic, the authors found several studies related to the role and importance of metaverse in the accounting profession. In their analysis, the authors conducted a qualitative study that focusses on the role and importance of the metaverse and its scope in the accounting profession. The results of the research show that although the digital transition is not at the beginning of the road, we must adapt to the new changes, so a professional accountant must also have significant knowledge in the field of IT. Following this study, the authors concluded that the role of the digital transition in the accounting profession is essential to face the new demands on the market and to respond in the shortest possible time to the demands of clients.

Key words: digitalization; audit; metaverse;

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Introduction

The digital transition is ubiquitous these days, and thus the metaverse is being discussed more and more. Technology will evolve and open new horizons for us. How we adapt our learning ecosystems to these new opportunities must also evolve. Everyone is talking about the metaverse. The term sounds like science fiction. Is the metaverse a utopia with unlimited possibilities in virtual reality or a dystopia where we are only online?

It is not really that wild, because such on-line worlds existed and already exist. Not all the many doomsday predictions about the Internet have come true. There are many visions regarding the metaverse, as many companies are currently working on their own version. Metaverse is currently perhaps the biggest trend of all. It describes a digital world where virtual and physical reality merge. Many experts see the metaverse as the logical progression of the Internet, and they assume that our lives will increasingly take place in the metaverse. So, it is no wonder that more and more companies are specializing in the metaverse and positioning themselves accordingly.

The metaverse as a term connects the meta and the universe and thus represents something beyond the universe. So, an extension of our reality, or our own artificial, fictional space. Current discussions and views of the metaverse describe online worlds with different characteristics. When it comes to experiencing these worlds, it is usually described as three-dimensional immersion with the help of virtual reality glasses and future hardware. Designable characters, called avatars, embody individual users. Functions and connections between the virtual and the real world are also possible as augmented reality, enriching the real world with additional information and interaction options (AL-GNBR, 2022a, 2022b).

In a metaverse on-line world, users can help shape the environment, create and trade virtual objects and things. Although this looks mostly like a computer game, the opportunities to interact with others do not match the usual goals and competitive nature typical of games. The present paper aims to make a first x-ray of what the metaverse is about in the world of professional accountants. Before we get into the details, we need to clarify what this metaverse actually is or what it actually represents. Is it just a

trend or is it a reality that we have to face in the digital transition?

The term "metaverse" was coined in Neal Stephenson's 1992 science fiction novel, *Snow Crash*, in which humans interact as avatars in a three-dimensional virtual world. In the novel, as in real life, the metaverse is a 3D virtual extension of the Internet as we know it. It gives its users great freedom to interact in real time while allowing them to create any online environment imaginable.

An important contribution of business informatics to these developments lies in recording and modelling user acceptance. The highly utilitarian focus of acceptance research, which is primarily aimed at isolated use in professional contexts, needs to be expanded and supplemented with new aspects.

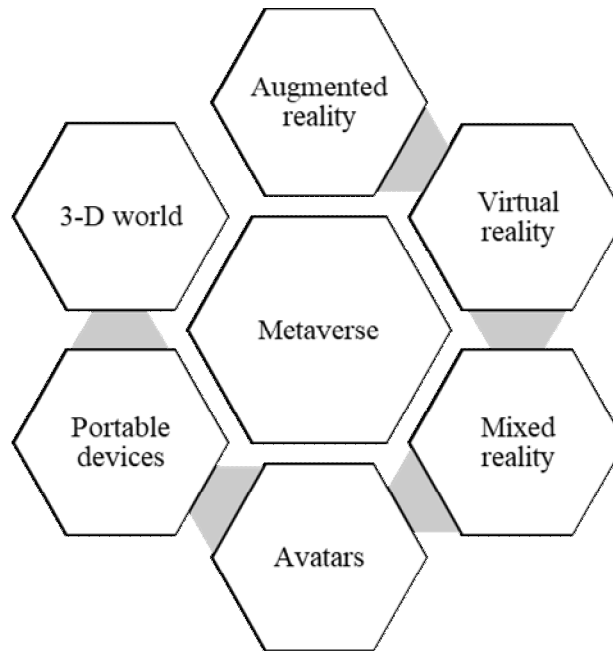
Conceptual delimitations regarding the metaverse

The virtual world is receiving more and more attention in public perception and scientific discussions. Basically, a distinction must be made between the virtual game world, where users pursue predefined game goals, and the social virtual world, where the emphasis is on communication and cooperation between users. Thus, from the point of view of the metaverse, the virtual world combines with other technologies to form an omnipresent and comprehensive information space (*Figure no. 1*).

The metaverse is a virtual digital world that can exist in both pure virtual reality and augmented reality form. In the latter form, another digital layer is placed on the existing reality, which can be viewed through glasses or a digital display such as a smartphone, thus creating a convergence between real and digital reality. In addition to viewing, it is also possible to interact with objects in this digital reality (Yemenici, 2022).

The metaverse is a massive, persistent network of interconnected virtual worlds designed for real-time interaction where people can work, interact socially, do business, play, and even create. It uses virtualization and advanced technologies (AR, VR, haptic sensors, etc.) to fully immerse the user in the virtual world. This means that the user can interact directly with a world that is always there and can be accessed at any time (Mystakidis, 2022; Weinberger, 2022).

Figure no. 1. Metaverse Technology



Source: own projection

Many proponents believe that the perfect futuristic version of the "metaverse" would be a single platform where you link your personality, identity, and platform services, creating many worlds for you to access. Like a world with many interconnected worlds to join, leave, or even recreate. The important factors are still the definition of a digital identity, digital ownership, digital currencies, and the universal portability of digital assets, and thus a fully functioning economy in a virtual world.

In this way, metaverse could replace different aspects of how tourism works, what it means to go to a concert, how to discover art exhibitions, but most importantly how people learn, study, interact, and even meet friends.

The definition of the metaverse is unclear. However, one thing is clear: the metaverse goes far beyond what we understand today by terms like virtual reality, augmented reality or mixed reality. These technologies may be part of the metaverse or enable certain user experiences.

Matthew Ball, Managing Partner of the venture capital firm Epyllion Co. and co-founder of Ball Metaverse Research Partners, has been dealing with metaverse for several years and about two years ago attempted to present some

theses describing such a virtual world of the future (Ball, 2022). According to Ball, the metaverse is:

- Persistent, meaning it is never reset. It does not stop, let alone end, in any temporal or spatial dimension.
- Synchronized and live – just like in real life, metaverse will be a live, consistent experience for everyone and in real time.
- Unlimited – there will be no limit to the number of concurrent users.
- Individual – each user appears as an individual personality. They can all be in places, participate in events, or be active at the same time as individual agents.
- Economically Viable – A fully operational economy will establish itself in the metaverse. Individuals and companies will create jobs, own things, buy, and sell them.
- Valuable – the value of virtual objects is recognized by other participants.
- Diverse: the metaverse can include both digital and physical elements, interact with various private and

public networks, and integrate open and closed platforms.

- Interoperable – Participants should be able to use digital objects and content throughout the metaverse in a wide variety of experiences.
- Open metaverse content and experiences are created and operated by a variety of contributors. These can be individuals, organized groups or commercially oriented companies.

From Ball's point of view, metaverse are a further step in the evolution of the World Wide Web, which is now evolving from the stationary PC through the mobile era to a fully virtual world.

"Metaverse is a massive and interoperable network of real-time rendered 3D virtual worlds that can be experienced synchronously and persistently by an effectively unlimited number of users with an individual sense of presence and continuity of data such as identity, history, rights, objects, communications, and payments."

The development of the metaverse is currently quite fragmented. Many different manufacturers are running their own initiatives. Depending on market power and technical knowledge, their impact varies. This means that the question of control has not yet arise. Ultimately, however, it will certainly be a problem if the hegemonic efforts of individual companies damage the idea of the metaverse.

In 2009 Davis et al. wrote: "Metaverses are immersive three-dimensional virtual worlds..." using the plural of the term metaverse. However, later in the same article they write: "A specific instantiation of a metaverse is a virtual world, including what others refer to as virtual spaces or virtual world environments."

In their 2021 article, Lee et al. states that the metaverse is "... characterized by perpetual, shared, concurrent, and 3D virtual spaces that concatenate into a perceived virtual universe." This clearly emphasizes the idea that there is a single metaverse that encompasses many virtual worlds.

Regarding the nature of the metaverse, Wang et al. (2022a) wrote in their article: "Typically, the metaverse is viewed as a fully immersive, hyper spatiotemporal, and self-sustaining shared virtual space that combines the ternary physical, human, and digital worlds."

The literature review reveals that the ongoing debate about the metaverse business model presents a research gap, particularly when it comes to the ethical compliance of data collection and use in the metaverse.

The metaverse gave people a new identity and created a new, very free space for life and activities. It contains more complicated social relationships. As a next-generation network, metaverse must control and limit user behavior and establish clear ethical and moral norms to maintain a good and orderly metaverse ecological environment. The ethical and moral problems of the metaverse refer to the phenomena that occur in the metaverse due to the absence and confusion of appropriate moral norms, which conflict with the ethical norms of real society.

Digital transformation to adapt to the metaverse

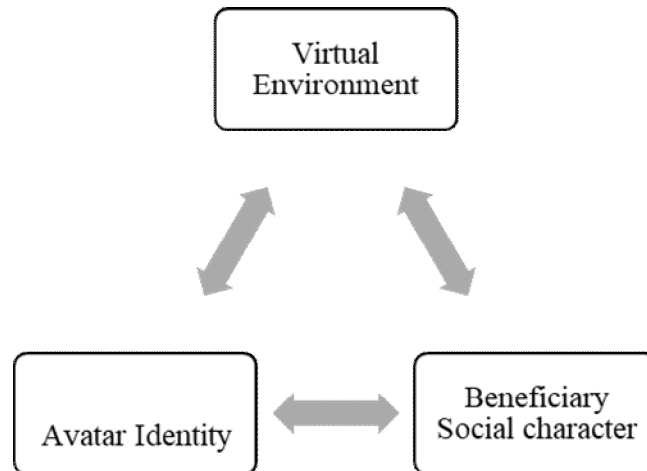
Some consumers and businesses may not yet fully understand what added value the metaverse should bring them. After all, the real world gives us everything we need, also due to the ongoing digitization. At work, collaboration tools and video conferencing help collaborate; regardless of location, shopping can be done with just a few clicks on apps. In addition, meeting friends in real life is much more enjoyable anyway.

The metaverse adds a third dimension to the two-dimensional Internet. Instead of websites we navigate, we enter virtual worlds. They do not have a switch, but are always available. VR glasses are not a synonym for the metaverse, but are one of several access technologies. However, a special one: "perfect immersion" is only possible with VR headsets; users dive much deeper into virtuality than with other devices (Visconti, 2022).

Moreover, we enter the worlds of the metaverse not as ourselves but as an avatar. While we can be seen as a photo on Instagram and as a video image in Zoom meetings, the avatar represents us in the metaverse when we meet other people. Unlike the Internet, where we mostly travel alone, metaverse is at its core a social institution, where the benefits come from the presence of other people. The social character finds its expression in common activities, but also in the purchase of branded virtual clothes with which one wants to please others (Yoo et al., 2023).

The metaverse thus combines various elements from the real world, conventional two-dimensional videoconferencing, and games (*Figure no. 2*). This creates a unique character that promotes social interaction in a new way (Power & Teigland, 2013; Kim, 2021; Visconti, 2022; Yoo et al., 2023).

Figure no. 2. Dimensions of the metaverse



Source: own projection

The value of the metaverse results from social interaction. The internet is also - of which few are aware – the opposite of social. Practically everything we do there is done by ourselves: we read emails, watch videos on YouTube, and browse supposed social networks like Instagram or Facebook. Since the pandemic, we have been trying to use video chats to find what we have in common on the Internet, but we had to quickly learn its limits - keyword "Zoom Fatigue".

The value of doing things with others or just being around them is undeniable. Psychologist Abraham Maslow assigned social motives a central place in his hierarchy of needs; for him, they come immediately after the protection of life and limb.

Shared activities can generate deep feelings and build strong bonds. The Internet cannot provide this benefit.

For companies, the metaverse provides value wherever products, services, and decisions are associated with common actions. There are also advantages that result from virtuality itself. It enables things that are unthinkable in the real world or on the 2D Internet.

Such projects may be directly related to the metaverse or related to its core technologies, and thus may also contribute to strategic development. While the finance department will not necessarily need to work on spreadsheets in the metaverse in the future, it is definitely a good idea to design at least part of it as a virtual experience for meetings or training sessions.

The most important thing in companies is to stay flexible, because, especially with a technology that is under construction like the metaverse, new developments can appear almost daily. To be able to act flexibly in the future, it is essential that we meet these challenges. A first step could be, for example, to check to what extent real-time 3D data are already available in the company or how cross-departmental knowledge and data sharing can work. These changes are an ongoing process and not a one-time transformation.

Metaverse - the "new reality" in the auditing profession

The industrial revolution of the 18th and 19th centuries came with many transformations and innovations that gave rise to the use of machines and fundamentally changed the way people lived. Each century seems to bring its own peculiarities and changes. In particular, the 20th and 21st centuries, which are referred to as the digital age, have brought many upheavals to our world. While auditors and other professionals are still trying to make sense of emerging technologies and innovations such as blockchain and cryptocurrencies, the hype surrounding the metaverse is suddenly everywhere. The concept of virtual worlds has previously existed in fiction novels, movies, and on platforms that allowed people to

create digital representations of themselves and live in nonphysical spaces (Upadhyay et al., 2022).

According to *Today Digital*, "The metaverse can be defined as a simulated digital environment that uses Augmented Reality (AR), Virtual Reality (VR) and Blockchain, along with concepts from social networks, to create spaces for rich user interactions that mimic the real world." The metaverse provides a sense of realism and presence that will allow people to live and connect in virtual worlds wearing VR/AR headsets. Some of the use cases include gaming, entertainment, work, education, and commerce. The thought of a job exist in a virtual world is out of reach.

The COVID-19 pandemic has accelerated the widespread adoption and acceptance of remote work, and most organizations are already seeing it as the new normal. Further adoption of the metaverse will help remote work. An auditor cannot help but think about what auditing looks like in the metaverse environment. The ability to audit remotely from anywhere in the world and engage auditees in a more agile way is ensured – even as the focus shifts from auditing technology to using technology as an audit tool. Although technology is not yet at an advanced stage, many large companies and organizations are already working to adopt the metaverse in the process. However, business success is not so much about adopting new technology as it is about adopting relevant technology. Although the metaverse appears to be the next big thing, it is still uncertain whether it will revolutionize our world and fundamentally change the way we do things (Wang et al., 2022a,b; AL-GNBR, 2022a,b)

One of the challenges of traditional auditing is the inability to cover the entire audit world due to distance and time constraints. The metaverse can provide an enabling environment and platform for conducting a thorough remote audit by providing one-on-one engagements/interviews with auditees. This is much better than long-distance calls, which are less attractive.

Agile auditing is also gaining wider acceptance due to its ability to solve difficult audit areas and its potential added value over traditional auditing. Agile auditing values one-on-one and face-to-face interactions throughout the process. Therefore, auditing in the metaverse virtual world will increase the wider adoption of agile auditing.

The big failure to adopt metaverse as an audit tool leaves skilled content creators to design and manage the platform for organizations interested in using it.

Additionally, a user-friendly headset should be designed to reduce discomfort.

Employees will be decisive for the success of metaverse projects. They will not only implement or sell them to customers, and it helps if the team themselves are convinced of the goal, they will use them themselves. Consequently, company leaders must also find ways to convince the team of this journey and involve them as soon as possible.

What are the possible uses for metaverse?

Visionaries say the metaverse will change everything from work and business to fashion, online dating, computer games and entertainment to communication and education. Here are some examples of what companies think are apps today.

Meeting in the metaverse

Teams is a Microsoft online platform for communication in companies. This makes video conferencing, chat, file management, and sharing possible, as well as connecting Office applications. Microsoft values *Teams* as a collaboration tool that enables location-independent collaboration and remote work, including simultaneous document editing. What should be integrated now would be a virtual element in teams. This makes virtual room conferencing possible. Users can also send an avatar to a conventional video conference instead of webcam video transmission (Wang et al., 2022a,b; Park et al., 2023).

Communication and Connection

Mark Zuckerberg's vision of the metaverse is called *Horizon Worlds*. The company Meta Platforms develops and publishes this virtual reality platform, which can be used with an Oculus headset. The purpose of the 3D world is the collaboration of users who can create places and content together. From games and entertainment to lessons, meetings, and work, there should be no limits here. Other vendors will follow this path and create solutions that focus on social aspects. Like-minded people can find and exchange information as in a social network, no matter where they are in real life. But we now know that the gain in speed and cost reduction is often bought at a loss of community.

In the metaverse, organizations can take advantage of digital benefits while limiting the downsides of virtual collaboration. VR headsets give us the feeling of being face-to-face with colleagues, even when they are actually on different continents.

Employer travel is considered by the company to be an advantage in terms of sustainability. Here, too, the focus is on the social benefit: virtual meetings are networking meetings where barriers fall and social bonds are formed. The three-dimensionality of the metaverse has other advantages for employees. In this way, members of a team can meet in front of the 3D model of a product in its original size – just as if they were together on site. Metaverse is also a reliable interface for people outside the company. Thus, meetings can be established to clarify some additional aspects (Far&Rad, 2022).

Risk reduction for hazardous tasks

In virtual reality, it is not dangerous to operate a car incorrectly. In fields such as construction, law enforcement, safety training, healthcare, and manufacturing, “mistakes” are often life-threatening, not to mention costly. Immersive simulations would help reduce the number of errors. VR can accurately replicate tasks and processes, and this could enable hands-on training that allows learners to imagine, practice, and prepare (Wang et. al., 2022b).

Creativity and entertainment

Many virtual platforms bring creativity and fun to the fore and, above all, try to give users the tools to implement their own ideas (Eager & Standish, 2022).

Learning and Teaching

The transmission of knowledge through the environment is indeed an interesting and promising aspect of the metaverse. In virtual classrooms, things and concepts can be demonstrated from concrete to the abstract with relatively little effort. And here, the power lies in the content that users create themselves. Today, everyone can pass on their knowledge and expertise to others on the so-called skill-sharing platforms. Instead of explainer videos, complete with text and worksheets, there can be 3D renderings, interactive simulations, and content that can be experienced.

This deep, lifelong learning is brought to us by metaverse in a hybrid, guided learning environment that represents

the learning of the future. The metaverse opens up into a larger ecosystem. A digital world where people can collaborate, interact, analyze, practice and solve problems is ideal for learning and development in organizations because it gives learners the tools they need to succeed while encouraging and enabling them to take control of them. (Wang et al., 2022a,b).

2022 has already seen significant investment in learning, development, and technology programs, particularly to attract a new workforce and improve employee experiences. The metaverse continues to be the topic of discussion in companies that are beginning to implement learning interactions in virtual environments. Consumers, especially Generation Z, expect personalized and immersive experiences in their daily lives, and this sets the standard for learning solutions (AL-GNBR, 2022a,b).

The metaverse could give learners the opportunity to practice their soft skills in their free time and identify their weaknesses. Think of customer service reps who can practice handling customer conversations and managing heated arguments while actually preparing for those conversations. Imagine a sales negotiation simulation with multiple scenarios that could better train your sales skills (Upadhyay et al., 2022).

An advantage of virtual rooms is that they are open 24 hours a day. When companies host their metaverse worlds, they need to keep two things in mind. On the one hand, they must be more useful than comparable activities on the Internet. Second, metaverse offers must be more attractive than their real-world equivalent.

Conclusions

Even at the beginning of the Internet there were text-based online worlds, so-called multi-user rooms. Here, players met to experience fantastic adventures together or alone and to create and explore fictional worlds. Opportunities for creativity and design have become popular features. The new metaverse becomes clear when we return to the picture of the universe. Many and various online worlds exist together in one universe. We reach the meta-state when there are no fixed boundaries between individual rooms. and, communication and exchange are universally possible.

Virtual things are then not tied to a particular world or view, avatars “travel” from one world to another, communication, services, and payments flow between individual locations as in reality.

We often hear that it is "too early" for metaverse activities, the glasses are too heavy, and the avatars aren't realistic enough. The subject should be looked into more closely when the metaverse is "finished". That is the wrong attitude. You can start using metaverse for your organization and business today so you can familiarize yourself with these new technologies. Obviously as these new technological innovations develop, a lot will change and probably improve over the next few years, but that shouldn't be a reason to put off your own explorations.

The metaverse is an environment characterized by steep learning curves and immense network effects. Barriers to entry increase over time – and quickly become unassailable. As skeptical as we may be, the metaverse is the next level of the Internet. The gaming industry was the fastest to recognize its potential, but soon it will soon be used in other areas of our lives. eLearning is also expected to benefit

greatly from the metaverse, using its immersive capabilities to make virtual learning environments more realistic and learning itself more immersive and experiential. Although at this point we can only imagine what the future will bring, it will be very exciting to actively experience the changes ahead. Other definitions of metaverse speak of a moment in time or a threshold. The metaverse is reached when we place more importance on the digital and online world than physical reality. In other words, virtuality becomes more important than reality.

Can we consider the metaverse a real technological progress or just a trend? Given the metaverse, this question can probably only be answered in a few years. For companies, this often makes it difficult to decide whether or not to invest in new virtual worlds and experiences. Spending must be well-thought-out and profitable, especially in economically uncertain times.

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