

Choosing the path to metaverse in HR

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ABSTRACT

Metaverse is increasingly attracting the attention of scholars and practitioners seeking to understand its theoretical foundations and business implications better. This article provides an overview of what has been studied and researched in the academic analysis of the metaverse. It adopts a systematic literature review and bibliometric analysis. The research is a thematic map of metaverse research. Four metaverses of current research, Metaverse in Hr, Metaverse in future and Is India ready for it?

KEYWORDS: Metaverse, future, Web3, Mixed reality, HR metaverse

1. INTRODUCTION

The concept is not new: the term metaverse was coined in 1992 by author Neal Stevenson in his novel Snow Crash and has been around for decades to support virtual reality-based Internet technology. These seven technologies will impact metaverse development over the next decade: Artificial intelligence, the internet of things, Extended reality, Brain-computer interfaces, 3D modelling and reconstruction, Spatial and edge computing, and blockchain.

A metaverse is a digital space inhabited by digital representations of people and things. Think of it like a new version, maybe, of the internet. Many people talk about the internet as a place. Now we can go into that place to communicate, share and work with others. It's an internet you can work with like we do in the physical world. And it's not a vision anymore. Right now, we can go to a concert and experience a show with other real people inside a video game. We can walk to a factory floor from our own homes. We can join a meeting remotely but be in the room to collaborate with our co-workers. Those are metaverses. The future is already here. If the past few years have taught us anything, we need flexibility. The world has never been more connected, but lately, we've had to be physically apart more often than not. The more closely we can mirror our physical appearance in the digital realm, the more we can break down these barriers. The metaverse can draw far beyond the obstacles and limitations of the physical world.

But how will it be used in human resource management? Nothing is said about integrating Web 3.0 into human resources or how it can be developed in human resource management. Regarding work or employees, we all know that any HR manager, HR department manager, or even a company leader would be interested in an employee who performs at the highest level. Interactive games and simulations, for example, can speed up training and improve results by allowing employees to operate the equipment as in "real life" or explore the point of sale for high-value customers. Metaverse can make it easy for executives and managers to visit factories, distribution centres, or construction sites on the other side of the world, interact with employees, and conduct on-site inspections. The metaverse will influence the HR function immensely and have substantial implications across the employee life cycle, including recruitment and onboarding, employee engagement, and learning and development.

According to experts interviewed by technology writer Lawton, creating a thriving metaverse work environment will require more than simply consolidating existing office space and protocols into virtual space. Indeed, preliminary research suggests that translating an existing office into a 3D virtual equivalent can reduce productivity and cause nausea and motion sickness.

However, like the internet in the 1990s, the metaverse represents the potential to "shrink the world," says Andrew Hawken, founder and CEO of VR technology vendor Mesmerise. Done right, says Lawton, the expert he interviewed; metaverse technology can improve telecommuting, improve collaboration, accelerate learning, reduce the need for office space, and generally make it a happier place. Frank Diana, managing partner and futurist at Tata Consultancy Services, will also eliminate Metaverse jobs.

Seven famous companies in the metaverse are Facebook, Microsoft, Decentral, Nvidia, Unity, Sandbox, and Roblox.

2. OBJECTIVES OF THE STUDY

- To find out the impacts of a metaverse in HR. What should HR know about it, and how is India ready?
- To find out the effects of the metaverse on future business.

3. REVIEW OF LITERATURE

3.1 Metaverse: the state of art

The literature has attempted to conceptualise and define the metaverse in several ways. Herman and Browning define it as "a fully realised digital world that exists beyond the analogue one in which we live"; Morgado explains it as "a plethora of interconnected world". Meta Platforms, Inc. Bosworth and Clegg (2021) describe it more simply: "The 'metaverse' is a set of virtual spaces where you can create and explore with other people who aren't in the same physical space as you".

Across the definitions, the term metaverse defines a collective, persistent, and interactive parallel reality created by synthesising virtual worlds where people can use personal avatars to work, play and communicate with each other. Virtual technologies enhance the perceived immersion with the character realness of the avatars and residents. Usually networked and situated with intelligent agents, they allow users to interact with virtual objects and intelligent agents freely and communicate. In multiple forms, these worlds can be experienced synchronously and persistently by unlimited users.

The common attributes of the metaverse are multi-technology, sociality and hyper spatiotemporally. It integrates various new technologies, including augmented reality (AR), virtual reality (VR), and mixed reality (MR), and constitutes an economic system based on blockchain (multi-technology). The metaverse embraces economic, cultural, and legal systems (sociality) in a virtual world; it allows the breaking of boundaries of time and space (hyper spatiotemporally).

Changes in consumer and business behaviours are frequently associated with changes in the metaverse. The academic investigation concerns customers' journey, purchasing

process, buying behaviour, perceived value and value propositions and consumption patterns. Individuals can live through immersive experiences, interacting with the metaverse-escape. Hedonic motives drive consumers to undertake virtual experiences for enjoyment and pleasure, whereas practical reasons drive consumers to satisfy their functional needs in the virtual world. Escaping reality is another key driver of users' participation in the metaverse experience. ICTs, particularly virtual worlds, enhance escapism, helping people who want to 'leave' the natural world in which they live, both cognitively and emotionally.

The first article on metaverse in the literature was published by Jaynes et al. The study discusses the problems in the design and application of the metaverse. Papagiannidis et al. examined the social, political, economic, and ethical implications of online games in which large numbers of players from all around the world interact with avatars created by using either their existing identities in the physical world or virtual identities with no connection to their identities. Kumar et al. examined the virtual world in two classes: online games and the metaverse. They defined the basic features of the VWs as multimodal input, heterogeneous clients, server scalability, network constraints, object encodings, physics engine, security, privacy, and fairness. Davis et al. explained virtual collaboration and teamwork in detail to understand the opportunities and risks in metaverse environments. They developed a conceptual model of five constructs:

- The metaverse itself
- Humans/avatars in the metaverse
- Technology capabilities in the metaverse
- The behaviour of avatars in the metaverse
- The outputs of the metaverse

At the beginning of the 21st century, the rapid development of virtual reality technology and computer graphics created the technical basis for developing the metaverse. At the primary level, video games have become a new vehicle for exploring the metaverse. The game Roblox, released by Roblox in 2006, and the development of Minecraft by Mojang Studios in Sweden in 2009 greatly inspired the first wave of discussions about the metaverse. The story of metaverse is still in its infancy, and its business model is not mature. Due to the open issues such as interaction issues, computing power pressures, ethical constraints, privacy risks, and addiction risks in the different worlds, and the fact that Metaverse development is still limited by current technology, research interest in metaverse is at an Ebb Stage after 2013. On March 10, 2021, Roblox, a sandbox game platform, included the concept of "Metaverse" in its prospectus for the first time and successfully landed on the New York Stock Exchange. The company's market value exceeded \$40 billion on its first day of listing. This phenomenon sent the technology and capital worlds into an uproar and reignited the discussion about the metaverse. This year can be called the first year of metaverse. In the development phase, metaverse has integrated 5G, cloud computing, computer vision, blockchain, artificial intelligence and other cutting-edge science and technology that are in a phase of rapid development. Metaverse has been 11 applied to many fields such as medical treatment, video games, art, business, etc., and has completed its transformation from games and beyond games. The metaverse has unprecedented explosive power.

The metaverse is increasingly consolidating its position as a large-scale industrial workspace. An appealing, expected outcome is that companies will be able to produce digital copies of all their processes (just as a "digital twin"), which can be tested in the metaverse before being physically implemented. Thus, the design can be corrected for improvements before construction begins, significantly saving both time and resources.

One of the key aspects that makes the development of the metaverse feasible is the immersive quality of VR, which allows users to interact with different objects and scenarios as accurately as they would in the real world. Therefore, the implementation of the metaverse in activities of daily life will be closely linked to the development and sophistication of VR devices. Finally, the scientific and technical literature unveils diverse and numerous ways of authors are addressing the field of VR-powered metaverses from different sectors. It is

expected that in the coming years, this technology will be progressively extended to all sectors and will be well and widely received.

A modern literary reincarnation of the metaverse is the OASIS, illustrated in the 2011 science fiction novel *Ready Player One* authored by Ernest Cline. OASIS is a massively multiuser online VR game that evolved into the predominant online destination for work, education and entertainment. It is an open game world, a constellation of virtual planets. Users connect to OASIS with headsets, haptic gloves and suits. Regarding education, OASIS is much more than a public library containing all the worlds' books freely and openly accessible to citizens. It presents a techno-utopic vision of virtual online education. Hundreds of luxurious public-school campuses are arranged in the surface of a planet dedicated exclusively to K-12 education. Online school classes are superior in comparison to the grass-and-mortar schools as they resemble holodecks: Teachers take students for virtual field trips to ancient civilisations, foreign countries, elite museums, other planets and inside the human body. As a result, students pay attention, are engaged and interested.

Metaverse offers sustainability for businesses to create new experiences for customers, including new internet experiences that transform online business activities from two dimensions into three dimensions, which appear more real and rich in experience. Sustainability will be achieved when the profits of a business using the metaverse are, of course, balanced with the anticipation of the losses that can be suffered by the users, especially regarding the rights of the big data generated in using the platform. Therefore, the ethical framework suggested in this study provides businesses a way to promise sustainability in the long term. Finally, the metaverse and its ethics are discussed from the perspective of data leakage. According to previous literature review, the largest case of data leakage in human history is the breach of social media user data. This is the primary reason why the metaverse, which uses an enhanced version of the internet, must take precautions to prevent a similar data leak in which the platform provider's negligence is the primary cause. Therefore, providers of Metaverse platforms must ensure the sustainability of their business by acting ethically and refraining from directly or indirectly disclosing the data of their users.

Metaverses embedded in our lives create virtual experiences according to part of life scenarios inside of the physical world (Siyaevev & Jo, 2021). For example, the concept of haptics stands out among the researcher keywords used. Haptics differs from other robotic devices; It allows people to feel the shape, roughness, and vibration of the surface in a virtual reality environment or while controlling slave robots. Real perception is an important factor for the user to experience.

4. RESEARCH METHODOLOGY

A literature review is an academic piece of writing that demonstrates knowledge and understanding of academic literature on a specific topic, placed in context. Literature review includes critical evaluation of materials; therefore, it is called a literature study instead of a literature report. This literature review is a written form.

To illustrate the difference between reporting and reviewing, think of a TV or movie review article. This article contains content such as a short synopsis or highlights of the film or program and its own critical assessment. Similarly, the two main goals of literature review are, first, to provide content that includes existing research, theory, and evidence, and second, to critically evaluate and discuss the content.

A literature review is usually a part or parcel of a dissertation, research project, or a long piece. However, it can be identified and appreciated as its own work.

Quality journals and research papers on the current subject are important for the research. Once studies were identified, inclusion and exclusion criteria were met. First considering articles in English, 25 articles were identified. As this is an emerging topic, research also includes book reviews, editorials, and conference proceedings. After the survey, 10 papers were sampled. And analyse some companies' effort made in Metaverse like Accenture, Microsoft, FB by taking references from their official website.

5. ANALYSIS AND DISCUSSIONS

5.1 Metaverse in HR



Metaverse is not currently considered a "must-have" technology in corporate circles, and there are legitimate questions about whether this investment, which drives relevant initiatives, could be a more serious face for Meta. questions about the ability to lead a galvanised workforce for successful online implementation.

However, the potential to use such a platform as a tool to improve functional efficiency is very strong due to many promising possibilities. The diagram below provides some examples of the positive impact metaverse can have on the HR function like

- **Onboarding-** Welcoming new talent in an organisation can be very difficult if not managed properly. The latter inductees must be "acclimatised" in a "friendly" way, allowing them to acquire the necessary information, insight, and introductions and reach a comfortable "comfort" level in a short period of time. Metaverse can overcome "initial jitters" by providing "empowering", "learning" and "interactive" experiences that can "feel" new team members with knowledge. It can also help reduce/neutralise the occurrence/recurrence of the 5 "triggers" of fatigue (worry, worry, anxiety, apathy, and discomfort).
- **Shared Services-** Employees "want" when they have a "voice" in shaping and improving the variety of services they offer. Addressing the problem at the right time acts as a catalyst in the right context and encourages internal motivation to increase engagement in carrying out assigned responsibilities. Metaverse can solve public service problems by providing a seamless experience, i.e. providing desired solutions through empathetic and knowledgeable avatars who know the employee's professional/psychological profile and "career history" with the organisation.
- **Experience-** The Digital Age has played an important role in ensuring that aspiring talent has the right hands-on experience to avoid being lured by 'brain poachers' in the corporate environment. Metaverse can increase the richness of such experiences throughout the employee's life, for example by creating a "trusted" and "credible" space for team meetings / strategy sessions, envisioning innovation and the beneficial impact of design thinking, and conducting performance reviews more often. intimidating environment. change background setting in open field mode to make avatar mentor/trainer/coach friendly etc. includes online training / learning / development with.
- **Flexible working-** With lessons learned from the recent COVID-19 pandemic, agile working is at the forefront of companies' discussions about optimising talent

management practices. Meanwhile, workers reject the idea of returning to the office after "discovering/rediscovers" the "joy" of working from home. Metaverse can be used as a convenient compromise between the extremes of being "unfortunately trapped" in full-time work and the "isolation" aspect of long-term distance.

- **Mentor Interaction-** Very few employers invest in the development and growth of their employees by formally providing them with competent mentors. As a result, discerning professionals often seek "unofficial" mentors to guide and support them on their career path. Metaverse can be a catalyst for developing stronger connections between Mentors and Mentees as a platform that cuts through the 'institutional noise' to enable open and constructive interactions in 'personal' settings.
- **Exit Interviews-** There is considerable discomfort and anxiety involved in conducting exit interviews, even in the most sophisticated organisations, especially if there is no separation clause. Such exercises should be done in real-time to understand the gaps in the existing processes, find viable improvements and suggest appropriate improvements. Metaverse can facilitate such engagement in a relaxed and calm environment, especially for remote professionals, using friendly avatars, attractive background designs, and an accessible online knowledge bank for reference while maintaining a "respectable" distance.

Tech giants such as Meta, Amazon, Microsoft, Apple and Google have and continue to invest heavily in senior executives with extensive gaming experience; mixed, augmented or virtual reality; and multi-cloud environments - and thanks to the metaverse, HR managers are expected to be equipped to recruit talent regardless of location or current demand. For workers, the metaverse can affect how they work, learn, and interact in the virtual world. The support they need and how it will be delivered so they can be more productive and engaged in their work. The staff group must also provide a system that creates a clear distinction between the personal and professional identities of residents. The "Owner" must be fully transparent about the information collected, its use and its impact. Professional development of employees.

5.2 The metaverse and the future of business

While the concept of metaverse first includes Web3 technology developed by blockchain technology, the future metaverse will in many ways be very similar to our real world and replace some real jobs. Already, some metaverse intangible token (NFT) vendors have made it possible to use their NFTs in some metaverse games, such as apparel and footwear, and others are planning to enter the domain. A large number of NFT enthusiasts are aware of the opportunity to invest in virtual land in such games and sell or rent them at a premium price. The future metaverse can greatly contribute to the development of the virtual economy, which depends on video games and virtual worlds with almost no interruptions. As such, both users and developers have a lot to gain, and it can increase even more if non-game assets (NFTs) are included so that the decentralisation of the virtual economy becomes a reality.

Today we have a nascent metaverse form and digital products like NFTs that represent popular art and digital memorabilia, investors and crypto enthusiasts alike. With major players like Meta entering this space and confidently warning that a new future can be saved, it will take time for other organisations to follow suit. It can rapidly expand the boundaries of the metaverse and unlock unprecedented value for consumers and investors. The future of metaverse includes the idea of working openly, without the barriers of a single community or company, as the participation of creators will be from all over the world, as more brands want to set up shop in a wider metaverse. on the internet today.

5.3 Metaverse in India

Today, India is a fast-adapting country. Will definitely embrace this technology. People are going to be one of the fastest and biggest users of this technology. The Indian

market seems shaky at the moment, when it comes to putting its foot forward to venture into the metaverse. It is why you may think 10 times before making a purchase of the meta device. VR headsets are also prohibitively expensive in India, ranging between Rs 35,000 and Rs 50,000, but that's a completely separate issue. In recent years, technology has advanced more than ever and as a result the number of people buying these devices has increased. However, only 60 percent of former users understand the changing trends of the industry. No consumer will invest in technology they are not familiar with. In India, IT giants like TCS, Infosys and Tech Mahindra have expressed their desire to take advantage of the opportunities offered by the metaverse to provide their customers with what they are looking for. A metaverse powered by digital and mixed reality will be the future of immersive user experience and enterprise customer experience. Although this technology is still in its infancy, it has a lot to offer. Hands down, it's coming. By adding to key sectors such as defense, healthcare or education projects, the Indian government can boost the economy and attract greater technology investment. Project Metaverse is creating big data opportunities for Indian and global companies operating in the analytics space. Virtual tokens (NFT) and games are also released on Web3 as they are adopted by the public. Brands are setting up shop and consumer acceptance of the online shopping experience is in its infancy. Through technological progress, companies can create virtual representations of physical spaces, from factories to offices to auditoriums to conference rooms, which will soon be accessible, affordable, and accessible to all of us. The possibilities for creating custom metaverses and implementing metaverse technology are endless. India will be one of the biggest and fastest in technology when we finally do.

A recently published report said that India ranks fifth in interest in metaverse projects. Part of this interest can be attributed to a young population, growing domestic consumption, a healthy start-up ecosystem and great tech talent. By industry, the game industry dominates the adoption of the metaverse, followed by technology and retail. In the past few months, we have seen young consumers become more creative in their lives. For example, there are some from Tamil Nadu who got married in the metaverse. Interest and use of the technology will only increase over time. Therefore, it is imperative that Indian businesses are prepared for the emerging opportunities in the metaverse, backed by a skilled workforce and relevant service offerings. If the metaverse is to become as diverse as the internet and mobile wireless networks before it, businesses will have to ask themselves some tough questions about how they get there. Metaverse is the technology of the future. And we couldn't do that with yesterday's IT infrastructure. Businesses will not realise the true promise of the metaverse until they move away from traditional IT models and replace them with a modernised and distributed digital infrastructure. The metaverse can only be seen when someone designs a virtual environment and reproduces it using real avatars that will be used and played in the virtual world. This world-building process is typical of game design and visual effects, where vast and realistic environments are created on computers today. Now, some of these are standard AVGC skills such as CG modelling, rendering, textures, and lighting, and artists not only have to learn from scratch, but retrain new real-time workflows to be able to use the gaming platform in real-time. Master new tools like Unreal Engine that will speed up the content creation process ten times.

The key, therefore, is to have short-term industry-oriented training programs that can complement degree and diploma courses by focusing on the latest equipment for students or professionals who are already in the industry, but without the necessary skills in new technologies. This will allow players to retain experienced artists more productive while training them in new workflows.

6. CONCLUSION

This paper contributes to the academic debate on the metaverse by analysing, discussing, and synthesising the existing literature on the topic. This study gives an overview of what has been studied. It identifies three research streams: Metaverse, Metaverse in HR, Future in Metaverse and India is ready or not.

Firstly, the paper sees about broad scope of metaverse about its future possibilities, and how it is working in present situation and then about the pros and cons of metaverse. Secondly the paper sees that how metaverse helps the HR or shows the linkage between the HR functions with metaverse. All those things that must be important as an HR to learn about it. Then thirdly the paper shows that, as India is a fast-growing country, so it will adopt it faster than the other countries already is excepting some of its functions other function will take some time but it will be done soon as metaverse is the term that is totally related to future all the business in future have the impact of this so its better for India to be good in this and be ahead. And as for HR, they need to know more about it as it's necessary tool for employee retention and satisfaction as well. It will provide ease to their employees.

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