



The Metaverse: The Essential Characteristics of “Full Body Immersion” and the Risk of Addiction

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Abstract. With the continuous progress of virtual reality technology, human beings have begun to move toward the Metaverse world, which is the ultimate form of Internet development. The Metaverse becomes the hot topic of the moment. The concept of the Metaverse has not yet formed a unified definition, but as an advanced form of cyberspace, the Metaverse has its prominent feature, namely “full-body immersion”. The full-body immersive experience of Metaverse makes it naturally “addictive”. While bringing “compensation” to reality for its users, will inevitably lead to the risk of addiction. In the development process of the Metaverse, especially in the early stage of development, special attention should be paid to various problems that may be caused by the risk of addiction, and dialectically look at the relationship between the virtual world and the real world.

Keywords: Metaverse · Virtual reality · Full-body immersion · Addicted · Risk

1 Introduction

In October 2021, the well-known social software Facebook officially changed its name to “Meta”, making the concept of the Metaverse begin to enter the public eye and become a hot word at the moment. The definition of the concept of the Metaverse can be traced back to the cyberpunk style science fiction avalanche written by American writer Neal Stephenson in 1992. This book puts forward the two concepts of “Metaverse” and “Avatar”, which describes a virtual space parallel to the real world. All people in the real world can be in the form of a network avatar, Access the online world through VR technology, and live in the virtual space with virtual people.

The Metaverse has not yet formed a recognized definition. At present, there is still little academic research on the Metaverse. Domestic research mainly focuses on the technical design, concept definition, development prospect, and future application of the Metaverse. In the discussion of the concept of the Metaverse, some scholars have summarized its essence and believe that the Metaverse is a virtual space parallel to and independent of the real world, and its essence is a virtual world mapping the real world. As for the relationship between the Metaverse and virtual reality, some scholars further pointed out that the Metaverse is the natural expansion of the virtual environment, virtual

reality determines the expression form of the Metaverse, and virtual human-computer interaction realized through VR technology is the symbol of life in the Metaverse [1]. Some scholars have also summarized the characteristics of the Metaverse and pointed out that immersion is the most important feature of the Metaverse. The Metaverse can carry out all-around alternative virtual for the sensory functions of participants so that participants can achieve the effect of full-body immersion [2]. The rise and development of new technologies are always accompanied by certain risks. Some domestic scholars have also discussed the social risks that the Metaverse may cause, but they mainly focus on the field of philosophy, pointing out that the further advancement of the Metaverse may lead to the spread of nihilism, the crisis of modernity, the stagnation of the evolution of human civilization, etc. [3, 4].

Although there have been discussions on the nature, characteristics, and risks of the Metaverse in the academic community, it is still in its infancy, and the research field is relatively limited. Therefore, starting from the basis of the Metaverse, this paper focuses on the “full-body immersion” feature of the Metaverse and then discusses the risk of addiction caused by this feature.

2 The Essential Feature of the Metaverse

From the perspective of technology researchers, the Metaverse can give people an immersive experience. In the virtual world, people interact through avatars [5], so that people living in the real world can fully experience the other side of the virtual world. a life. The current Internet technology presents digital information in front of us in various forms, provides great convenience for real life, and expands new forms of communication and interaction. The Metaverse is more advanced and mature cyberspace developed by using virtual reality technology. This virtual space is generated by people’s imagination and is an illusion world separated from the physical space, and is stimulated by the Metaverse. The virtual feeling of the virtual space is not limited to sight and hearing but makes people feel in the virtual space as similar to the physical world to the greatest extent. To achieve this “full-body immersion”, the Metaverse must be a virtual world that can deeply participate and immerse the audience, so that people can immerse themselves into digital avatars and get the most real feelings in the virtual world.

3 Addicted to Risk

3.1 The Metaverse and Addiction

Compared with the Internet, the Metaverse is more advanced in that it can achieve the effect of full-body immersion. The more mature the development of the Metaverse, the better the immersive experience of its audience, and even fall into a state of hallucination. On the other hand, the Metaverse has a certain “compensatory effect” on reality, and the goals that people cannot achieve in reality may be easily achieved in the Metaverse. Therefore, the Metaverse has a natural “addiction”, and the risk of addiction is bound to exist. Addiction is a special relationship of continuous attraction between the subject and the object. As far as online games are currently developing rapidly, game addiction

has two dimensions. One is the active participation of the audience, voluntarily entering and maintaining a sustained time investment. The second is that the game framework itself has enough time capacity or repeatability, which can attract players to stay in the game or enter the game repeatedly [6]. Compared with the current online games, the Metaverse not only has entertainment functions, but will even be gradually applied to various fields of social life such as trading, labor, and education. People will invest more time and energy in “living” in the Metaverse, so Satisfy your own needs. At present, the design of most online games is only one-sided, with only limited game scenarios and game rules designed by developers, while the Metaverse is a constructed world in which people experience another life, whether it is time Capacity and repeatability are far beyond online games, and the attraction of the Metaverse to participants can be imagined.

3.2 Manifestations of Addiction Risk

3.2.1 It Is Easy to Have Negative Emotions About the Real World

Although people’s vision is to be able to switch between the virtual and the real freedom in the Metaverse era and realize the chimera of the virtual world and the real world, the virtual and reality cannot achieve complete consistency and integration. As a virtual world, the Metaverse needs to establish various new rules. People carry out their daily activities under the guidance of these rules. When the operating rules of the virtual world and the values people follow are clearly differentiated or even alienated and opposed to the real world, people are immersed in the real world. People in the virtual world will easily have negative emotions such as dissatisfaction, boredom, and hatred in the real world, which will affect people’s normal life in the real world.

3.2.2 It Can Exacerbate Mental Problems

In the Metaverse, the rules of communication that people follow are also different from those in the real world, and members of society can play new social roles and acquire new social statuses. The contrast between the real identity and the virtual identity will make the individual form a new psychological “me” [8], and the excessive attention to the new “me” and the fascination with the way of interpersonal communication in the virtual world may aggravate people’s social fear, in reality, social carding and other psychological problems. The term “social phobia” is increasingly common in current social life. “Social phobia” is a psychological state of social withdrawal, which is an avoidance of face-to-face interpersonal communication [4]. “Social phobia” is becoming more and more common among young people, and as the number continues to increase, it will lead to hidden dangers at the group level. When entering the era of the Metaverse, online social networking will be completely integrated into people’s daily lives, and people will spend more time and energy on interpersonal communication in the virtual world. Will the “addiction” to the Metaverse lead to more serious problems? The “social phobia” caused by a social phobia is a problem that cannot be ignored.

On the other hand, interpersonal communication in the virtual world will dilute the complicated etiquette forms and provide a more free and open platform for its members

to express their opinions. With the widespread application of Internet technology, information is easier to gather in the process of dissemination, forming a public opinion field, resulting in a network “cluster effect”, and groups are more prone to emotional tendencies, irrational polarized behaviors, and repeated cyber violence. It is the embodiment of this polarized behavior. One in five parents worldwide says their child has experienced cyberbullying, according to an international survey by IPSOS [9]. The phenomenon of cyber violence using social media as a carrier is becoming more and more common. This kind of soft violence will cause huge mental pressure on people and seriously affect the physical and mental health of the victims of violence. It provides a very convenient objective condition for venting emotions. With the development of virtual reality technology, when the Internet develops to its ultimate form and human beings enter the Metaverse era, people’s verbal attacks on social media will further develop into physical violence means of “avatars” in the virtual world. The perpetrator’s methods of violence are more diverse, and the experience of violence is more real, which not only easily affects the mental health of the perpetrator, but also causes more serious harm to the victim.

4 Governance Orientation for the Risk of Addiction

4.1 Facilitate the Link Between the Metaverse and the Real World

The Metaverse world can never be completely separated from the real world. Although the ethical and moral standards and legal system norms in the real society cannot be directly applied to the Metaverse world, the governance of the Metaverse must be based on the integration with the real world. In the frequent switching between virtual and reality, there will be different roles in the virtual and real worlds, and these two roles belong to the same subject who needs to bear moral obligations and legal responsibilities. When the responsibilities and obligations of the avatars in the virtual world are traced back to the individuals in the real world, if the rules followed by the virtual world and the real world are completely independent, it will bring great difficulties to social governance. Therefore, based on considering the applicability of traditional rules, it is necessary to establish an effective and reasonable new judgment principle that integrates virtual and reality. Although the Metaverse is virtual, it cannot be completely separated from the real world because of its virtuality.

4.2 Preventing Individuals from Spiritual Dependence on the Metaverse

Over-reliance on the Metaverse world can lead to the erosion of the real world by the Metaverse. The current “game anti-addiction” policy for minors may not be applicable in the future Metaverse world, and the addicted group will not only be minors. When most participants rely on the Metaverse, The implementation effect of the policy will be significantly weakened. This requires taking precautionary measures in the early stages of Metaverse development, and pre-restricting it through mandatory laws and regulations.

5 Conclusions

The emergence of the Metaverse is the result of the rapid development and progress of virtual reality technology, which provides the possibility for the change of social lifestyle, which can bring people a beautiful reverie of the ideal world, and turn each possible world into a real world. However, while the Metaverse brings us a more authentic immersive experience, there is also the possibility of causing addiction risks and developing into new social problems. As the Metaverse is increasingly recognized and accepted by the public, various Metaverse platforms have emerged one after another. Therefore, it is even more necessary to layout the governance rules of the Metaverse in advance, actively take preventive measures, and pre-limit through legal means to ensure the development of the Metaverse. Set up the right development track from the beginning.

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