



Metaverse Etkinlik Deneyiminde Dalma: Bir Gömülü Teori Çalışması

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Özet

Giriş ve Amaç: Literatürde daldırma (immersion) ile ilgili çalışmalar bulunmakla birlikte, yeni bir sanal ortam olarak nitelendirilen metaverse dünyasında ve özellikle metaverse etkinlik deneyimlerinde daldırma olgusunu ele alan çalışmaların sayısı neredeyse yok denecek kadar azdır. Bu bağlamda, metaverse etkinlikleri/oyunlarında daldırma olgusuna odaklanma bağlamında literatürde bir boşluktan bahsedilebilir. Bu nedenle, bu çalışmanın amacı, NBA 2K23 metaverse etkinliğini deneyimleyen kişilerin algıladığı daldırma olgusunu ortaya çıkaran teorik faktörleri ortaya koymaktır. Çalışmanın sonuçları teorik ve pratik çıkarımlara sahip olabilecektir.

Yöntem: Nitel araştırmalarda yaygın olarak kullanılan amaçlı örnekleme yöntemiyle belirlenen ve NBA 2K23 metaverse etkinliğini deneyimleyen 21 (12 erkek, 9 kadın) yetişkinle yarı yapılandırılmış görüşmeler gerçekleştirilmiştir. Örneklem büyüklüğünün belirlenmesinde Creswell (1998) tarafından vurgulanan veri doygunluğu esas alınmıştır. Analiz süreci, gömülü teori yöntemi yaklaşımı (Charmaz, 1983; Strauss ve Corbin, 1990) çerçevesinde gerçekleştirilmiş; her bir transkript kodlanırken sürekli karşılaştırmalı analiz uygulanmıştır; kodlanan her bir vaka benzer kodlanmış vakalarla karşılaştırılarak kodlar ve temalar oluşturulmuş, veriler azaltılarak teorik örneklendirmeler yapılmıştır. Geçerlilik ve güvenilirlik için Creswell (1998)'in araştırmanın kalitesini artırmaya yönelik önerdiği kriterler kullanılmıştır.

Bulgular: Metaverse etkinliği deneyiminde kullanıcıların daldırma algıları altı boyutta ele alınabilir: Akış, Anlık Haz, İllüzyonel Vizyon, Görsel Haz ve Kişisel Özellikler. Akış; bireyin oyuna dalarak zamanın nasıl geçtiğini anlamadığı boyutu ifade etmektedir. Bu boyutta, kişi mevcut güncellemeleri, gelişmeleri ve yenilikleri kaçıracağını düşünerek bir korku durumuna düşer. Anlık haz; bireyin oyunu oynarken yaşadığı duygu ve haz olarak değerlendirilirken, "Yanılsamalı Görü" oyun ile gerçeklik arasındaki karşılaşma olarak tanımlanabilir. "Görsel Haz" boyutunda ise, oyundaki görsel bir olay, oyundaki gösteri ve iyi aksiyonlar nedeniyle bireylerin tatmin olması ifade edilmektedir. Son olarak, "Kişisel Özellikler" boyutunda, bireyin yarattığı aktör ve kendi özellikleri değerlendirilmiştir.

Sonuç: Bu araştırmanın bulguları, metaverse dünyasında daldırmayı belirleyen faktörler konusunda teorik ve pratik çıkarımlar sağlamaktadır. Literatürde daldırma ile ilgili mevcut olan akış ve kaçış gibi faktörlere ek olarak; görsel haz, yanılsamalı görü ve kişisel özellikler de var olduğu bulunmuştur. Metaverse ile ilgilenen yöneticiler veya oyun/uygulama tasarımcıları, daldırma ile ilgili vurgulanan bu faktörlerin farkında olmalı ve kullanıcıları/tüketicileri cezbetmek ve onları ortamda tutmak için stratejiler ve yaklaşımlardan yararlanmalıdır, bu da başarı için yararlı çerçeveler çizebilmektedir.

Anahtar kelimeler: Metaverse, NBA2K23, Dalma.

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Immersion In Metaverse Event Experience: A grounded Theory Study

Abstract

Introduction and Aim: There are studies on immersion in the literature; however, the number of studies dealing with the phenomenon of immersion in the metaverse world, which is characterized as a new virtual medium, and in metaverse activity experiences in particular, is almost negligible. (1) In this context, a gap in the literature can be mentioned, especially in the context of focusing on the phenomenon of immersion in metaverse activities/games. Therefore, the aim of this study is to reveal the theoretical factors that reveal the immersion phenomenon perceived by people who experience the NBA 2K23 metaverse event. The results of the study may have theoretical and practical implications.

Method: Using grounded theory, semi-structured interviews were conducted with a sample of 21 (12 male, 9 female) adults who experienced the NBA 2K23 metaverse event. Purposive sampling, which is widely used in qualitative research, was used, and the determination of the sample size was based on data saturation, which was underlined by Creswell (1998). The analysis process was carried out within the framework of the grounded theory method approach (Charmaz, 1983; Strauss and Corbin, 1990); applied with continuous comparative analysis while encoding each transcript; Codes and themes were created by comparing each coded case with similar coded cases, reducing data and making theoretical exemplifications. For validity and trustworthiness, Creswell (1998)'s criteria suggested to increase the quality of the research were used.

Findings: Users' perceptions of immersion in the metaverse event experience can be addressed in six dimensions: Flow, Instant Pleasure, Illusional Vision, Visual Pleasure, and Personality. Flow; The individual's immersion in the game expresses the dimension in which he does not understand how time passes. In the dimension, the person falls into a state of fear, thinking that he will miss the current updates, developments and innovations. Instant gratification; While the individual is evaluated as the feeling and pleasure he experiences while playing the game, the "Illusional Vision" can be defined as the confrontation between the game and the reality. In the dimension of "Visual Pleasure", it is the satisfaction of individuals due to a visual event in the game, the show in the game and good actions. Finally, in the dimension of "Personal Traits", the individual was evaluated as the actor he created and his or her own characteristics.

Conclusion: The findings of this research provide theoretical as well as practical practical implications for the factors that determine immersion in the metaverse world. In addition to the factors such as flow and escape, which exist in the literature related to diving; visual pleasure, illusionary vision and personality traits have also been found to exist. Managers or game/application designers who are interested in the Metaverse should be aware of these underlined factors related to immersion and benefit from strategies and approaches that will attract users/consumers and keep them in the environment, which can draw useful frameworks for success.

Keywords: Metaverse, NBA2K23, Immersion.

Introduction

The phenomenon that helps to give the feeling of being in real life by going beyond the physical world and creating a new space, a new character or avatar, is called "Metaverse". This term was used for the first time in "Snow Crash", written by Neal Stephenson, a science fiction writer, in 1992. The Metaverse phenomenon created by Stephenson has created a large and densely populated world parallel to our world (Demir et al., 2023). Individuals create avatars specifically for themselves to take their place in the created parallel world. While taking their place in the virtual world, they wear VR (virtual reality) glasses. VR glasses are a piece of metaverse equipment that provides individuals with the illusion of reality in a parallel universe, aiding immersion and helping them spend hours intertwining two worlds. Like VR, AR (augmented reality) is defined as a technology that helps all activities carried out with the help of technology take place in a 3-dimensional universe. The real world environment is displayed by AR, and development is provided with animations or texts. Generally, these developments are with AR-supported applications, they can be carried out with the help of equipment such as smartphones, tablets or smart glasses (Buana, 2023). In our age where technology is rapidly developing, there is a contemporary breakthrough in terms of spatially, impressive technologies such as virtual reality and augmented reality (Mystakidis, 2022). In line with all these emerging technologies, the main focus of our research is the place of the metaverse, the impact of virtual reality on games, and the extent to which players immerse themselves in the game.

In today's world, the use of virtual platforms is significantly increasing, with users striving to maximize their experiences as substantial changes and advancements take place in the virtual realm. Ash (2015) emphasizes the importance of technological transformation, suggesting that individuals are increasingly engaging with various digital interfaces, leading to a sense of being "surrounded" by the digital environment. Among these platforms, which encompass transformations and innovations, the most prominent are augmented reality, mixed reality, extended reality, and the metaverse, each representing an evolution of virtual reality (Argan et al., 2022).

The metaverse, in particular, emerges as a pivotal concept in the next generation of the internet, aiming to create a fully immersive, hyper-spatiotemporal, and self-sustaining virtual environment. This space is designed to support a wide range of activities, including gaming, working, and socializing (Wang et al., 2022). Although there is limited consensus on what exactly constitutes the metaverse, it has undeniably attracted significant investment from major corporations. Leading tech companies such as Google, Microsoft, Nvidia, and Meta have allocated billions of dollars towards the development of the hardware, software, and infrastructure necessary to power the metaverse (Hadi et al., 2022).

The COVID-19 pandemic further accelerated engagement in virtual and cyber spaces, prompting companies like Facebook (later rebranded as Meta), Microsoft, and Apple to realign their strategic plans to enter the metaverse era (Lee et al., 2021). Some industry experts predict that the metaverse market could reach a valuation of \$800 billion in the coming years and potentially generate over \$1 trillion in GDP (Bloomberg Intelligence, 2021; Tong, 2022).

Despite the diverse opportunities presented by the metaverse, gaming has emerged as the dominant activity in this virtual space (Demir et al., 2023), with current systems primarily catering to e-sports competitions (Lin et al., 2023). However, while lite versions of the metaverse exist, they remain far from realizing the full vision of a fully immersive, embodied, and interoperable virtual environment (Xu et al., 2022). Recent studies highlight this reality, noting that although metaverse gaming initiatives are still in their early stages, there is strong optimism that they will reach more advanced levels in the future (Demir et al., 2023). Today, with the increasing popularity of digital events, the concept of the metaverse has taken on a remarkable significance. The introduction of this study highlights why exploring the metaverse is both compelling and relevant, particularly in the context of NBA 2K23. Despite its growing prominence, the literature review revealed a research gap: no study has yet examined NBA 2K23 within the metaverse framework. This study aims to address that gap by revealing the perceptions that adult participants form while experiencing the NBA 2K23 metaverse event, using an approach grounded in theory.

From a theoretical perspective, this research will provide a framework to understand individuals' levels of immersion. Specifically, it will explain the basic elements of immersion in NBA 2K23, a metaverse game based on individuals' basketball experiences, and explore how these immersive elements interact in different situations. This framework will enhance our understanding of immersion's potential, especially in relation to basketball, and serve as a foundation for future research.

From a practical perspective, the study offers concrete suggestions for further studies on the metaverse. It will help sports organizations and brands take strategic steps by showing how metaverse games impact individuals. This will enable sports industry authorities to use the metaverse more effectively and efficiently. Ultimately, understanding the effects of metaverse activities on our mental functioning is crucial, both academically and practically. The current research is expected to contribute significantly to the metaverse field, which is attracting considerable interest from researchers today.

Literature

Research on the concept of immersion exists, but its examination in virtual games like the metaverse remains limited. This study aims to address this gap concerning immersion.

The research also investigates dimensions such as flow, immediate pleasure, illusory vision, visual enjoyment, and personal attributes. A review of the literature indicates that these aspects have been either inadequately addressed or not addressed at all, and this study seeks to fill that gap.

In terms of user experiences, this study provides a detailed analysis of how users' experiences influence immersion and offers practical insights for game or application developers regarding strategy and content design.

Lastly, regarding theoretical and practical implications, this research offers theoretical answers to questions about how immersion is formed and which factors are influential within the metaverse context. Practically, it aids content creators in developing content that aligns with users' preferences.

Metaverse

The term metaverse is a compound word consisting of the words "Meta" (a Greek prefix meaning after or beyond) and "universe." In other words, the Metaverse is a post-reality universe, a continuous and persistent multi-user environment that combines physical reality with the digital virtual world (Mystakidis, 2022; Mystakidis et al., 2023). In recent years, the Metaverse concept has attracted great attention (Ning et al., 2023; Xu et al., 2022; Belk et al., 2022; Christodoulou et al., 2022; Dwivedi et al., 2022; Gadekallu et al., 2022; Hackl et al., 2022; Lee et al., 2022).

Metaverse is a combination of the words "meta" and "universe" and refers to a three-dimensional virtual world in which avatars participate in political, economic, social, and cultural activities. People also widely use the meaning of a virtual world based on daily life, where the real and the surreal coexist (Choi and Kim, 2017). Neil Stephenson first used the term metaverse in his 1992 science fiction novel *Snow Crash*, describing a world where virtual and reality interact, creating value through various social activities (Stephenson, 1992). The work depicts people interacting through avatars on the street, a space belonging to a single organization. From this point on, many stories, films, and other works of art and entertainment have emerged about the struggle between virtual worlds and the dystopian control of machines and human anarchist-liberationists. In September 2021, Facebook founder Mark Zuckerberg announced that Facebook's vision would revolve around an extremely ambitious "metaverse" project, and that its icons would turn into infinity signs, thus drawing everyone's attention to the metaverse (Demir et al., 2023). Because the scope of the Metaverse is broad and constantly growing, there are a variety of definitions and similar concepts. Lee et al. (2011) classified concepts such as life record keeping, mirror world,

augmented reality, and virtual world according to whether the applied field is reality-oriented or virtual-oriented and whether the applied information is external environmental information or individual-centered. Although previous studies have generally focused on the structure of the virtual world (e.g., games), the Metaverse has recently been referred to as an environment that facilitates contextual interest and social interaction. Additionally, Kim (2021) describes the common features of many definitions of the metaverse, continuity of identity and objects, a shared environment, the use of avatars (embodied self), synchronization, three-dimensional (or virtual), interconnectivity, an interactive, immersive and social user experience.

Immersion

Immersion has been described as a sense of spatial and temporal belonging to the world, characterized by deep involvement in the present moment (Hudson et al., 2007).

In another definition, immersion is defined as the illusion that users using digital media technology replace their sensory stimuli with virtual sensory stimuli (Argan et al., 2022). For example, although the user knows that he is at home, he feels like he is on the field in the virtual reality game. Metaverse users are generally individuals who are dissatisfied with internet access and want to be directly involved in it (Ball, 2022). The metaverse's ability to draw users in is one of its most unique features. If the user feels himself/herself there, especially in the environment simulated by technology, and produces a realistic experience, this is defined as immersion (Bowman and McMahan, 2007).

Immersion is what successful metaverse events have in common. It is defined as individuals who want to get away from daily work and worries, lose themselves in the real world thanks to computer games, find themselves in the virtual world, and do not hear even if they are called during the game (Jennet et al., 2008).

Immersion is a critical feature because it helps create a sense of presence in users, giving them the psychological experience of “being there” (Cummings and Bailenson, 2015). Specifically, there are two critical steps to creating a “reasonable space.” The first of these is to facilitate a sense of presence in a digitalized environment, while the second critical step is to immerse the user in this space (Cummings and Bailenson, 2015; Cummings and Wertz, 2018). Therefore, in general, the more immersive the experience, the more likely the individual is to feel a sense of presence in the mediated environment (Bowman and McMahan, 2007; Slater and Wilbur, 1997).

Materials and Methods

Research Design

In this study, an in-depth interview technique was used as the data collection method, and an interview form based on user reporting was used. Semi-structured interviews were conducted with a sample of adults who experienced the NBA 2K23 metaverse event between May 10 and June 15. Using the purposive sampling method, which is widely used in qualitative research, in-depth interviews were conducted with the participants who experienced the NBA 2K23 event, in accordance with the nature of the grounded theory method (Strauss and Corbin, 1990).

Data Collection

The interviews lasted between 27 and 60 minutes. In addition, by using the interview form based on user reporting, this form was given to people who experienced the game, and they were asked to answer the open-ended questions in this form after experiencing the game when they were most comfortable. The interviews were conducted by the first author between the specified dates. Observational field notes were taken for contextual features, atmosphere, and non-verbal expressions such as facial expressions, fear, and smiles to support the questions asked. Before the interview, all participants were informed that participation in the study was voluntary and that they could leave the study at any time, and verbal or online consent was obtained from the interviewers.

Table 1. Information on Demographic Characteristics of Participants

Participant	Gender	Age	Education	Section	Experience
savageralt	M	20	Licence	Sports Management	N
starbury	M	39	postgraduate	Recreation	Y
KarabulutZHIn	M	20	Licence	Sports Management	N
gao	M	31	Associate Degree	Medical Imaging	Y
Ritata	M	33	Licence	Aviation	Y
WenoM	M	27	Licence	Public relations	Y
Anaconda	M	29	postgraduate	Sports Management	Y
Blade	M	30	Licence	Recreation	Y
ModernCowboy	M	27	postgraduate	Clinical Psychology	Y
nemo	M	35	Licence	Automotive	N
Christmas	M	22	Licence	Coaching	N
insider	M	29	postgraduate	Sports Management	N
brokenangel	F	31	Licence	Physical Education	Y
iLayLay	F	21	Licence	Sports Sciences	N

insideWoman	F	22	Licence	Physical Education	Y
MeliWondo	F	19	Licence	Recreation	N
helloKitty	F	21	Licence	Physical Education	N
GirlOfnoName	F	20	Licence	Physical Education	N
supergirl	F	27	Licence	Software Eng.	Y
redbud	F	37	Licence	Child Development	N
OnlyAs	F	19	Licence	Physical Education	N

Measurement

Based on the literature revealing the VR and metaverse experiences, as well as the researchers' experiences, the interview questions used in the study were: “Can you talk about your NBA 2K23 experiences in general?” “What do you think?” “What parts involved you while experiencing this game/application?” “Why do you think you delve more into these departments?” “What features of the game make you more immersed in the game?” “Why did you dive more into the game in some parts and less into it in others?” “Can you give information about the factors that caused this?” “To what do you attribute the reasons why some parts of NBA 2K23 drew you in?” “Could you elaborate a little more?” “Can you give us information about the relationship between your own psychological structure and the fact that some parts of the NBA draw you in?” “Could you elaborate a little more?” “Color, design, aesthetics, music, character/actor, etc. What do you think about the impact of the elements on your immersion?” “What do you think about the immersion of certain parts of NBA 2K23?” “Did you feel your presence in every part of the game/app?” “Why did you delve more into games/applications in some parts?” and “What are your thoughts on the passage of time, flow or enjoyment in NBA 2K23?” To encourage Metaverse event attendees to elaborate on their experiences, the interviewer asks, “Can you elaborate on this?” He also benefited from probing questions such as: The interviews were recorded or transferred to the written field on the form and transcribed.

Sampling

Determining the participants who will be included in this sample group was based on both the accessibility of the researchers conducting the research to the participants and the participation and volunteering of the virtual reality events. Creswell (1998) highlighted data saturation as the basis for determining the sample size in the study. In other words, data collection was stopped when the new data obtained did not generate new insights into the phenomenon (the saturation point). As

a result of this criterion, there were a total of 21 participants in the study, 12 of whom were men and 9 of whom were women. Between the ages of 19 and 39 (mean: 26.61), 52.38% of them have previous VR, metaverse, and augmented reality (AR) experience. Table 1 shows the characteristics of the participants.

Data Analysis

The analysis process was carried out within the framework of the grounded theory method approach (Charmaz, 1983; Strauss and Corbin, 1990); constant comparative analysis was applied while coding each transcript. Codes and themes were created by comparing each coded case with similar coded cases, reducing data, and making theoretical examples. For validity and trustworthiness, the criteria suggested by Creswell (1998) to increase the quality of the research were used. Validity is defined as the level of measurement of a situation that is intended to be measured and the ability of the measuring tool to measure the desired variable. Research validity, a crucial aspect of scientific research, serves as one of the fundamental criteria that determines the scientific nature of the study (Tutar, 2022). Internal validity is the best available expression of the truth or falsity of an inference (Lincoln and Guba, 1985). The extent to which the research findings align with reality, their compatibility, and their ability to accurately reflect reality are all considered aspects of internal validity. It deals with the question of whether what is measured or observed is really what the researcher thinks (Merriam, 2009). External validity is related to the extent to which the findings can be applied and generalized in other contexts and situations with other participants (Guba, 1981). Reliability is a condition related to the generalizability of research findings. The situation in which a particular measurement tool gives similar results during each measurement. The level of knowledge of the measurement tool on the relevant subject is the reaching of consensus that the measurement has certain standards (Arslan, 2022).

Findings

Analyses made as a result of the interviews show that the experiences obtained from participation in the metaverse game NBA 2K23 can be grouped under five main themes: Flow, Instant Pleasure, Illusory Vision, Visual Pleasure and Personality Traits.

Flow	Instant Gratification	Illusory Vision	Visual Pleasure	Personal characteristics
<ul style="list-style-type: none"> • identification • Don't get too carried away 	<ul style="list-style-type: none"> • Enjoy • Being Satisfied 	<ul style="list-style-type: none"> • Living the Game • Virtual Reality 	<ul style="list-style-type: none"> • Visual Effects • Originality 	<ul style="list-style-type: none"> • Competitive • Ambitious

Figure 1. Themes for “Immersion” in the Metaverse Event Experience

Flow

Many activities are successful because they provide a sense of flow. Streaming is one of the main components of the Metaverse event experience. If the individual engaging in these activities in this medium fails to recognize the passing of time, it can be considered a positive factor contributing to the activity's success (Argan et al., 2022). The Flow theme, which consists of sub-themes such as 'Identification' and 'Immersion', describes how participants forget how time passes while experiencing the NBA 2K23 game, feel lost in the game, and isolate themselves from time and space for a while. The following statements were used by participants to describe this theme:

" When I play, I don't realize how time passes. In fact, I sometimes skip school for this reason ." Xmas, M, 22.

" ...as I played and improved my skill, I started to connect with the game and experience more fun and flow. There were times when I played the game with my friends, and this was a factor in me playing the game ." Anakonda, M, 29

*" The songs are really great. There is music from many of my favorite artists such as Drake and CardiB. That's why I enjoy the music part. The graphics, animations, colors, details down to the actors' tattoos are all top-notch. "*Karabulutzhln, M, 20

" The graphics, the sense of reality it gives while playing, and the similarities of the characters keep me in the game. Looking at the player I'm going to pass the ball to from a distance and saying "uh, James is there" makes me feel more in the game." Nemo, M, 35

*" Time really flies by and it doesn't create a feeling of regret at all, it makes you feel like leaving satisfied. "*Savageralt, E, 20

"I don't even remember how time passed while playing the game, I think it is a good game that is exciting and will never leave you in your tracks. Regarding enjoyment; I didn't expect much from the game, but as I continued and played, I adopted the game and it started to make me happy." iLayLay, F, 21.

"Sometimes I don't notice how time passes in the game because I am completely absorbed by the intense activities in the game. The flow of the game and the achievements are a source of pleasure for me and make the game more enjoyable." insideWoman, F, 22.

Instant Gratification

As pointed out by people who experience metaverse events, when they experience the event, both flow and the mixed feeling of other themes (escape, illusion, etc.) can be achieved through the pleasure felt at the moment of the event (Argan et al., 2022). Participants who experienced the NBA 2K23 metaverse game from this theme, which includes sub-themes such as 'Enjoying' and 'Being Satisfied', stated that they experienced moments of pleasure while playing the game and that they were satisfied with the game. However, instant gratification is not always positive. In some cases, participants also stated that they were in a negative emotional state, but the gaming experience overwhelmingly provided positive emotions. The following statements were used by participants to describe this theme:

"My Career mode is really nice. I see myself as an NBA player by putting myself in the shoes of the character I am playing, and I enjoy doing something that I cannot do in real life. Sometimes, when I make beautiful movements, I can't sit still in front of the screen and feel happy." Anakonda, M, 29.

"Time passing quickly in the game and providing constant match experience, especially during the season, provide a good experience in encountering new opponents and new players. Regarding enjoyment, I felt like I had achieved success when I was able to implement what I thought during the game." Gao, E, 31.

"I generally prefer to play offline, so I play MyCareer, Jordan Challenge, MyLeague. The Jordan Challenge part is the part I especially enjoy playing. It is a pleasure to have the chance to experience the Jordan legend here, which my generation could not watch live but was included in through documentaries etc." Nemo

"Frankly, the game feels very realistic and the fact that I can determine the players' movements, camera angles and tactics myself attracts me. Sometimes it makes me feel like an NBA star and sometimes it makes me feel like the best coach. These satisfy me very much. I can say that the fact that I can do things in the game that I normally cannot do is partly due to the game." Xmas

'In fact, it makes us a little stressed, we experience our sense of excitement more dominantly, thinking about each move, which move to make is something that makes us ponder, in fact, we can experience surprise, huffing and irritation with each move. We should understand that we can be this comfortable and professional in real life, thinking, dreaming, working, I think these will be enough.' 'MeliWondo, F, 19

" Competing and achieving success are sources of motivation for me. Challenges in the game drive me to exert more effort, which provides a psychologically satisfying experience." BrokenAngel, F, 31.

"I liked that NBA2K23 created a realistic game feeling. Being able to create and develop your character is more enjoyable. Having different areas in the game increases the pleasure of playing. The more I played the game, the more I started to like it." Hellokitty, F, 21.

Illusory Vision

Metaverse activity refers to the users' feeling of being together physically and with others in the virtual environment. The reason for defining existence as an illusion stems from the participant's emotion, confusion, and limbo. In fact, researchers have evaluated the experiencers' complex emotions in this context, even though they acknowledge their awareness of the room or metaverse they inhabit (Argan et al., 2022). The themes of 'Virtual Reality', 'Living the Game', and 'Detaching from Reality', which constitute the sub-themes of this theme, represent the illusion here. The illusion here is related to the users being independent from the place they live while experiencing the game, isolating themselves from reality, and getting lost in the virtual world. The following statements were used by participants to describe this theme:

' It is very enjoyable to build my team or create your own jersey or character. With FaceScan, you can upload your picture and integrate yourself there. The character starts from the beginning, can start from college and work its way up to the top. Sometimes I play it because it takes

a long time and is difficult. That's why I play online and play 4 periods of 4 minutes and I lose track of time. That's why it's enjoyable. Hearing the other party's voice connects me to the game more. When I get bored, I create characters and try new ones." Starbury

"Let me put it this way; I forget the time. For example, the last time I checked it was 18:00, the next time I looked it was 23:00 and the biggest factor is that I play the game well and we also meet and play with all kinds of celebrities. Whether it is a football player or a basketball player.. I mean, it has a very wide platform and finally, as I said at the beginning, the build system is great this year. Even the smallest detail can strengthen the character." Karabulutzhln .

"The realism in the game is excellent and its boringness disappears due to the options it offers. It is especially interesting that it is online, you can create your character and there are different game areas. Playing with different people and having different areas in the game is at a high level. I find myself completely living the game." Xmas

"Actually, since I am a bit of an emotional person, I can get attached to things quickly. I usually play games in my free time because it has fun and helps me relax and get away from the stress of real life. NBA comes first among these games. It's exciting to feel like an NBA player and be with the stars there." Anakonda, M, 29.

Visual Pleasure

This theme explains the visual effects and visual effects of the moments of pleasure experienced by the participants while experiencing the metaverse event. By nature, humans choose with the tendency to take pleasure. The greater the tendency to enjoy, the greater the interest will be (Atasoy, 2013). For this reason, as the visual pleasure of the participants increases, their interest in the game also increases. The following statements were used by participants to describe this theme:

" Player faces, fields, jerseys, advertisements, teams are the same as the real thing. The music of the game is also one that moves people. Also, the colors are very sharp and clear. Being able to dress my character in the clothes I want and create the style I want is another influencing factor." Anakonda, M, 29

"As someone who attaches importance to graphics and realism while playing games, I felt that I got the same pleasure in the game as when I watched NBA matches in normal life." Gao, M, 31

"The atmosphere of the game is important to me, and this is the reason why I focus on different parts of this game. I love realism in games..." ModernCowboy, E, 27

"It really has an excellent effects system, I don't know if it is better quality than the visual effects in the previous games, but there are many aspects that I find successful in terms of design and dressing my player the way I want." iLayLay, F, 21.

"The realistic graphics of the game and its ability to create atmosphere draw me in more. Music and character designs also enrich my gaming experience and make me feel more connected." insideWoman, F, 22.

"Realistic graphics, harmonious design and impressive music attract me even more to the gaming world. Character designs and player models increase the realism of the game." brokenAngel, F, 31 .

"The vibrancy of the colors, the general aesthetics of the game and the atmosphere of the music are important factors that impress me. The character designs and the realism of the players contribute to making the game more engaging and enjoyable." superGirl, F, 27.

Personal characteristics

This theme represents the features that users say they have. Users who experience the Metaverse game become aware of some of their existing features during the game and reinforce these features. The following statements were used by participants to describe this theme:

"...the ambition to play against others in mypark encourages people to play the more they play. Regarding my psychological structure, it mostly makes me happy, but at some moments it can make me very angry. I feel happy when I score good points, when I win, or when I play well even if I lose..." Savageralt, E, 20

"It's great that I can improve some of my skills because I play all the time. My very ambitious personality makes me spend a lot of effort to win..."
Xmas, M, 22

"It is necessary to play offline for a while to improve the player. During these times, I tried to improve myself by playing NBA matches and played in this style, trying to get used to the game for a while. Since my desire to win is high, I generally cannot tolerate losing. For this reason, when I play online, I can get angry if the players on my team are bad and the opposing team is good and I lose. But generally I get fun experiences." Anakonda, M, 29

"Since I especially like competitive environments such as career mode in sports games, it gave me the pleasure of progressing towards success that I was looking for." Gao, M, 31

"I can't accept defeat very well. Actually, what attracts me the most is that I get greedy when I lose. This is actually what attracts me the most. The reason why I get into the game so much is, as I said, I love it and I play NBA games the most in my spare time." Karabulutzhln, E.

Discussion and Conclusion, Limitations And Recommendations

The findings of this research provide theoretical as well as practical implications regarding the factors that determine immersion in the metaverse world. In this article, we examine the way users who experience NBA 2K23 as a metaverse game perceive themselves within the metaverse universe, how they express their experiences, especially regarding this event, and the concept of 'immersion' within the game, to what extent the participants connect with the game and immerse themselves in the game while experiencing the game. The results of the study pointed out dimensions that can be grouped under five main themes. These; Flow , Instant Pleasure , Illusory Vision , Visual Pleasure and Personality Traits . The important and original aspect of these research findings is related to terminological dimensions and content that can be expressed as specific to the metaverse universe. In addition to factors such as flow and escape existing in the literature on diving; It has also been observed that features such as visual pleasure, illusionary vision and personality traits exist (Argan et al., 2019; Jennet, 2008). While some of these findings are similar to the literature, new dimensions have also emerged. While these new dimensions constitute the unique aspect of the study, they will also contribute to the literature. In addition, managers or game/application designers interested in the metaverse should be aware of these underlined factors

regarding immersion and benefit from strategies and approaches that will attract users/consumers and keep them in the environment, which will be able to draw useful frameworks for success.

When we look at the studies conducted in the field, it is seen that there are very few Metaverse activity studies related to the phenomenon of 'immersion'. In this respect, the current study fills the gap in the literature. Jennet et al. In his study on the Metaverse event experience related to immersion in 2008, he reached 4 main themes under the headings of 'Cognitive absorption', 'Presence', and 'Immersion: the psychology of sub-optimal experience', in addition to 'Flow', which is one of the existing working dimensions. Hadi et al.'s study in 2022 offers a multidisciplinary perspective on the metaverse universe and focuses on its potential effects on consumer behavior. A conceptualization of the Metaverse is proposed, uniquely defined by the combination of five fundamental elements. It has been stated that one of these basic elements is 'immersion'.

Hamari et al. In his 2015 study, which investigated the effects of flow (operationalized as increased difficulty and skill), participation, and intense participation on learning in game-based learning environments, it was found that participating in the game had a clear positive effect on learning. The difficulty of the game had a positive effect on learning both directly and through increased participation, with being skilled at the game not directly affecting learning but increasing participation in the game. Both the difficulty of the game and being skillful in the game had positive effects on both involvement and immersion in the game. There is similarity between this result and the results of the current study. In the current study, as the actors' acting skills increased, their immersion also increased.

In the study of Weibel and Wissmath in 2011, in which they aimed to compare the concepts of 'presence' and 'flow' by playing 3 games, factor analysis in all three studies revealed that presence and flow are different structures and do not share much common variance. It was concluded that presence refers to the feeling of being there in the mediated world, whereas flow refers more to the feeling of being involved in the game action, and further analysis showed that flow and presence depend on motivation and immersive tendency. According to these results, flow can be considered a predictor of diving.

Cairns et al. (2014) stated that when different psychological abilities such as attention, planning and perception are combined in a game, they create a combination that leads to a focused state of mind, and in this case, players are less aware of the world around them and become absorbed in the game. This result is parallel to the findings of the current study. However, this understanding forces us to ask other questions. What exactly are the psychological functions

involved in immersion? What is the best balance of these functions for immersion? So how can games achieve such balance? The necessity of answering such questions becomes apparent.

Finally, although Metaverse studies are almost non-existent in the field of sports and recreation, there are many scientific examples (Arıcı, 2013; Emmelkamp and Meyerbröker, 2021; Hamilton et al., 2021; Lee and Kim, 2018; Ma et al., 2011; Smith et al., 2014; Topuz, 2018; Webel et al., 2013).

The theoretical and practical implications of this study can be examined under three headings:

1. Expanding individuals' existing understandings in line with their experiences in Metaverse activities;
2. Providing new insights into how the main and sub-themes that emerged in line with individuals' experiences can be used during the application;
3. Pay attention to the use of the metaverse in new games/content to be produced by sports industry authorities.

This research on the first topic can contribute to the development of knowledge and literature on metaverse events and the experience of participating in these events. It can also reveal the potential effect of understanding regarding experiences gained in metaverse activities in different areas. From a broad perspective, in addition to the theoretical knowledge of the study findings, it also creates opportunities for new research, both qualitative and quantitative. The second title is from Davis et al. (2021) emphasize, increased experience with metaverse environments will help suggest additional design features. In terms of the last title; Sports industry authorities can enable individuals to highlight their products/services by placing advertisements on the media they participate in, using the metaverse, and help them deliver their products/services to larger audiences more quickly and with recognition. The findings obtained as a result of this research may provide guidance on taking into account the determining factors when creating a virtual reality environment. To give an example, the element of immersion can play an important role in developing some strategies in order to ensure that the individual participates in activities with his/her avatar in the parallel universe by taking pleasure in it, without any boredom for the individuals, and to ensure that they stay actively there for hours in the environment as a result of the pleasure they receive.

Limitations And Recommendations

Although the current research has made significant contributions to the literature in the context of metaverse activities within the scope of the phenomenon of 'immersion', it can be stated that, as in many qualitative studies, there are limitations regarding the size and representativeness of

the sample consisting of a limited number of participants using the purposeful sampling method. The results of the study are limited due to the nature of qualitative research and the sample size.

In the conducted study, only qualitative research method was used. In other studies, different information can be obtained by not only conducting qualitative research, but also by conducting quantitative studies according to the game category choices of the participants.

Only users living in Turkey were included in the study. For other studies to be carried out, adding users from different countries and expanding the sample will allow different opinions and different results to be obtained.

Additionally, this study focused only on the NBA 2K23 game. Using FIFA or PES games can reach more users.

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