



ADYAMAN ÜNİVERSİTESİ SOSYAL BİLİMLER ENSTİTÜSÜ DERGİSİ
ISSN: 1308-9196 / e-ISSN:1308-7363

Yıl: 16 Sayı : 45 Aralık 2023

Yayın Geliş Tarihi: 05.09.2023 Yayına Kabul Tarihi: 11.12.2023

DOI Numarası: <https://doi.org/10.14520/adyusbd.1355736>

Makale Türü: Araştırma Makalesi/Research Article

Atıf/Citation: Ünüvar Ünlüoğlu, D. (2023). Is History Repeating Itself? #Womaninmetaverse. *Adiyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (45), 324-352.

IS HISTORY REPEATING ITSELF?

#WOMANINMETAVERSE

Dilara ÜNÜVAR ÜNLÜOĞLU*

Abstract

The rapid advancement of digital technologies and the emergence of the metaverse have significantly transformed the ways in which individuals communicate, interact, and express themselves in virtual spaces. As the metaverse has become an increasingly integral part of modern society, the representation of gender, particularly women, in these digital realms has gained importance. This research aims to explore the multifaceted evolution of the female figure in the metaverse, examining representations, identity construction, and the socio-cultural and socioeconomic implications of these virtual personas. The methodology of the study adopts a phenomenological design, is exploratory in nature, drawing heavily on secondary data and empirical information, and utilizes descriptive analysis to explore the meaning that individuals attribute to the world they live in, with a particular focus on problems in the context of behavioral sciences. Through a comprehensive interdisciplinary analysis, the research sheds light on how the depiction of the female figure has evolved, the determinants individuals use to shape their digital identities, and the potential impact on real-world gender dynamics. As one of the pioneering works on gender effects in the MV, our findings shed light on how the seeds of gender inequality are still being sown in different forms in the newly created digital world.



Öğr.Gör. Dr. Eskişehir Teknik Üniversitesi, Ulaştırma Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü. dilaraunuvarunluoglu@eskisehir.edu.tr, Eskişehir/Türkiye.

Keywords: Metaverse, gender, digital world, women studies.

TARİH TEKERRÜR MÜ EDİYOR?

#METAVERSEDEKADIN

Öz

Dijital teknolojilerin hızla ilerlemesi ve metaverse'in ortaya çıkışı, bireylerin sanal alanlarda iletişim kurma, etkileşim kurma ve kendilerini ifade etme biçimlerini önemli ölçüde dönüştürmüştür. Metaverse modern toplumun giderek daha ayrılmaz bir parçası haline geldikçe, bu dijital alemlerde toplumsal cinsiyetin, özellikle de kadınların temsili önem kazanmıştır. Bu araştırma, metaverideki kadın figürünün çok yönlü evrimini keşfetmeyi, temsilleri, kimlik inşasını ve bu sanal kişiliklerin sosyo-kültürel ve sosyoekonomik etkilerini incelemeyi amaçlamaktadır. Fenomenolojik bir yaklaşım benimsenen bu çalışmada, ağırlıklı olarak ikincil veriler ve deneysel bilgilerden yararlanarak keşifsel bir analiz yapılmakta ve özellikle davranış bilimleri bağlamındaki sorunlara odaklanarak bireylerin yaşadıkları dünyaya yükledikleri anlamı keşfetmek için kullanılan betimsel analizden yararlanılmaktadır. Araştırma, disiplinler arası kapsamlı bir analiz yoluyla, kadın figürünün tasvirinin nasıl geliştiğine, bireylerin dijital kimliklerini şekillendirmek için kullandıkları belirleyicilere ve gerçek dünyadaki toplumsal cinsiyet dinamikleri üzerindeki potansiyel etkiye ışık tutmaktadır. MV'de toplumsal cinsiyet etkileri üzerine öncü çalışmalardan biri olarak bulgular, yeni yaratılan dijital dünyada toplumsal cinsiyet eşitsizliğinin tohumlarının farklı biçimlerde nasıl atılmaya devam ettiğini tespit etmiş durumdadır.

Anahtar Kelimeler: Metaverse, toplumsal cinsiyet, dijital dünya, kadın çalışmaları.

1. INTRODUCTION

The unstoppable advance of technology has given rise to various digital environments encompassing a spectrum of experiences ranging from games to social networks to augmented reality. These environments not only mirror our physical world but also offer new dimensions where imagination intersects with the tangible. The metaverse (MV), a vast and interconnected digital environment, has led to a paradigm shift in humanity's use of technology, social interaction, and self-expression.

The concept of the MV, which originated in the 1980s but has had an increase in popularity in recent times, is a composite phrase derived from the fusion of transcendence (meta) and universe. The MV refers to a science fiction realm initially introduced in the novel *Snow Crash* (Stephenson, 1993). In contemporary times, the phenomenon of the MV has manifested itself in diverse representations within our immediate surroundings. Four underlying factors contribute to this phenomenon. The incorporation of technology breakthroughs, such as the implementation of 5G networks and the utilization of 3D rendering techniques, has significantly enhanced the visual quality of music videos, hence creating a heightened sense of realism for viewers. Furthermore, the advent of high-speed Internet connectivity has facilitated uninterrupted access to multimedia content, enabling individuals to fully appreciate the MV experience without encountering any latency issues. Furthermore, there has been a notable surge in the need for non-face-to-face services, particularly in the aftermath of the COVID-19 pandemic. Thirdly, the emergence of Generation Z, a cohort characterized by their innate familiarity with digital technology, has exerted a significant impact on cultural consumption patterns, leading to notable transformations. Furthermore, the

widespread presence of mobile devices and the evolution of content formats have facilitated individuals' ability to access the MV at any given time and anywhere (Ko et al., 2021).

For all these reasons, the increasing interest of individuals in digital worlds has recently taken its current form with many milestones, such as the rapid development of technology and the improvement of virtual reality experiences, making MV such a space that encompasses both reality and unreality across the various aspects of politics, economy, society, and culture. In this respect, it is possible to think of virtual reality (VR), augmented reality (AR), blockchain, cryptocurrencies, the Internet of Things (IoT), and artificial intelligence (AI) as the core technologies that constitute MV. With all these various tools, MV today allows societies to provide social interaction, commerce, education, and many other needs in a digital environment.

Individuals can have interactive gaming experiences in entirely virtual worlds, create virtual avatars, interact socially with other users, shop in virtual stores, have interactive experiences in online classrooms or educational environments, and discover and/or design artworks in virtual galleries. It has become feasible within the context of the MV world to establish a virtual environment that closely resembles reality and offer it at a reduced expense. The MVs have the potential to challenge prevailing conceptions of race, gender, and disabilities (Duan et al., 2021), hence stimulating scholarly curiosity over their possible applications (Parmaxi, 2020). The gender perspective, which has been felt in many sociological, economic, or cultural fields in almost all segments of societies in this world that have been inhabited for centuries, may also be taking seed in the new (digital) world order that is now being built from scratch in front of the eyes of all humanity. As MV provides unprecedented latitude for self-expression and identity negotiation, the contours of gender, often laden

with historical and cultural significance, are emerging within this digital world in ways that both reflect and challenge real-world paradigms. In other words, from the primitive graphics of early video games to the uncanny realism of contemporary avatars, the trajectory of the depiction of the female figure reveals a journey full of complexities and nuances.

Therefore, within this complex tapestry, the representation of gender and its interaction with identity formation has come to the forefront, leading to a comprehensive exploration of the evolution of gender. In this context, portraying gender identities within MV, particularly the portrayal of the female figure, is considered important. This paper attempts to shed light on the dynamic interplay between technology, culture, labor markets, and MV in terms of gender representation. By examining the picture of the female figure in MV through an interdisciplinary lens that draws on different fields such as sociology, psychology, economics, and media studies, this paper explores the transformative potential of these digital personas and the profound socio-cultural implications they carry beyond the boundaries of virtual realms. By navigating this complex terrain, we hope to shed light not only on the subtleties of gender portrayal in digital spaces but also on the capacity of MV to reshape our understanding of identity, empowerment, and the narratives in which we live. The findings are crucial in illuminating the current state of digital evolution and the horizons of transformative potential and ethical imperatives that lie ahead.

This study aims to uncover the complex interplay of gender representations within technology, labor markets, culture, and MV. As MV offers unparalleled freedom for individuals to express themselves and reflect on their identities, complex historical and cultural dimensions of gender emerge in ways that reflect and challenge real-world patterns. This cross-country study draws on

sociology, economics, psychology, and media studies to examine the representations of female figures in MV and explore the transformative potential of these digital identities. It also emphasizes that virtual worlds have profound socio-cultural and socioeconomic implications that transcend their borders. In navigating this complex space, it is important to focus not only on the subtleties of gender representations in digital areas but also on the capacity and potential of MV, as it will reshape our understanding of identity formation, personal empowerment, and the stories woven around us. The study is organized as follows to achieve the research goals. Firstly, the literature review is given with a background from different fields. Secondly, the research design and methodology are described in detail. Thirdly, the evaluations and a discussion of the findings in relation to women in the digital world are shared for a clear outlook on the issue.

2. LITERATURE REVIEW

The representation of gender in digital spaces has been the subject of scientific research in various disciplines. It has become a field that intersects fields such as technology, culture, labor, and identity construction. A literature review on this topic reveals that gender is a significant predictor.

First, Haraway's concept of the "cyborg" (1991) resonated deeply in the MV context, where the digital world brings together human and technological elements to shape the digital personalities of its users. Similarly, Turkle (1995), a pioneering voice in the study of technology and identity, explored how technological advances in graphics facilitate a greater sense of emotional attachment and self-expression by examining the emotional bonds users form with their avatars. Indeed, the emergence of customizable avatars in role-

playing games heralded a new era of identity exploration, giving users unprecedented authority to shape their digital personas (Turkle, 1995).

Research by Jenkins (2003) and Nakamura (2002) has shed light on the perpetuation of gender stereotypes and reinforcement of traditional norms by examining gender dynamics in video games. Early video games, such as the iconic "Donkey Kong" and "Pac-Man" were thought to reflect the dominant cultural norms of the time, with female characters often reduced to damsels in distress or secondary roles (Jenkins, 2003). While Jenkins' research highlighted the prevalence of male-centered narratives and the marginalization of female characters, Nakamura's work revealed the complex interplay between race, ethnicity, and gender identity in online environments.

Subsequently, Castronova's seminal work on virtual worlds (2005) provided a panoramic view of online economies, governance, and social interactions, paving the way for a deeper exploration of how gendered identities manifest in these immersive environments. It is also thought that the ideas of ancient philosophers such as Philo and Aristotle that women are "passive," "material," and "deprived" continue to be imposed through advertising and media in today's consumer society. This is because advertising and media images, in other words, the economic world order, show the female body as an object of consumption and a remarkable element that "must appeal to the eye." The female body appears in advertisements as a remarkable "object" and a decorative part before an audience of women and men. The female body is objectified by transforming it into the shape of a product packaging and sometimes into a decorative element that is "incompatible" with the product and used to attract attention. Through exposure to these forms of representation and images, the female body becomes an object of consumption that is "consumed" not only by men but also by women. On the other hand, the

representation of women in MV is also intertwined with body image concerns and societal beauty standards. Senft's (2008) research on camgirls illuminated the multifaceted dimensions of gender performance and identity negotiation in online spaces, as women use metadata as a platform for agency, empowerment, and economic independence.

Closer to the present day, the impact of MV on social perceptions and real-world behavior is receiving increasing attention. Shaw's (2012) research on gamer identity highlighted the complexity of identity negotiation in virtual communities, highlighting how individuals' self-identification as gamers intersects with gender, race, and sexuality. On the other hand, Chess and Shaw's (2015) research on online harassment, specifically "cyber-misogyny," shed light on the darker aspects of MV and highlighted the need for ethical considerations and measures to counter toxic behavior. The research also underscores the need for careful guardianship, advocating for establishing mechanisms that counter online harassment and protect users from the pitfalls of toxicity. As digital platforms mature, researchers such as Consalvo (2017) have analyzed cheating and advantage-seeking behaviors in video games. While the focus is not exclusively on gender, this work has highlighted the nuanced strategies players adopt to navigate virtual spaces and achieve personal goals. These strategies, often grounded in notions of agency and empowerment, point to the potential for users, including women, to challenge the status quo and assert their presence in digital spaces. In other words, as technology advances and narrative complexity deepens, one can witness a gradual shift away from these traditional archetypes. Games such as "Metroid," for example, have challenged players' assumptions and emphasized the potential for narrative subversion by introducing the enigmatic bounty hunter Samus Aran, whose true gender remains hidden until the end of the game (Consalvo, 2017).

Based on previous studies, there is a correlation between gender differences and the use of social networking sites (SNS) among young individuals. The findings of the study revealed that gender disparity played a noteworthy role in elucidating the phenomenon of content generation on social media platforms. Instagram, WhatsApp, and YouTube are the most commonly utilized social networking sites (SNSs) for instructional purposes among students enrolled in higher education institutions. According to Dikbař Torun (2019), there is evidence to suggest that females exhibit a more favorable and efficient pattern of social media consumption compared to males, as indicated by the mean data and statistical analysis.

All this emerging literature underlines the potential of MV as a dynamic space for identity negotiation, empowerment, and gender role redesign. However, it also underscores the imperative to develop an inclusive and ethical digital ecosystem that respects different identities and minimizes the perpetuation of harmful stereotypes.

3. METHODOLOGY

This research was designed with a phenomenological (social constructivist) approach. Social constructivist (Creswell, 2020) approaches aim to explore the meaning that people give to the world they live in. The research is an exploratory study in terms of its subject of interest. The exploratory research design, as the name suggests, is suitable for mixed-methods research in cases where the first entry into the field is made on a new and current topic or when measurement tools related to the relevant topic or concept are to be developed (Creswell, 2015). Secondary data and empirical information were extensively used within the scope of the research. The findings were analyzed and interpreted with a descriptive approach. The descriptive approach focuses on

the current problems in the world and is therefore based on behavioral sciences rather than theory.

4. 'WOMEN' IN THE DIGITAL WORLD

MV marked a crucial turning point, giving birth to a world of limitless possibilities. The rise of diverse content platforms has also propelled the representation of women into a realm of unprecedented diversity and inclusivity. Individuals have taken the reins of creative control, creating avatars that transcend established gender norms and embody a range of physical appearances (Castronova, 2005). Clearly, this shift has highlighted the transformative potential of MV as a catalyst for challenging traditional gender structures and amplifying underrepresented voices. MV's architecture of agency provides fertile ground for individuals, especially women, to assert their autonomy, challenge prevailing norms, and explore the multifaceted dimensions of identity. As users navigate this digital expanse, they pass through a space where traditional boundaries of selfhood are permeable, and identity becomes a malleable construct that reflects both personal desires and societal influences. Avatars in the digital world are no longer mere representations but extensions of the self that can transcend the limitations imposed by physical reality. The act of freely personalizing avatars is also accepted as a declaration of the right to shape identity.

This empowerment, as Senft (2008) puts it, is one of the powerful offerings of MV. In other words, MV becomes a canvas on which individuals can rewrite the gender script, allowing for fluid transitions between masculine and feminine qualities and providing a space to challenge the rigid binaries that have historically defined gender roles. Women, in particular, navigate the MV landscape with an agency that allows them to transcend societal limitations,

taking on roles ranging from brave warriors to brilliant scientists, and charismatic leaders to intrepid explorers. This liberating potential reconfigures not only the narratives embedded in virtual realms but also the narratives women weave in their real-world lives, reinforcing the idea that identity at its most dynamic is not constrained by the physical but blossoms through the interplay of agency and imagination.

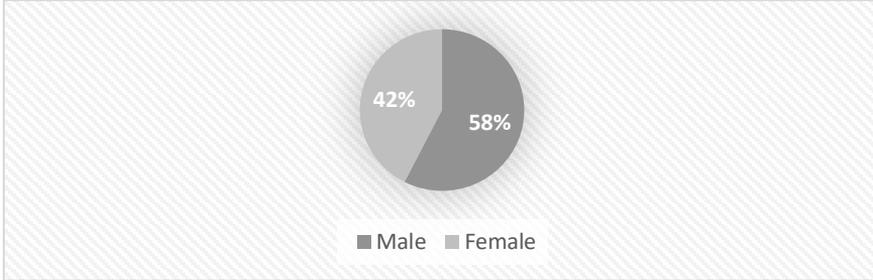
However, this positive picture is not always observed everywhere and for everyone with the same strength. The concept of 'segregation,' seen in almost every aspect of society, also finds its place in the new understanding of 'digitalization.'

The concept of the digital divide refers to the disparity in the availability and utilization of information and communication technologies (ICTs) among various socioeconomic groups, including individuals, households, businesses, and geographical regions (OECD, 2001). Nevertheless, it is important to note that the digital divide is a complex issue that encompasses various dimensions rather than being a simple binary distinction. These dimensions include variables such as access to technology, cost of digital resources, quality and relevancy of available content, and the security of digital platforms (Muller & Vasconcelos-Aguiar, 2022). At this point, if digitalization were a train, this train may not stop at your station (accessibility), the tickets may be expensive for you even though the train stops at the station (affordability), your seat may be uncomfortable even though you bought a ticket (quality), the train may not take you to your destination even though you have a comfortable seat (relevance), and the road to your goal may be risky and dangerous (safety) (Bozyer & Demir, 2023).

In the context of this inequality, an analysis of women's and men's computer and internet usage in Turkey and other regions of the world shows that women

are not competing fairly in this new world order, as seen in Graph 4.1. Graph 4.2., and Graph 4.3.

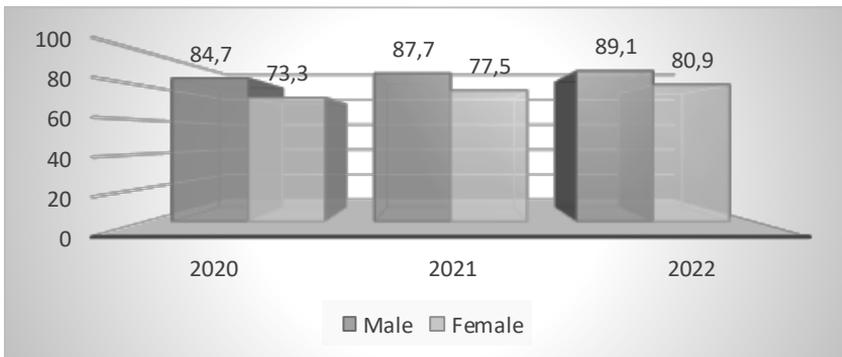
Graph 4.1: Percentage of the computer usage, Turkiye, 2018 [16-74 age]



Source: TurkStat, Gender Statistics, 2022. TurkStat, Information and Communication Technology (ICT) Usage Survey in Households and Individuals, 2005-2022

Graph 4.1 shows the gender distribution of computer use in Turkey. Accordingly, less than 50% of women use computers. On the other hand, 58% of men in the country actively use computers.

Graph 4.2: Percentage of Internet usage, Turkiye, 2005-2022 [16-74 yaş-age]

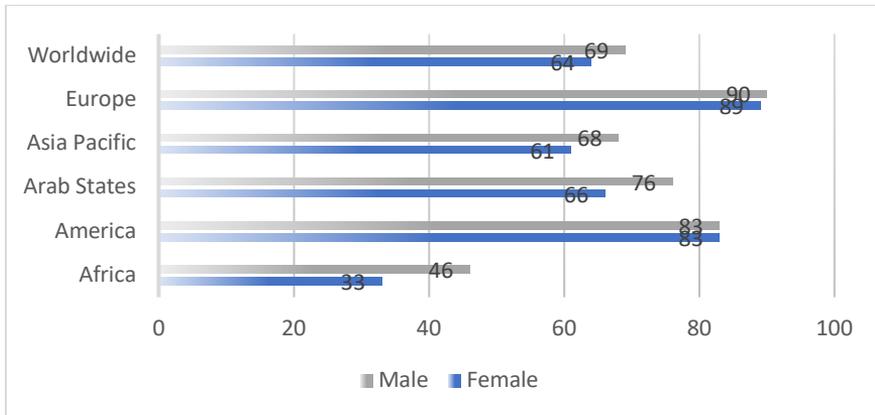


Source: TurkStat, Gender Statistics, 2022. TurkStat, Information and Communication Technology (ICT) Usage Survey in Households and Individuals, 2005-2022

Secondly, at the scale of Turkey, considering that the Internet is no longer just computers, Graph 4.2. shows that women have always used the Internet at a higher rate than men in the last three years. Accordingly, in 2022, 89.1% of men in Turkey will be using the Internet, compared to 80.9% of women. However, when compared to previous years, for example, in 2020, 84.7% of men could use the internet compared to 73.3% of women. In this respect, it is possible to say that the gender gap in internet usage is closing in Turkey as we approach the present day. While this finding may result from the inevitable development of the digital world, this data also indicates that the 'computer' is not much of an obstacle to access to the digital world.

Looking at the situation of the issue on a global scale, the internet usage rates of women and men are close to each other in geographies considered to be predominantly developed. As seen in Graph 4.3, the rates of female and male internet users in European countries and the United States are the same or very close to each other. However, in Africa and the Arab States, the differences between the rates of women and men's internet usage widen.

Graph 4.3: Internet usage rates of women and men (%)

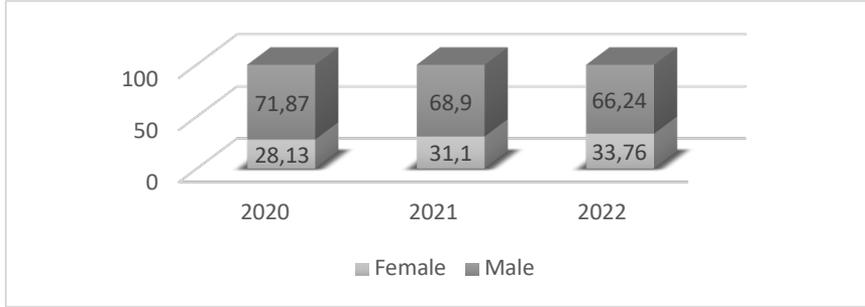


Source: (UNESCO, 2022)

However, gender diversity is as important as gender inequality in the ICT sector. Even in developed countries where women have equal access to computers and the internet, their participation rates in the ICT sector lag far behind men. In other words, the existence of digital segregation by gender, even in developed societies and the leading companies in the sector, shows that social stereotypes have not been moved away, and women are still avoiding jobs considered to be dominated by men. A survey of 150 companies in the sector found that the proportion of female employees was 33% of the total number of employees and 22% in technical jobs (WBA, 2001). In Microsoft, Apple, and Meta, the proportion of female employees in technical positions is 24.4% (Microsoft, 2021), 24.4% (Apple, 2021) and 24.8% (Meta, 2022), respectively.

According to the proportional distribution of bachelor's degree graduates by field in OECD countries, the ratio of female ICT graduates to all female graduates is 1.66%. The same data is 8.22% for men, indicating approximately five times more male ICT graduates than female graduates (WEF, 2022). In addition, when we examine the countries independently, the rate of female graduates in ICT in European countries is between 10-20%. This rate is over 45% in Tunisia, Saudi Arabia, Bahrain, Thailand, and Malaysia (WEF, 2022). There is no complete data on the number of graduates in Turkey, but Graph 4.4. shows the distribution of students placed in undergraduate programs according to gender (YÖK, 2023). Accordingly, the gender distribution of university students studying in the field of ICT in Turkey has been improving in favor of women in recent years.

Graph 4.4: Distribution of ICT undergraduate students by gender in Turkey (%)



Source: (YÖK, 2023)

In other words, according to the average of the last three years, 31.36% of women in Turkey prefer undergraduate programs in the field of information technologies, and this rate shows an upward trend.

Why women do not pursue ICT education even in countries where there is no digital segregation in terms of access to technology is the subject of broader research. Still, it shows that social stereotypes are an obstacle to gender equality. Women's barriers to entering the ICT sector start as early as their school years. In the US, it has been observed that although the majority of girls have higher grades in math and science in high school than their male peers, they do not choose engineering and technology professions due to the prejudice that these are "boys' jobs." It has been pointed out that girls from families with low socioeconomic status feel a lack of self-confidence in entering the sector and have difficulties in their careers due to sexism in the labor market (Hill et al., 2010). Just as women's role was limited to housework and childcare during the transition from hunter-gatherer to agricultural societies, women face digital segregation in today's society shaped by digital transformation.

According to a study on gender diversity by Boston Consulting (BCG) and People of Crypto Lab, 13% of startups have a woman on their founding team, while only 7% have a female founder. In addition to this unfair distribution, investors are four times more likely to back an all-male founding team than an all-female founding team (BCG, 2023). According to a report on primary and secondary market sales by ArtTactic (2021), female artists only have a 16% share of the non-fungible token (NFT) market. In addition, all 19 cryptocurrency billionaires on Forbes' billionaire list for 2022 are men. Another survey on the use of MV technologies found that 41% of women and 34% of men have used an MV platform for over a year. In addition, more women (35%) than men (29%) spend more than three hours a week on MV platforms (Alaghband & Yee, 2022). Within the context of artificial intelligence, it has been observed that only 16% of experts in this field are women. Furthermore, this gender gap increases as the duration of this domain progresses. According to a report by the European Institute for Gender Equality (EIGE, 2021), the proportion of women in the field of artificial intelligence (AI) who possess over a decade of professional experience amounts to 12% of the total AI workforce. Conversely, women who have accumulated between zero and two years of experience in AI constitute a larger proportion, accounting for 20% of AI professionals. According to a report by UNESCO in 2023, the representation of women in technical roles within machine learning businesses stands at a mere 20%. Similarly, the global proportion of women engaged in AI research is reported to be 12%. Furthermore, the representation of women in the field of software development is found to be as low as 6%.

All studies show that women are also underrepresented in the labor markets of the digital world. However, analyzing only labor markets is not enough to understand the extent of the problem. Stereotypes and social norms prevent women from getting acquainted with the sector at the education stage, and

very few women want to study science, technology, engineering, mathematics, and information and communication technologies. Naturally, the proportion of women lags behind men in the labor market, and men representing the sector continue to perpetuate gender norms and stereotypes (Gomez-Herrera & Koeszegi, 2022). Today, while men are leading the digital transformation, women can only find a place in the sector with digital assistants and intelligent robots that look like women (Bozyer & Demir, 2023).

Artificial intelligence has also been tested as proof that gender inequality continues in the digital world. Artificial intelligence was asked to write a short story about a doctor and a nurse. This story creation was requested in the same language (Turkish) each time and was tested 15 times on different days and user accounts. It was observed that the doctor was given a female character in only 3 of the 15 stories created by artificial intelligence. In all of the remaining 12 different stories, the character who is a doctor is given a 'male' name, while the protagonist who plays the role of a nurse is always given a 'female' name. Secondly, for the story that was requested to be written for a character who completes the chores at home after the children go to school, it was observed that in all 15 different essays, the relevant character was given a 'female' name. On the other hand, in 15 different Turkish stories attempting to create a successful manager character, it was determined that artificial intelligence created the main protagonist with a female name in 9 scenarios. This situation, which can also be associated with the word embedding technique, is open to change and can be modified.

With the digital transformation, 'new forms of work of the future' are also emerging. Thanks to technological equipment, existing forms of work have changed and become independent of time and space. In this way, women have started to perform the unpaid domestic labor assigned to them in the work-life

cycle independently of time and space. Thanks to digitalization, it is becoming more possible for everyone to balance the triangle of work, family, and personal life. This leads to new cycles between men and women working remotely from home (UNDP, 2022). At the 21st Eurasian Economic Summit, gender and equality principles in digital transformation were discussed. The existence of women in the digital world has been defined as 'Disruptive Women.' Women in the digital world face many socioeconomic, political, technological, and physical risks. While this new digital world has created a canvas on which users can project their aspirations and dreams, it has also raised concerns about body image ideals and social standards of beauty. In other words, digital transformation triggers the continuation of the existing masculine order and brings many risks for women. Analyses have shown that women lack access to technology, skills, and job opportunities.

In this context, MV is not conceivable as devoid of complexities amidst myriad opportunities and limitless potential for self-determination. While the trajectory of representation here has taken steps toward inclusion and empowerment, the shadow of persistent stereotypes and objectification remains. This dynamic landscape, with its pros and cons, underscores the need for continued critical analysis, ethical considerations, and collaborative efforts to develop an MV that reflects the diverse fabric of humanity. This is because the hyper-realism of avatars, while enabling better self-expression, also risks promoting unrealistic beauty standards and triggering body image concerns, paralleling the impact of offline media on self-perception. Moreover, MV's unique capacity for identity experimentation can lead to the appropriation of identities that can lead to cultural insensitivity or misappropriation. As digital avatars cross cultural boundaries, MV confronts questions of authenticity, respect, and cultural exchange, a debate that requires introspection.

For example, MV's double-edged sword of anonymity also has the potential to magnify issues of harassment and discrimination. Disconnection from real-world consequences can encourage individuals to engage in misogynistic online behavior. Or, when avatars navigate such a rich diversity, cultural insensitivity can occur. Moreover, MV's promise of inclusivity relies on egalitarian representation that transcends gender, ethnicity, ability, and other dimensions of diversity. Still, this vibrancy also requires sharing personal data, which raises complex privacy and security considerations.

As a result, just as gender equality was established at the very foundations of the real modern world and has evolved over the centuries, it is now being built from the ground up in front of our eyes in the digital world that will be tomorrow's reality. Around the world, women are less likely than men in terms of access to this technology and its use, development, and representation.

4. CONCLUSION

In a space where digital landscapes intersect with the contours of human experience, MV radiates ripples far beyond its virtual boundaries. The socio-cultural implications that emerge as avatars navigate this expansive terrain shed a thought-provoking light on the interplay between digital identity and the socio-cultural and economic fabric of the real world. MV takes users beyond the boundaries of societal expectations, and for women, this space allows the freedom to explore alternative aspects of identity. But as the boundaries of MV expand, so do the ethical questions that underpin its evolution. As liberating as this digital environment can be, it can perpetuate certain stereotypes and expectations. Subverting gender norms can inadvertently reinforce existing paradigms. Therefore, the complex relationship between digital participation

and real-world behavior should be explored by examining how digital interactions can shape attitudes, preferences, and interpersonal dynamics.

The transformation of MV from a pure fantasy world to a nuanced digital universe requires a comprehensive ethical framework that promotes empowerment, inclusivity, and responsible cultivation of identities in this complex terrain, where stakeholders such as users, developers, researchers, and policymakers need to address these complex issues collaboratively. This promise of agency in the digital world is intertwined with the ethical imperative to counter potential pitfalls (objectification, harassment, cultural insensitivity), promoting a responsible digital ecosystem.

Finally, the evolution of the MV female figure emerges not as a stand-alone narrative but as part of a complex structure woven into the fabric of technological progress, cultural transformation, and the search for a more egalitarian world. Soon, the world of work is poised to transform into e-business. Therefore, in light of technological developments, the existing and ongoing inequality between men and women, which has significant potential, should be eliminated in the new world order. Women should be able to access the electronic business models that will be realized on virtual platforms on equal opportunities with men in the future.

Future research efforts could delve deeper into the complex interplay between multiple layers of identity (gender, ethnicity, sexuality, ability) within MV. By tracing avatars' evolution across evolving MV episodes, researchers can discern the enduring resonance of virtual experiences on identity narratives. Furthermore, comparative studies in different socio-cultural and socioeconomic contexts can shed light on the interplay between technology, gender norms, and identity by revealing differences in the portrayal of women.

Conflict of Interest Disclosure: There is no conflict of interest between the authors regarding the research, preparation of the manuscript for publication, and/or its publication.

Support/Financing Information: The authors did not receive any financial support during the preparation of this article.

Ethics Committee Decision: No ethics committee decision is required for the research and publication of this study.

REFERENCES

Alagband, M. & Yee, L. (2022, Kasım 21). Even in the metaverse, women remain locked out of leadership roles. McKinsey & Company.

Apple (2021, Aralık). Inclusion Diversity <https://www.apple.com/diversity/>

Apple. (2023, Haziran 6). Introducing Apple Vision Pro [Video] Youtube. <https://www.youtube.com/watch?v=TX9qSaGXFyg>

ArtTactic (2021, Kasım). NFT art market report. <https://news.artnet.com/market/nftsales-just-16-percent-women-2030490>

Bakan U, Bakan U. (2019). Gender and Racial Stereotypes of Video Game Characters in (MMO)RPGs Türkiye İletişim Araştırmaları Dergisi. (34) 100-114

Behm-Morawitz, E., & Mastro, D. (2009). The effects of the sexualization of female video game characters on gender stereotyping and female self-

concept. Sex Roles, 61(11–12), 808–823.
<https://doi.org/10.1007/s11199-009-9683-8>

Boston Consulting Group (BCG). (2023, Şubat 16). Web3 already has a gender diversity problem. <https://www.bcg.com/publications/2023/how-to-unravellack-of-gender-diversity-web3>

Bozyer, Z., Demir, N. (2023). Geleceğin İnterneti Web 3.0'da Cinsiyet Çeşitliliğinin Önemi. Disiplinlerarası Yaklaşımlarla Kadın Çalışmaları 2. Edi: İnci ERDOĞAN TARAKÇI. Efe Akademi. p: 569-590

Castronova, E. (2005). Synthetic Worlds: The Business and Culture of Online Games. University of Chicago Press.

Chess, S., & Shaw, A. (2015). A Conspiracy of Fishes, or How We Learned to Stop Worrying About #GamerGate and Embrace Hegemonic Masculinity. Journal of Broadcasting & Electronic Media, 59(1), 208-220.

Consalvo, M. (2017). Cheating: Gaining Advantage in Videogames. The MIT Press.

Creswell, J.W. (2015). A concise introduction to mixed methods research. California: Sage Publications.

Creswell, J.W. (2020). Nitel Araştırma Yöntemleri: Beş Yaklaşımına Göre Nitel Araştırma ve Araştırma Deseni (5 b.). Ankara: Siyasal Kitabevi.

Duan, H., Jiaye, L., Sizheng, F., Zhonghao, L., Xiao, W., & Wei, C. (2021). Metaverse for social good: A university campus prototype. Paper presented at 29th ACM International Conference on Multimedia, Online, October 20–24; pp. 153–161.

- European Institute for Gender Equality (EIGE). (2021). Artificial intelligence, platform work, and gender equality. <https://rm.coe.int/artificial-intelligenceplatform-work-and-gender-equality/1680a56b24>
- Gomez-Herrera, E. and S. Koeszegi (2022). A gender perspective on artificial intelligence and jobs: the vicious cycle of digital inequality, Working Paper 15/2022, Bruegel
- Haraway, D. J. (1991). *Simians, Cyborgs, and Women: The Reinvention of Nature*. Routledge.
- Hill, C., Corbett, C., & St. Rose, A. (2010). *Why so few? Women in science, technology, engineering, and mathematics*. American Association of University Women. NW, Washington, DC.
- Huh S., Williams D. (2010). Dude looks like a lady: Gender swapping in an online game. In Bainbridge W. (Ed.), *Online worlds: Convergence of the real and the virtual* (pp. 161–174). Doi:10.1007/978-1-84882-825-4_13
- Jenkins, H. (2003). *From Barbie® to Mortal Kombat: Gender and Computer Games*. MIT Press.
- Jeon, Joon H. (2021). A study on the principle of metaverse composition with a focus on Roblox. *Korean Association for Visual Culture* 38: 257–79.
- Ko, Sun Young, Han Kun Chung, Jong-In Kim, and Youngtae Shin. 2021. A study on the typology and advancement of cultural leisure-based metaverse. *KIPS Transactions on Software and Data Engineering* 10: 331–38.

- Meta (2022, Temmuz). Annual diversity report. https://about.fb.com/wpcontent/uploads/2022/07/Meta_Diversity-Data-Summary-Report_2022.pdf
- Microsoft (2021). Global diversity & inclusion report. <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RWNrak>
- Muller C. & Vasconcelos Aquiar. J. P. (2022, Mart 3). What is the digital divide? Community Networks, Internet Society. <https://www.internetsociety.org/blog/2022/03/what-is-the-digital-divide/>
- Nakamura, L. (2002). *Cybertypes: Race, Ethnicity, and Identity on the Internet*. Routledge.
- Narin, Nida G. (2021). A content analysis of the metaverse articles. *Journal of Metaverse* 1: 17–24.
- OECD (2001). *Understanding the Digital Divide*. <https://www.oecd.org/sti/1888451.pdf>
- Parmaxi, A. (2020). Virtual reality in language learning: A systematic review and implications for research and practice. *Interactive Learning Environments*, pp. 1–13.
- Senft, T. M. (2008). *Camgirls: Celebrity and Community in the Age of Social Networks*. Peter Lang.
- Shaw, A. (2012). Do You Identify as a Gamer? Gender, Race, Sexuality, and Gamer Identity. *New Media & Society*, 14(1), 28–44.

Skowronski M, Busching R, Krahé B. (2021). The effects of sexualized video game characters and character personalization on women's self-objectification and body satisfaction. *Journal of Experimental Social Psychology*.92

Stephenson, N. (1993). *Snow Crash*. New York: Bantam Books.

Torun, Emel D. (2020). Educational use of social media in higher education: Gender and social networking sites as the predictors of consuming, creating, and sharing content. *Acta Educationis Generalis* 10: 112–32.

Turkle, S. (1995). *Life on the Screen: Identity in the Age of the Internet*. Simon & Schuster.

UNDP, (2022). Kadın Dostu Dijital Yol. <https://www.undp.org/tr/turkiye/publications/kadin-dostu-dijital-yol>.
Access Date: 03.06.2023

UNESCO (2022, Eylül). ITU/UNESCO broadband commission for sustainable development. <https://unesdoc.unesco.org/ark:/48223/pf0000383330>

UNESCO (2023, Nisan 28). Artificial Intelligence: UNESCO launches Women4Ethical AI expert platform to advance gender equality. <https://www.unesco.org/en/articles/artificial-intelligence-unesco-launcheswomen4ethical-ai-expert-platform-advance-gender-equality>

World Benchmarking Alliance (WBA). (2021, Mart). Digital inclusion benchmark 2021 insights report. <https://assets.worldbenchmarkingalliance.org/app/uploads/2022/03/2021-Digital-Inclusion-Benchmark-Insights-Report-March-2022.pdf>

World Economic Forum (WEF) (2022). Global gender gap report 2022.
<http://reports.weforum.org/globalgender-gap-report-2022>

YÖK (2023). Yükseköğretim program atlası. <https://yokatlas.yok.gov.tr/>

YÜCEL, H. (2018). Dijitalleşmenin Kadının Fırsat Eşitliğine Nasıl Bir Etkisi Olur?.
<https://www.ekoik.com/dijitallesmenin-kadinin-firsat-esitligine-nasil-biretkisi-olur/> .Access date: 03.06.2023.

GENİŞLETİLMİŞ ÖZET

GİRİŞ

Metaverse (MV), dijital teknolojinin durdurulamaz ilerleyişi, oyunlardan sosyal ağlara ve artırılmış gerçeklikten oluşan çeşitli dijital ortamların ortaya çıkmasına yol açmıştır. Bu ortamlar sadece fiziksel dünyamızı yansıtmakla kalmaz, aynı zamanda hayal gücünün somutlaştığı yeni boyutlar sunar. Metaverse, geniş ve bağlantılı bir dijital ortam olarak, teknoloji, sosyal etkileşim ve kendini ifade etme konularında insanlığın teknoloji kullanımı, toplumsal etkileşim ve kendini ifade etme konusunda bir paradigim değişikliğine yol açmıştır.

Bireylerin dijital dünyalara olan artan ilgisi, teknolojinin hızlı gelişimi ve sanal gerçeklik deneyimlerinin iyileştirilmesi gibi birçok kilometre taşıyla son dönemlerde mevcut formunu alan MV, politika, ekonomi, toplum ve kültürün çeşitli yönlerini kapsayan bir alan olarak hem gerçekliği hem de gerçek dışılığı içeren bir alan olma özelliğini taşımaktadır. Bu bağlamda, MV'yi oluşturan temel teknolojiler olarak sanal gerçeklik (VR), artırılmış gerçeklik (AR), blockchain, kripto paralar, Nesnelerin İnterneti (IoT) ve yapay zekâ (AI) düşünülebilir. Tüm bu farklı araçlarla MV, toplumların dijital ortamda sosyal etkileşim, ticaret, eğitim ve birçok diğer ihtiyacını karşılayabilme yetisine sahiptir.

Bugün bireyler tamamen sanal dünyalarda etkileşimli oyun deneyimleri yaşayabilir, sanal avatarlar oluşturabilir, diğer kullanıcılarla sosyal olarak etkileşimde bulunabilir, sanal mağazalarda alışveriş yapabilir, çevrimiçi sınıflarda veya eğitim ortamlarında etkileşimli deneyimler yaşayabilir ve sanal galerilerde

sanat eserleri keşfedebilir veya tasarlayabilirler. Ayrıca MV'ler, ırk, cinsiyet ve engellilikle ilgili yaygın kavramları sorgulama potansiyeline sahiptir, bu nedenle bu konuda akademik merak uyandırmaktadır. Cinsiyet perspektifi, bu dünyada yüzyıllardır yaşanmış birçok toplumsal, ekonomik veya kültürel alanda hissedilen bir etki, şimdi tüm insanlığın gözleri önünde sıfırdan inşa edilmekte olan yeni (dijital) dünya düzeninde de kök salabilir. MV, özgün ifade ve kimlik müzakeresi için benzersiz bir serbestlik sunduğundan, tarihsel ve kültürel anlam yüklü olan cinsiyetin çizgileri, hem gerçek dünya paradigmasını yansıtan hem de meydan okuyan yollarla bu dijital dünya içinde ortaya çıkmaktadır.

Konuya dair ilk olarak, Haraway'ın "siborg" kavramı (1991), dijital dünya kullanıcılarının dijital kişiliklerini şekillendirmek için insan ve teknolojik unsurları bir araya getirdiği MV bağlamında derinlemesine etkili olmuştur. Benzer şekilde, teknoloji ve kimlik çalışmalarının öncü seslerinden biri olan Turkle (1995), grafiklerdeki teknolojik ilerlemelerin duygusal bağlanma ve kendini ifade etme hissini artırmasını inceleyerek kullanıcıların avatarlarıyla kurduğu duygusal bağları incelemiştir.

Jenkins (2003) ve Nakamura (2002) tarafından yapılan araştırmalar, video oyunlarında cinsiyet dinamiklerini inceleyerek cinsiyet stereotiplerinin devamını ve geleneksel normların pekiştirilmesini aydınlatmıştır. İkonik "Donkey Kong" ve "Pac-Man" gibi erken video oyunları, kadın karakterlerin genellikle başkalarının yardımına ihtiyaç duyan ya da ikincil rollerde temsil edildiği dönemin baskın kültürel normlarını yansıttığı düşünülmüştür (Jenkins, 2003).

Ardından Castronova'nın sanal dünyalar üzerine yaptığı öncü çalışma (2005), çevrimiçi ekonomiler, yönetim ve sosyal etkileşimlerin panoramik bir görünümünü sunarak bu katılımcı ortamlarda cinsiyetli kimliklerin nasıl ortaya çıktığını derinlemesine keşfetme yolunu açmıştır. Öte yandan, MV'deki kadınların temsili, beden imajı endişeleri ve toplumsal güzellik standartlarıyla da iç içedir. Senft'in (2008) cam kızları üzerine yaptığı araştırma, çevrimiçi alanlarda cinsiyet performansı ve kimlik müzakeresinin çok yönlü boyutlarını aydınlatmış, kadınların meta verileri kullanarak ajans, güçlenme ve ekonomik bağımsızlık için bir platform olarak nasıl kullandığını göstermiştir.

Daha yakın tarihli araştırmalar, MV'nin sosyal algılar ve gerçek dünya davranışları üzerindeki etkisine artan dikkat çekmektedir. Shaw'un (2012) oyun kimliği üzerine yaptığı araştırma, sanal topluluklarda kimlik müzakeresinin karmaşıklığını vurgulayarak bireylerin kendilerini oyun oyuncusu olarak tanımlamalarının cinsiyet, ırk ve cinsellikle nasıl etkileştiğini göstermiştir. Öte yandan, Chess ve Shaw'un (2015) çevrimiçi tacizin, özellikle de "cyber-mizojini"nin (çevrimiçi cinsiyetçilik), MV'nin daha karanlık yönlerine ışık tuttuğu ve toksik davranışları engellemeye yönelik etik düşünce ve önlemlere ihtiyaç

duyulduğunu vurguladığı araştırma, aynı zamanda çevrimiçi tacize karşı önlemler getirilmesini ve kullanıcıları toksisitenin tuzağından koruyacak mekanizmaların kurulmasını savunmaktadır. Dijital platformlar olgunlaştıkça, Consalvo (2017) gibi araştırmacılar video oyunlarında hile yapma ve avantaj arama davranışlarını analiz etmiştir.

Önceki çalışmalara dayanarak, genç bireyler arasında sosyal ağ sitelerinin (SNS) kullanımı ile cinsiyet farkları arasında bir ilişki olduğu da görülmektedir. Dikbaş Torun (2019) tarafından yapılan araştırmaya göre, kadınların, ortalama veriler ve istatistiksel analizler tarafından gösterildiği gibi, erkeklere kıyasla sosyal medya tüketiminde daha olumlu ve etkili bir model sergilediğini gösteren kanıtlar bulunmaktadır.

Bu karmaşık yapı içinde, cinsiyetin temsili ve kimlik oluşumu ile etkileşimi öne çıkılmış, cinsiyetin MV içindeki tasvirini incelemek açısından çok disiplinli bir bakış açısına sahip bu makale, bu dijital kişiliklerin dönüşüm potansiyelini ve sanal gerçeklik sınırlarının ötesinde taşıdıkları derin toplumsal ve kültürel etkileri keşfetmektedir. Bu karmaşık zeminde gezinerek, dijital mekanlardaki cinsiyet tasvirinin ince detaylarına ve MV'nin kimlik, güçlenme ve yaşanan hikayeleri yeniden şekillendirme kapasitesine ışık tutulması planlanmaktadır. Bulgular, dijital evrimin mevcut durumunu aydınlatmak ve gelecekteki dönüşüm potansiyeli ve etik gerekliliklerin anlaşılmasına yardımcı olacağından oldukça önemlidir.

Yöntem

Fenomenolojik bir yaklaşım benimsenen bu çalışmada, ağırlıklı olarak ikincil veriler ve deneysel bilgilerden yararlanarak keşifsel bir analiz yapılmakta ve özellikle davranış bilimleri bağlamındaki sorunlara odaklanarak bireylerin yaşadıkları dünyaya yükledikleri anlamı keşfetmek için kullanılan betimsel analizden yararlanılmaktadır.

Bu çalışma, teknoloji, emek piyasaları, kültür ve MV içinde cinsiyet temsillerinin karmaşık etkileşimini açığa çıkarmayı amaçlamaktadır. Bu çok disiplinli çalışmada, MV'deki kadın figürlerinin temsillerini incelemek ve bu dijital kimliklerin dönüşüm potansiyelini keşfetmek için sosyoloji, ekonomi, psikoloji ve medya çalışmalarından yararlanılmaktadır. Ayrıca, sanal dünyaların sınırlarını aşan derin sosyo-kültürel ve ekonomik etkilere sahip olduğunu vurgular. Bu karmaşık alanda gezinirken, dijital alanlarda cinsiyet temsillerinin inceliklerine odaklanmanın yanı sıra kimlik oluşumu, kişisel güçlenme ve etrafımızdaki hikayeleri yeniden şekillendirmeye yönelik kapasitesine ve potansiyeline odaklanmanın önemli olduğunu vurgulanmaktadır.

Bulgular

Kullanıcıların kimliklerini serbestçe şekillendirebilecekleri bir alan olan MV, ve bu özgürlük, cinsiyet rollerini sorgulamak ve kimliklerin çok yönlü boyutlarını keşfetmek isteyen özellikle kadınlar için uygun bir zemin sağlamaktadır.

Ancak, dijital dünyada cinsiyet eşitsizliği ve ayrımcılık hala mevcuttur. Dijital uçurum kavramı, bilgi ve iletişim teknolojilerinin farklı sosyo-ekonomik gruplar arasındaki kullanılabilirlik ve kullanımındaki farklılığı ifade etmektedir. Bu kavram, teknolojiye erişim, dijital kaynakların maliyeti, mevcut içeriğin kalitesi ve güvenliği gibi değişkenleri de içermektedir.

Dijital dünya içindeki cinsiyet çeşitliliği, toplumsal cinsiyet normlarını sorgulama fırsatı sunsa da, hala kadınların dijital sektörde yetersiz temsil edildiği görülmektedir. Bu, sosyal stereotiplerin hala yerleşmediğini ve kadınların erkekler tarafından hakimiyeti olan işleri tercih etmekten kaçındığını göstermektedir. Eğitim aşamasında kadınların sektörle tanışmalarını engelleyen sosyal normlar ve kalıplar da bu eşitsizliğe katkıda bulunmaktadır.

Sonuç ve Tartışma

Sonuç olarak, MV gibi teknolojiler, temsil eksikliğini ele alırken aynı zamanda cinsiyet eşitsizliği ve diğer sorunların devam etmesi için uygun zemini de beraberinde getirmektedir. Bu nedenle, dijital dünyanın cinsiyet eşitsizliğini ele almak ve cinsiyet normlarını sorgulamak için etik ve işbirlikçi çabaların devam etmesi gerekmektedir.