

Analysis of Ethical Issues in the Metaverse

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Abstract: - The metaverse is a multi-layer construction wherein people rebuild their identity, privacy, and social roles through interactive virtual environments powered by converging technologies. It is the aim of this paper to investigate systematically the ethical issues in metaverse spaces and recommend a multi-stakeholder ethical framework with such issues in consideration. A mixed-methods survey was conducted, combining qualitative and quantitative approaches, to explore perspectives on data safety, virtual identity, virtual harassment, and AI-based moderation. The findings suggest that users worry extensively about moral gray areas and propose a new definition of terms such as platform transparency and digital consent. This study contributes to the evolution of digital ethics theories into practicable theories for contemporary virtual spaces and provides hands-on ethical models for coders. It is also the aspiration that subsequent studies will investigate the lesser explored topics of child user experiences, digital death rituals, and religious activities in the virtual.

Key-Words: - Metaverse, Ethics, Privacy, Cyber Harassment, User Perception

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1 Introduction

The way humans interact with virtual worlds has changed tremendously with the fast pace of development of immersive technologies. As these technologies further penetrate daily life, their wider social, ethical, and psychological consequences have become a concern. The purpose of this study is to understand these consequences in the context of the metaverse.

1.1 Background

With roots in both the birth of science fiction and the runaway development of immersive digital technologies, the metaverse has so far taken shape as one of the most significant technological developments of the twenty-first century. It is necessary to first examine the historical development, technological foundation, and interdisciplinary range of contexts that shaped the modern state of the metaverse to best understand the ethical and social implications herein presented within this research.

1.1.1 The Evolution and Technological Foundations of the Metaverse Concept

The term "metaverse" was first introduced in Neal Stephenson's 1992 science fiction novel *Snow Crash* and has evolved from a hypothetical model to a viable technological vision driven by advancements in

digital technologies. Essentially, the metaverse is a virtual shared universe where users can exist and interact within digitally enhanced realities that mirror real life. This space is based on the collective use of technologies such as augmented reality (AR), virtual reality (VR), blockchain, artificial intelligence (AI), and cloud computing.

Over the past couple of years, multinational technology giants have invested massively in this sector. Tech giants such as Meta, Microsoft, Apple, and Google have begun constructing metaverse infrastructures. Due to this, the metaverse has extended beyond the walls of entertainment and gaming, assuming a revolutionary position in various sectors such as education, healthcare, architecture, and virtual work.

1.1.2 Socio-Cultural and Economic Reflections

The interactive immersion environments of the metaverse enable individuals to construct their identities in new ways while heralding the recalibration of cultural norms, interpersonal relationships, and economic models of interaction. Emerging phenomena such as NFTs (Non-Fungible Tokens), virtual property, digital labor, avatar embodiment, and virtual economies have given rise to discussions on new rights and responsibilities at both the individual and societal levels. In this case, the metaverse must be studied not only from a

technological standpoint but also from philosophical, moral, and legal aspects.

1.1.3 The Necessity of an Ethical Perspective

Metaverse environments are shaped by decentralized structures, defining users' behaviors with anonymity of identities and breaking down privacy boundaries with ease. The described situation challenges the direct application of well-established ethical principles and calls for novel approaches to ethics. Misuse, digital harassment, information manipulation, algorithmic bias, and digital inequality are current issues that do not have clear legal frameworks yet and require a reconstruction of the metaverse in an ethical context. For this, integrating ethical dimensions within metaverse environments becomes indispensable to make technological development compatible with social welfare.

1.1 Problem Definition

1.2.1 Uncertainty in Ethical Regulations

Until now, investigations on ethical issues in the metaverse have been minimal compared to research into its technical infrastructure and economic potential. There has not yet been any systematic approach to the key ethical issues surrounding the protection of privacy rights, digital identity security, content moderation, child protection, virtual harassment, and discrimination. The fragmented nature of current legal systems prevents them from making decisions concerning events taking place in the metaverse, while ambiguities of norms blur the distribution of responsibility between users and platform developers.

1.2.2 Gaps in Literature and the Contribution of This Study

Most of the literature on this theme focuses on the theoretical discussion of the metaverse. In fact, this limits the development of an overall and practice-oriented ethical model. Besides, the relationships among users' ethical awareness, developers' responsibilities, and platform regulatory mechanisms have not been analyzed enough.

This study seeks to fill this gap by classifying the ethical issues occurring in metaverse settings, reassessing existing ethical theories considering their digital contexts, and proposing a multi-stakeholder ethics framework. In so doing, it provides theoretical contributions to literature and lays the ground for deriving practical ethical guidelines for platform developers, regulators, and users.

1.3 Purpose and Scope

The main objective of the present work is to systematically analyse the emerging ethical issues in

metaverse environments, develop ethical approaches to the same, and present a multi-stakeholder ethical guidance framework. Since the metaverse is not just a technological innovation but also a multi-dimensional ecosystem driving social, cultural, and psychological transformations, the lack of guiding ethical norms for user behaviour within such environments is a major challenge.

This study aims to fill in the gaps in the literature, specifically in the areas of digital body modification and identity alteration that cross cultural boundaries, speculative value creation through digital ownership that could underpin unethical capitalist practices, and phenomena like virtual death, mourning, and mind cloning that reinterpret ideas of privacy and human dignity. We will consider these questions closely, for example, whether violence toward animal avatars in the virtual world is immoral, whether consent needs to be redefined in virtual worlds, and the pedagogical and ethical consequences of teaching children with AI avatars.

These subjects have either received little attention in the literature or, at most, have only been briefly discussed theoretically. Because it thoroughly presents ethical analyses of a wide range of topics, including virtual addiction, the representation of sacred spaces, the transfer of consciousness, and digital body aesthetics, this research thus offers new opportunities.

The applications of the metaverse, including social media and gaming platforms, virtual offices, and digital education systems, are the specific focus of this study. It seeks to provide applicable ethical guidelines that can be utilized by different stakeholders like users, developers, lawmakers, and scholars. It incorporates local context and considers the growing impact of metaverse use in Turkey, even as it seeks to offer an universally applicable framework.

1.4 Literature Connection

The swift development of metaverse technologies has given rise to new ethical discussion topics. To identify both the current contributions and the gaps in the body of research, the literature table (Table 1) below provides a summary of recent scholarly studies that examine the relationship between the metaverse and ethics from a variety of angles.

Table 1: Summary of Studies on the Concept of Ethics in Metaverse Literature

Author(s)	Year	Title	Findings	Contribution	Limitation
Perez et al. [2]	2023	Addressing Body Image Disturbance through Metaverse-Related Technologies	Idealized body perception can be enhanced through avatars.	Examines body image and identity issues from a metaverse perspective.	Cultural differences are insufficiently addressed.
Behera et al. [3]	2024	Ethical Metaverse Principles for Guiding Decision-Making and Maintaining Complex Relationships	User rights on ownership, control, and autonomy are defined.	Provides a theoretical framework for ethical decision-making.	Limited real-world applicability.
Puzio [4]	2023	When the Digital Continues After Death	The concept of digital mourning plays a meaningful role in user experience.	One of the first detailed studies on the ethics of digital death.	Lacks empirical data; largely theoretical discussion.
Neethirajan [5]	2024	Metaverse for Enhancing Animal Welfare - Leveraging Sensor Technology and Ethical Considerations	Virtual animal experiences may influence user sensitivity.	Opens discussion on animal rights in the digital realm.	Conceptual level; lacks experimental data.
H. Rodríguez Reséndiz and J. Rodríguez Reséndiz [6]	2023	Digital Resurrection: Challenging the Boundary between Life and Death	The concept of consciousness transfer challenges ethical and metaphysical boundaries.	Among the early studies linking digital immortality to the metaverse.	No experimental or technical basis yet.
Cerasa et al. [7]	2023	The Promise of the Metaverse in Mental Health: The New Era of Digital Therapy	The metaverse holds potential in digital therapies.	Evaluates both the addictive and therapeutic aspects.	Limited clinical research.
Munn and Weijers [8]	2023	The Real Ethical Problem with Metaverses	Platforms tend to manipulate users.	Highlights manipulation of perception and decision-making.	Limited concrete examples; generalizations possible.
McGlynn and Rigotti [9]	2023	From Virtual Rape to Meta-rape: Sexual Violence, Criminal Law and the Metaverse	The concept of consent must be redefined in virtual environments.	Reveals the legal dimension of virtual sexual violence.	Weak connection with current legislation.
Tiwari [10]	2023	Preserving Childhood by Design: Ethics for Metaverse Content Creators	Children's content requires ethical design.	Provides an ethical guide for content creators.	Does not address practical implementation challenges.
Thomas et al. [11]	2024	The Metaverse, Religious Practice and Wellbeing: A Narrative Review	Metaverse participation in worship provides individual spiritual benefits.	One of the rare studies on digital representation of religion.	Lacks theological depth.

Emerging ethical concerns in the metaverse universe run the risk of staying at surface-level unless they are assessed alongside the social effects of technological advancement. This study is unique because it focuses on both well-known ethical issues and particularly pertinent subtopics that have not yet been fully explored in literature but have a direct impact on human dignity and user experience. The purpose of the above-mentioned literature review was to methodically assess the breadth of current research as well as any gaps that may have been missed. The survey dimensions used in this study, especially those pertaining to digital identity and data protection, were developed using the studies that were summarized above.

Perez et al. conducted a systematic review investigating the potential of metaverse technologies in addressing body image disturbances. The study discusses how VR and avatar-based applications can be used in body image therapy and argues that such technologies could be integrated into psychological support processes [2].

Behera et al. examine the ethical dilemmas encountered by businesses operating in 3D virtual environments. The authors propose ethical principles to guide responsible decision-making in the metaverse and emphasize the importance of building digital trust and accountability [3].

Puzio explores the ethical dimensions surrounding the continuation of digital identities after death. The study discusses "Death Tech" technologies in terms of digital immortality, the grieving process, and individual privacy, offering a philosophical perspective on the post-digital human experience [4].

Neethirajan investigates how the metaverse, combined with sensor technology, can enhance animal welfare. The study suggests that virtual monitoring systems can improve behavioral analysis and ethical care for animals, while also drawing attention to the ethical limitations of such applications [5].

H. Rodríguez Reséndiz and J. Rodríguez Reséndiz question the boundaries between life and death through the lens of AI-driven digital resurrection. The article analyzes the ethical and psychological implications of reviving digital versions of deceased individuals and examines how this transforms concepts such as memory, mourning, and personal identity [6].

Cerasa et al. explores the revolutionary potential of the metaverse in the fields of psychiatry and mental health. The concept of "MEDverse" is introduced as a framework for delivering personalized, accessible, and innovative therapeutic solutions, with a focus on the relationship between virtual reality therapies and emotional healing [7].

Munn and Weijers argue that the core ethical problem in the metaverse lies not in the technology itself, but in the institutions that control these digital worlds. The authors raise concerns about how fundamental rights such as privacy, autonomy, and freedom are neglected in the design of virtual environments [8].

McGlynn and Rigotti analyze the legal dimensions of sexual violence within the metaverse platforms. Through the concept of "meta-rape," the article highlights the psychological and legal consequences of such virtual trauma and stresses that existing legal frameworks are insufficient to address these emerging forms of harm [9].

Tiwari discusses the ethical responsibilities of metaverse content creators toward child users. The study details the risks and developmental impacts children may face in virtual environments and proposes a balance between ethical design principles and digital safety [10].

Thomas et al. examine the integration of religious practices into the metaverse and their impact on individual well-being. Virtual pilgrimage, worship, and digital community formation are explored, with attention to both the spiritual benefits and potential drawbacks of such practices [11].

2 Methodology

This survey uses both quantitative and qualitative data collection techniques to gauge users' perceptions of ethical dilemmas they face in metaverse environments. Real-world user experiences served as the foundation for the data analysis procedure. The results presented here are indicative rather than generalizable because the study design was exploratory in nature and sought to identify early patterns in user perceptions.

2.1 Dataset and Participant Profile

The information was collected through an online survey, and the overall questionnaire consisted of 10 questions. The total respondents numbered 500 and were aged from 18 to 55 years. The demographic profiles of the respondents are presented in Fig. 1, Fig. 2, and Fig. 3.

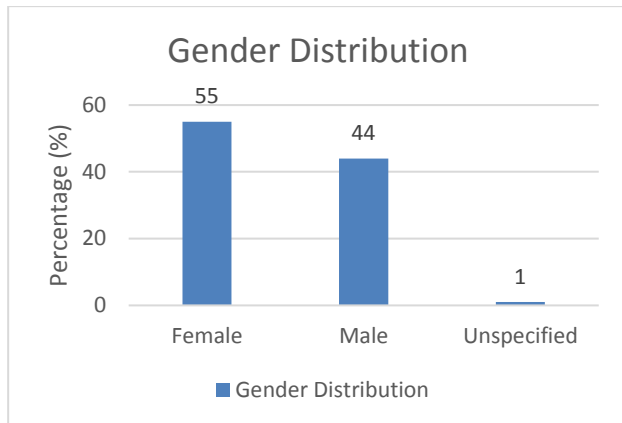


Figure 1: Gender Distribution

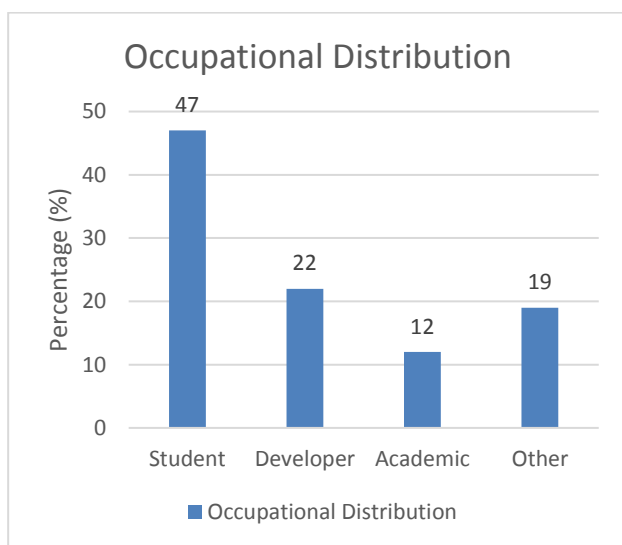


Figure 2: Occupational Distribution

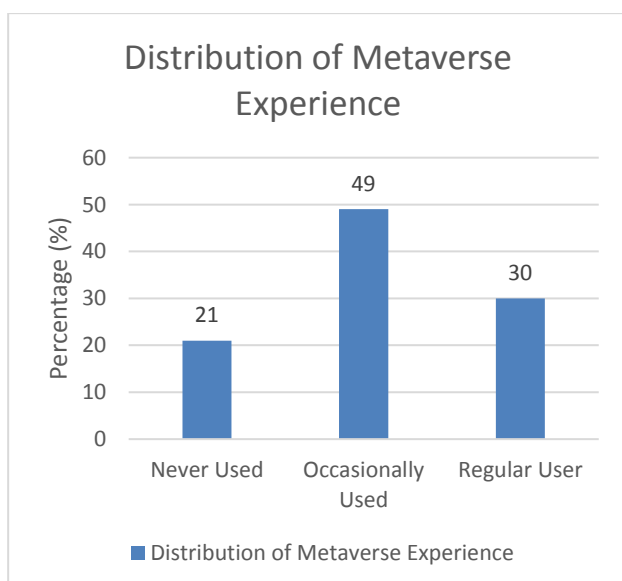


Figure 3: Distribution of Metaverse Experience

It also emerged that 55% of the population used metaverse platforms for social reasons, 30% for gaming, and 15% for professional or educational purposes. These statistics are important so as to understand in which environments ethical issues are more likely to arise. For example, socially motivated applications are more likely to amplify issues around privacy as well as representation of identity.

2.2 Structure and Method of the Survey

The typical ethical issues encountered in literature were used as a reference when designing the questionnaire. The issues were used to construct questions in such a manner that they reflect the way they manifest in user experience. The questioning format was pre-tested among three experts to ensure that the data collection tool provides consistency and clarity. Open-ended questions were included to provide more feedback from participants on their personal opinions regarding virtual violence, digital consent, and moderation through AI.

The questionnaire consisted of 10 items, distributed over five broad categories of ethical issues:

- Personal information protection
- Experiences of virtual harassment
- Digital identity and privacy
- Ethical responsibility of platforms
- AI moderation performance

Each item was answered by the participants using a 5-point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Two open-ended questions were also provided for the collection of qualitative data.

2.3 Analysis Process

The survey data were summarized with frequency distributions and percentage analysis. Where appropriate, the data were compared between groups by gender and metaverse experience level. Based on the exploratory nature of the current study, tests of inference were used to identify significant differences between groups; however, because primary interest was in taking an exploratory course of action, most results are reported. A conventional threshold for significance, $p < 0.05$, was used when reporting results of inference; however, these p-values, due to the limited sample size, are interpreted with caution and highlighted as exploratory.

To enhance the qualitative component, an inductive thematic coding process was done for the open-ended responses. Two researchers independently coded the responses, with iterative refinements of coding schemes, resolving any disagreements through discussion to reach consensus. From this process,

three recurring themes were identified and used to contextualize the quantitative findings:

- 1. Perceived vulnerability and lack of control:** Users expressed uncertainty regarding data handling and practices followed by the platform.
- 2. Avatar-based identity pressure:** In some respects, there were social, and gender pressures related to avatar appearance and choice.
- 3. Distrust in algorithmic moderation:** Participants discussed fairness, transparency, and accountability concerns related to automated moderation systems.

The following chart shows the mean response and the standard deviation for five of the key questions. (See Fig. 4). Where inferential statistics are referred to in the text, these indicate possible trends rather than being used to make any generalizable statements.

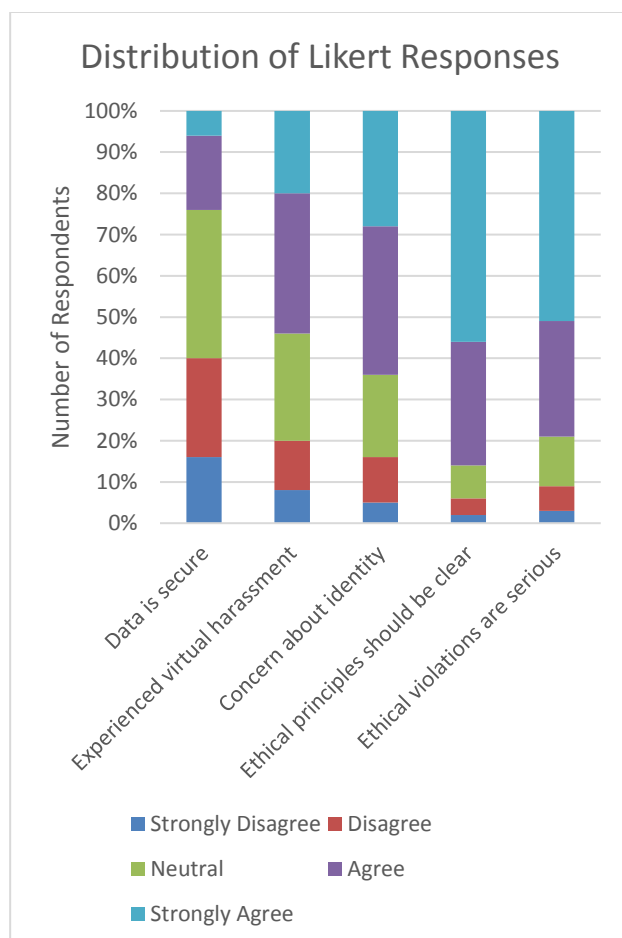


Figure 4: Distribution of Likert Responses

Most respondents reported that they perceived the platform's transparency regarding ethical guidelines as poor. This would align with Munn and Weijers

critique of “platform dominance” [8]. Furthermore, the high incidence of virtual harassment reports reflects how McGlynn & Rigotti’s concept of “meta-rape” resonates with real-world experiences [9].

2.4 Validity and Limitations

The voluntary and anonymous participation by respondents supported the validity of the study. However, the study has the following limitations:

- The sample size is $n=500$, which limits the statistical power and external validity of inferential analyses.
- Its constituents were predominantly computer-literate individuals who were 18-35 years old, which is still a fair representation of a mild selection bias.
- The survey was entirely dependent on self-report and not supplemented with observation or interaction-based measures of behavior.

Future work will need to, therefore, deliver stratified sampling by occupation, geographies, and age that would render the samples more representative and allow for stronger inferential analysis. The combination of self-report surveys with observational studies or logged interaction data would allow for stronger causal inferences of ethical harms and platform responses.

3 Findings and Discussion

This section provides the findings derived from the survey and discusses them in comparison to the literature.

Open-ended responses indicated that avatar representations forced some participants to change their identities. A female participant revealed, "When I use a female avatar, I experience more harassment," pointing out concerns about virtual gender identity. This quote confirms that there is a need for ethical exploration of digital embodiment and policies around avatars.

In addition, 40% of the respondents suggest they don't feel their own information is secure. 54% have either witnessed or experienced virtual harassment. 86% believe the sites should clearly state the ethical principles.

- Female respondents reported virtual harassment incidents 25 percent more than male respondents.
- Frequent users were more concerned and more sensitive when it comes to data privacy.

By way of comparison, virtual harassment rates reported in this research seem more higher than in previous studies; however, comparison is limited by differences in methodological frameworks adopted.

The correlation indicates the following: that users' perception of ethical insecurity is owing to the faster commercialization of metaverse platforms, as contended by Munn [8].

4 Conclusion

This research analyzes the effect of ethical problems faced on metaverse sites on users' attitudes. General findings suggest that users are highly concerned about data protection, virtual harassment, and ethical control. It was found that users are likely exposed to ethical issues in the universe of the metaverse and these are usually not controlled. Specifically, privacy breaches, lack of AI censorship, and ambiguous online consent directly impact on the users. With this in mind, it becomes a necessity that platform developers embed ethical considerations into their algorithm designs. Otherwise, this would cause distrust among the users and decreased engagement.

4.1 Contribution to Theory

This work expands the domain of ethical theories and practice encountered in cyberplaces to the metaverse, expanding the boundaries of metaverse ethical discussions. Specifically, this work introduces a novel method for examining how digital identity, privacy, AI interventions, and virtual consent might be reconstructed according to classical ethical theories.

4.2 Contribution to Practice

The research points out that not only are metaverse platforms technological entities but also virtual ecosystems of differing ethical obligations. It points out that, above all, the creators and managers must establish further measures according to elementary principles like user safeguarding, data secrecy, and ethical transparency. From implementable and realistic findings, such an observation would serve as practical advice for platform developers.

4.3 Limitations

The present study has some methodological limitations. First, most participants were young and tech-savvy, which limits the representativity of results to the wider metaverse users' population. Another weakness is that data collection was based solely on self-reporting without any measurement through observations or interactions involving participants. Exploratory studies with small samples are still useful in mapping the initial ethical trends of emergent technologies like metaverses.

4.4 Recommendations for Future Research

The further development of age-specific ethical analyses could be achieved in future studies by drawing on the experiences of child users within metaverse environments. Moreover, empirical data

collection about under researched thematic areas, such as virtual worship spaces, digital mourning processes, and representations of animals, would make major contributions to literature. In this context, observation-based field studies and the evaluation of experimental ethical auditing systems' effects on user experience would notably contribute to the literature. Observation-based field studies on larger and more diverse samples, and the evaluation of experimental ethical review systems, would add significant value to future research.

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Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

Alperen Kayan conducted a comprehensive literature review on academic studies related to Artificial Intelligence and the Metaverse and performed the corresponding analyses. Muhammet Fatih Zengin reviewed and analysed sectoral reports and technical documents relevant to the topic. Dr. Kemal Gökhan Nalbant supervised the entire process and was responsible for compiling and integrating the individual contributions into the final manuscript.

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Conflict of Interest

The authors have no conflicts of interest to declare that are relevant to the content of this article.

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