

# Accounting realism in the metaverse: a socio-psychological lens on CSR integration and ethical decision-making

Diginomics.

2025; 4:251

DOI: 10.56294/digi2025251

ISSN: 3072-8428

## *Realismo contable en el metaverso: una perspectiva sociopsicológica sobre la integración de la RSE y la toma de decisiones éticas*

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**Cite as:** Uwhejevwe-Togbolo SE, Nkemejina Okoli A, Otuedon AM, Omenebele Kaizar V. Accounting realism in the metaverse: a socio-psychological lens on CSR integration and ethical decision-making. Diginomics. 2025; 4:251. <https://doi.org/10.56294/digi2025251>

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### ABSTRACT

The tension that realism in accounting in the Metaverse faces is deep philosophical and practical: it is the limit between simulation and reality. In order to bridge the gap associated with the study, the study attempts to reduce the gap by considering accounting realism in the Metaverse: A socio-psychological lens on corporate social responsibility (CSR) integration and ethical decision-making, and how users understand financial accountability, internalise CSR values and make moral choices in avatar-mediated communication. The study acknowledges that accounting realism will need to adjust to the changing Metaverse to embody the economic substance of simulated transactions. These necessitate reviewing conventional models in order to allow the inclusion of digital phenomena without subjecting financial reporting to compromise. In spite of the transformative power, digital CSR is grappling with a collection of operational and ethical issues that cast doubts on its credibility and usefulness. The study concluded that Realism in accounting, association with the Metaverse and the use of socio-psychological approaches to CSR and ethical determinants are part of an important development in organisational governance. It was recommended that international accounting committees like the IASB and FASB, to begin with, ought to liaise with one another to design universal reporting mechanisms and virtual audit methods to be used in recording digital assets.

**Keywords:** Metaverse; Accounting; Realism; Corporate Social Responsibility; Ethics.

### RESUMEN

La tensión a la que se enfrenta el realismo contable en el metaverso es profundamente filosófica y práctica: es el límite entre la simulación y la realidad. Con el fin de salvar la brecha asociada al estudio, este intenta reducirla considerando el realismo contable en el Metaverso: una perspectiva sociopsicológica sobre la integración de la responsabilidad social corporativa (RSC) y la toma de decisiones éticas, y cómo los usuarios entienden la responsabilidad financiera, interiorizan los valores de la RSC y toman decisiones morales en la comunicación mediada por avatares. El estudio reconoce que el realismo contable tendrá que adaptarse al Metaverso cambiante para plasmar la sustancia económica de las transacciones simuladas. Esto requiere revisar los modelos convencionales para permitir la inclusión de fenómenos digitales sin comprometer la información financiera. Apesar de su poder transformador, la RSE digital se enfrenta a una serie de cuestiones operativas y éticas que ponen en duda su credibilidad y utilidad. El estudio concluyó que el realismo en la contabilidad, la asociación con el metaverso y el uso de enfoques sociopsicológicos de la RSE y los determinantes éticos forman parte de un importante avance en la gobernanza organizativa. Se recomendó que los comités internacionales de contabilidad, como el IASB y el FASB, para empezar, deberían colaborar entre sí para diseñar mecanismos de información universales y métodos de auditoría virtuales que se utilicen en el registro de activos digitales.

**Palabras clave:** Metaverso; Contabilidad; Realismo; Responsabilidad Social Corporativa; Ética.

Submitted: 30-08-2024 Revised: 24-01-2025 Accepted: 14-08-2025 Published: 15-08-2025

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## INTRODUCTION

The intense pace of the Metaverse, an immersive digital space, has created new complexities in financial reporting, ethical accountability, and corporate social responsibility (CSR). The problem of the absence of uniform accounting realism structures in the virtual economy is a serious issue that plagues firms.<sup>(1,2)</sup> Such uncertainty erodes the trust that the stakeholders have and makes ethical decision-making difficult.

A new generation of research is beginning to address these challenges.<sup>(2)</sup> acclaim how CSR in the Metaverse should move beyond traditional frameworks that focus on ethical use of data, digital inclusion, and transparency. The relevance of their research is to commit to CSR values in the virtual operations to encourage community engagement and sustainable development. In addition,<sup>(3)</sup> investigate the nexus between CSR, firm performance and clinical psychology, and we find out that psychological well-being and ethical leadership show a central role in an effective implementation of CSR.

The work on socio-psychological influences continues, even after these developments, an understanding remains devoid of whether and how social-psychological influences, including the avatar-mediated identity, moral reasoning, and group dynamics in the Metaverse, interact with accounting realism and CSR. The majority of current research projects work with financial measures or deal with the outside stakeholders without taking cognisance of the inner psychological processes determining ethical conduct within the virtual landscape.<sup>(4,5,6,7)</sup>

In order to bridge the gap associated with the study, the study attempts to reduce the gap by considering Accounting Realism in the Metaverse: A Socio-Psychological Lens on CSR Integration and Ethical Decision-Making, how users understand financial accountability, internalise CSR values and make moral choices in avatar-mediated communication. The study is valuable because it plays a role in the advancing debate concerning digital ethics, CSR, and virtual accountability. It provides an interdisciplinary approach to firms with challenges of navigating the ethical and psychological implications of financial reporting in the Metaverse.

### Realism vs. Simulation in Accounting

The tension that realism in accounting in the Metaverse faces is deep philosophical and practical: it is the limit between simulation and reality. Suppose virtual transactions create practical economic value, e.g. revenue of NFTs, digital land, or avatar services. Are they to be treated as real in the financial accounts? According to the International Financial Reporting Standards (IFRS), economic substance is supposed to determine recognition, as opposed to legal form.<sup>(8)</sup> Nevertheless, in the virtual setting, substance may be mediated by digital proxies, smart contracts and avatar identities and making it difficult to scale transactions accurately.<sup>(9)</sup> It confuses the accuracy of financial statements, which have always relied on verifiability, neutrality, and completeness.<sup>(10)</sup> The transactions that take place in the Metaverse could lack physical anchors, and it is not substantially easy to ensure that the communicated numbers could reflect the summarised economic activity faithfully. As an illustration, Viral assets can be dimensioned on the level of user activity or network popularity, without any inherent utility in mind, so there are risks of unsoundness because of material inaccuracy and prejudice in the measurement of value.<sup>(11)</sup>

Again, Comparability, which enables a comparison of

financial information among institutions and over time-is also stressed in virtual environments. Different treatments of similar digital assets could result in inconsistency and a lack of transparency, as chosen by the entities.<sup>(12)</sup> Comparability is enhanced by ensuring that firms follow the concepts of relevance and representational faithfulness, as the Financial Accounting Standards Board (FASB) recommends, but they are hard to consistently follow in decentralised digital environments.<sup>(13)</sup>

Accounting realism will need to adjust to the changing Metaverse to embody the economic substance of simulated transactions. These necessitate reviewing conventional models in order to allow the inclusion of digital phenomena without subjecting financial reporting to compromise.

### CSR Integration in Virtual Economies

The CSR integration is discussed in two dimensions: from the ethical infrastructure in the Metaverse and digital CSR and corporate digital responsibility.

I. Ethical Infrastructure in the Metaverse: The Metaverse CSR exceeds the formal parameters of environmental sustainability and philanthropy. It has also come to include digital ethics, inclusivity and equitable access as some of the core values that have to be embedded in the virtual operations. According to<sup>(14)</sup>, CSR in the Metaverse requires strategic ethical employee training workers who are communicating with customers in avatar form, establishment of clear-cut data policies and non-discriminative interaction strategies. In their research, they underline the idea that CSR in virtual domains is not a mere formality but a tactical instrument to the development of trust within the community and stability in economic progress. Thus, data privacy, algorithmic bias, and digital exclusion are other such issues the ethical infrastructure of the Metaverse must manage.<sup>(15)</sup> remark that CSR in immersive context necessitates firms to promote digital inclusivity and policy change in areas where access to virtual technology is more stratified.

Of equal interest is the communicative process of CSR action in virtual space. Perceived organisational morality and not competence was the driving force to stakeholder support in digital environments, as<sup>(16)</sup> discovered. In their experimental research in the UK and Russia, they discovered that CSR messaging should sound emotional and genuine in order to change the opinion of the crowds. This implies that firms are supposed to develop an immersive narration, avatar-assisted engagement, and socially responsible branding to establish trust and credibility in the Metaverse. Also, the culture-adaptive and psychologically-based CSR communication is needed in virtual economies. Through relying on social identity theory and impression formation models,<sup>(16)</sup> found that users are not only assessing the performance in terms of how virtual organisations are performing technically, but also exist based on perceptions on moral cues. This understanding supports an increased need to have CSR strategies that reflect ethical transparency and social responsibility in avatar-mediated environments.

II. Digital CSR and Corporate Digital Responsibility: There has been an emergence of the concept of Corporate Digital Responsibility (CDR), and this concept can be regarded as a method of CSR that incorporates the impacts of digital technologies. CDR focuses on data use transparency, ethical data use and responsible digital innovation. The recent changing trends in the sphere of CSR are driven by the technologies of artificial intelligence, blockchain, and big data, as<sup>(17)</sup> argue,

through increasing efficiency, stakeholder involvement, and social contribution. Ethical supply chains through blockchain, predictive analytics and smart resource management through AI to optimise environmental sustainability measures partly offer an example.

CSR is becoming more participatory in virtual economies. The results of <sup>(18)</sup> indicated that virtual CSR co-creation involving consumers, as in a case of a social media platform like Weibo and WeChat, positively affects corporate reputation and brand loyalty. They found that in CSR, social, hedonic, and achievement-driven motivations turn out to be important factors in influencing the user engagement in the activities of the CSR, particularly in instances when ease of use is considered to be high in terms of technology.

Gamification has been overwhelmed, too, as it is an effective means of engagement in CSR. As <sup>(19)</sup> proved, the resonating mechanisms of emotion and information on virtual CSR platforms help maintain engagement by users. The findings in their study of such platforms as Ant Forest demonstrate the potential of game design in creating a connection between environmental consciousness and real behavior, making CSR a long-term process of value creation,<sup>(3)</sup> underline that the possibilities of CSR in the metaverse have to transcend the facade of digital currencies or in-world fundraisers and charity streams. It must involve fair distribution of access to online services, ethical representation of avatars and multicultural community-building. This shows the relevance of digital literacy, moral governance and transparency of stakeholders of virtual CSR practices as evidence in their research study on Nigerian firms.

### CSR Values and Ethical Decision-Making in Avatar-Mediated Interactions

Since more firms are already considering working in the realm of virtuality, especially in the Metaverse, social virtual reality (VR), the use of CSR values and ethically sound decision-making becomes rather complicated and indispensable at the same time. Interacting with digital avatars where people represent themselves through computer-generated characters adds new aspects of self, conduct and ethical thinking. Such environments create a problem as far as conventional ethical models are concerned, as they facilitate anonymity, the ability to selective self-presentation, and behavioural disinhibition, which may result in hiding responsibility and ethical intent.<sup>(20)</sup>

CSR principles like transparency and inclusivity, respect for stakeholder welfare, should be re-examined in virtual terms. As an example, representations of different identities through avatars can be used to foster inclusivity, yet the representations can be used against others in an attempt to lie or bully, which leads to questions regarding representation and motive.<sup>(21)</sup> The Proteus effect, which posits that users imitate the characteristics of their avatars, implies that avatar design has the potential to affect ethical behaviour, and CSR-aligned avatar policies are a business necessity.<sup>(20)</sup>

According to empirical studies, empathy, social norms, and perceived morality have significant effects on how users behave in avatar-mediated interaction. While <sup>(16)</sup> acknowledges that moral communication in cyberspace is better suited to CSR, since communication based on moral values is more appealing than one based on competence. It builds trust and stakeholder interest. In the same way, avatar users having a perception of their environment as part of the enlightened ethics would

perform a lot of prosocial behaviour and hence the significant role of ethical leadership and consistency in CSR.<sup>(22)</sup>

Furthermore, the psychologically mediated difference between ethical decision-making in virtual environments should also be taken into consideration. The users may end up being less responsible in their actions when using avatars, which requires the adoption of digital citizenship instruction and ethical design concepts.<sup>(23)</sup> The current generative AI and artificial intelligence-mediated communication (AI-MC) frameworks are potentially useful to implement ethical rules into the contacts between avatars so that the CSR values can be manifested even on the platforms that are decentralised and immersive.

Altogether, CSR in avatar-mediated settings has to be a multifaceted means to address that, including ethical leadership, user empathy, and technological protection. Building guidelines that would foster ethical avatar creation, clear communication, and inclusive interactions within organisations and firms, as well as teaching users about responsible digital activity, must be the goal of the firms. With increased use of virtual communication, it will be essential to ensure that CSR values can be aligned with decisions which are made by means of avatars in order to maintain trust, equity and accountability in an online environment.

### Challenges and Ethical Considerations in Digital CSR

In spite of the transformative power, digital CSR is grappling with a collection of operational and ethical issues that cast doubts on its credibility and usefulness. Such issues as technological marginalisation, data appropriation and cosmetic branding need to be addressed by the scholars, practitioners, and regulators as a matter of emergency.

I. Digital Divide and Technological Exclusion: The digital divide has been highlighted to be one of the burning issues as far as the promotion of inclusive CSR in virtual economies is concerned. Co-minorities, especially in poor and middle-income countries, are commonly vulnerable to affordable internet access and digital devices as well as the skills they need to engage in online environments. This omission slows down the fair distribution of the benefits of CSR and continues to widen the socio-economic gap.<sup>(17)</sup>

As was emphasised in the case of the SPER Social Foundation, CSR can also be a key stakeholder to bridge this gap through direct investment in digital literacy, donating devices, and industry infrastructure in underserved areas. Specific companies, such as Microsoft and Google, have been using the digital inclusion initiative to stabilise their corporate social responsibility strategies, which empower communities and allow economic mobility, as highlighted by their Airband and Grow with Google, respectively.

II. Data Privacy and Ethical Data Governance: Virtual worlds amass immense quantities of data on their users that bring significant questions to the issues of consent, surveillance, and abuse. Embedded in the metaverse, in which interpersonal interactions are immersive and continuous, the threat to the unethical harvesting of data is increased. Customers are also demanding an open way of gathering, storing and utilising their data; therefore, privacy disclosure is a very important ethical signal that highlights CSR.<sup>(24,25)</sup>

The Maastricht University Data Protection as a Corporate Social Responsibility (DPCSR) Framework presents an effective framework for including privacy and cybersecurity in the CSR and ESG strategy. It stresses the data security by design and user

empowerment by design paradigms, where the companies are implored to instil the elements of impartiality and faithfulness in their data processing procedures.<sup>(26)</sup>

III. Greenwashing and Superficial CSR Branding: With CSR being utilised by companies as a powerful means of creating and developing brands, greenwashing, or the practice of companies overstating or lying about their sustainability, has risen. Greenwashing discredits real CSR projects, consumer credibility, and marketplace dynamics as it takes the focus off the real concerns, such as environmental and social impact.<sup>(27,28)</sup>

Research indicates that more than 40 percent of the environmental claims by companies are misleading, and companies would make use of vague language, selective disclosure, or give token gestures so that they are seen as socially and environmentally responsible.<sup>(29)</sup> Such a fraudulent activity not only destroys the standards of ethical principles but also jeopardises the entire practice of CSR. Stiffer requirements are urgently needed to be imposed by regulatory authorities like the Federal Trade Commission (FTC) to help keep greenwashing at bay and make it accountable.<sup>(30)</sup>

### Effect of Accounting Realism in the Metaverse and Socio-Psychological CSR Integration and Ethical Decision-Making

Accounting Realism in the Metaverse: Accounting realism is maintaining the financial transactions and asset reporting truthfully in a way that is economically substantial. The introduction of digital assets in the form of non-fungible tokens (NFTs), virtual real estate, and decentralised finance (DeFi) tools in the Metaverse questions this principle. Such assets are intangible, and yet they have true economic value, entailing valuation frameworks and disclosure norms that are new.<sup>(1)</sup>

Arguing that accounting companies have to adjust to the Metaverse by training employees, investing in digital infrastructure and abiding with the new regulations,<sup>(2)</sup> suggests that accounting firms have to reorient in several fields; In their study of Nigerian accounting firms, they discovered that the firms that engaged in Metaverse realism, via client engagements through virtual clients and digital reporting on their assets performed better and stakeholders were more confident in them. Complexities in the audit process are also presented with the Metaverse since determining ownership and authenticity of transactions in the decentralised environments would require new tools and protocols.<sup>(31)</sup>

Further, the Metaverse changes the space and time aspects of accounting. The transactions may cross jurisdiction and time zones, making it difficult to identify revenue and recognise revenue in terms of taxation and compliance. First <sup>(1)</sup> underlines the fact that the formulation of a case-based approach to financial reporting is required due to the lack of standardised regulations, and this brings about the necessity of the creation of new accounting standards that are related directly to the virtual economies.

II. The Socio-Psychological Lens of CSR Integration and Making Ethical Decisions: The socio-psychological lens brings a synopsis to the way individuals find CSR integration and engage in such activities in virtual settings. According to social identity theory and impression formation theories, Metaverse CSR activities have more impact on how stakeholders perceive organisations about their morality rather than competence.<sup>(16)</sup> Such perceived morality leads to trust, loyalty, and support among users of the products and services offered by the company.

Ethical leadership is a key factor in the CSR decision-making process. Discovering a positive correlation between ethical leadership and proactive CSR strategies with the mediation of top management team (TMT) passion,<sup>(22)</sup> supported the mechanism of linkage between top team flare and ethical leadership role in proactive CSR strategies. Ethical decision-making is increased by harmonious passion, and obsessive passion can cause reactive or compliance-motivated CSR. Such results reiterate the relevance of psychological qualities and leadership approaches towards virtual CSR governance.

In addition, integration of CSR in the Metaverse should take into consideration behavioural disinhibition, anonymity and avatar identity. These may corrupt ethical thinking and demotivate responsibility, and that is why ethical training and digital citizenship education are needed. The finding of <sup>(32)</sup> emphasises that the employees' socially responsible behaviours depend on their awareness about ethical leadership and CSR consistency, which further asserts the need to correlate corporate values and virtual conduct.

### Possible Future of accounting realism and socio-psychological in the Metaverse

The introduction of accounting realism into the metaverse is a drastic change opportunity in financial reporting, but it requires the establishment of effective regulatory structures that have the flexibility to support the valuation and audit of intangible virtual assets.<sup>(1)</sup> With the growth of virtual economies, large-scale international accounting organisations like IASB and FASB need to work cooperatively to introduce uniform guidelines that will capture the economic reality of metaverse deals, such as NFTs and metaverse real estate.<sup>(31)</sup> Moreover, the use of new technologies (especially blockchain and artificial intelligence) will redefine the accounting process, facilitating real-time reporting and building automatic compliance with smart contracts.<sup>(14)</sup>

Accounting education should be modified to expose the professionals to new concepts of this paradigm shift, such a digital asset management, virtual auditing methods, and ethics within decentralised systems, among others. Such curricular change is necessary so that future accountants can receive the skills they need to manoeuvre within virtual financial environments.<sup>(1)</sup> In addition, the international quality of metaverse dealings demands cross-jurisdictionality to bridge the gap in accounting standards to guarantee continuity, reliability, and legality across the global arena.<sup>(31)</sup>

Using a socio-psychological approach, in future, the study has to examine the variables of behavioural disinhibition, avatar identity and anonymity that affect ethical judgment and CSR practices online. Such reasons may corrupt moral reasoning and decrease accountability, which is why digital citizenship education and ethical training are necessary.<sup>(16)</sup> Moreover, leadership psychology is yet another field that needs further research; ethical leadership in combination with harmonious work passion is associated with proactive CSR strategies development, whereas obsessive passion might translate to reactive or compliance-motivated approaches.<sup>(22)</sup>

The creation of two sets of CSR measures customised to different audiences, including internal ones, such as the employees, and external ones, placed on the consumers and communities, may increase the accuracy of both CSR assessment and stakeholder relations approaches.<sup>(32)</sup> Cross-cultural studies



are also required to find how perceptions of organisational morality and competence differ across the globe, and therefore, the firms could tailor the messages of CSR to suit the various audiences.<sup>(16)</sup> Lastly, the inclusion of CSR in sustainable human resource management (HRM) can help foster an ethical culture and commitment in the firm over the long term, adding to the strategic worth of CSR in physical and virtual organisational environments.<sup>(22)</sup>

## CONCLUSIONS

Realism in accounting, association with the Metaverse and the use of socio-psychological approaches to CSR and ethical determinants are part of an important development in organisational governance. Increasingly expanding virtual economies pose challenges in effectively capturing digital assets in non-fungible tokens (NFTs), virtual real estate, and decentralised finance mechanisms, under conventional scenarios of accounting. Although intangible, these assets have a practical economic worth and require new valuation models, audit practices and regulatory frameworks.<sup>(1,31)</sup> Financial reporting and compliance are also further complicated by the Metaverse, introducing complications/ difficulties involving jurisdictional boundaries, time zones, and authenticity of transactions.<sup>(2)</sup>

Concurrently, the socio-psychological perspective can provide a good understanding of the perception of stakeholders about the CSR initiatives and ethical actions in the virtual worlds. Studies indicate that transparent and inclusive CSR communication leads to perceived organisational morality that has a major impact on stakeholder trust and loyalty.<sup>(16)</sup> The ethical leadership, especially that based on harmonious passion, creates proactive CSR plans and ethical decision-making in top management teams.<sup>(22)</sup> Nevertheless, the virtual world has other threats, including disinhibition of behaviour and lack of accountability as a result of anonymity and use of avatar identity, the risks that can severely misrepresent ethical thinking and disrupt CSR activities.<sup>(32)</sup>

Based on these findings, a number of recommended actions are put forward. International accounting committees like the IASB and FASB, to begin with, ought to liaise with one another to design universal reporting mechanisms and virtual auditory methods to be used in recording digital assets. These frameworks have to consider valuation, cross-border compliance, and taxation in order to increase transparency and consistency.<sup>(1)</sup> Second, universities need to update their curricula on accounting and business to incorporate blockchain auditing, metaverse economics, and ethical leadership in virtual environments, respectively, and prepare professionals working in the field of the changing digital environment in the future.<sup>(14)</sup>

Third, companies should make investments in emerging technology to improve data integrity, automate compliance and enhance real-time financial reporting in decentralised ecosystems, including artificial intelligence and blockchain.<sup>(31)</sup> Fourth, emphasis should be laid on ethical leadership development; training programs based on the self-determination theory should be used to foster harmonious passion and inform CSR strategy.<sup>(22)</sup> Fifth, organisations are advised to implement two-dimensional CSR measures that target internal stakeholders (e.g., employees) and external stakeholders (e.g., consumers and communities), so that corporate evaluation and outreach can be refined.<sup>(32)</sup>

Sixth, multinational companies have to engage in cross-cultural research to customise the CSR messaging to the specific moral and psychological demands of the various global markets and hence foster better alignment and support by the stakeholders.

<sup>(16)</sup> Lastly, an education program on Digital citizenship ought to be upheld so as to encourage accountability, empathy, and responsible Household authority in online regions of users and employees. With these recommendations, organisations could find a way through the ethical and financial maze of the metaverse and create a sustainable and socially responsible practice.

## FUNDING

The authors did not receive funding for the development of this research.

## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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