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Materializing corporate futures: how the EU navigated the Metaverse hype

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ABSTRACT

This paper investigates the European Union's approach to regulating the Metaverse, a corporate-driven digital future introduced by Meta Platforms Inc. in 2021. Through its 'Initiative on Virtual Worlds,' the EU envisions a regulatory framework for a 'third space' where information, financial transactions, data, and digital identities can flow seamlessly on a global scale. This study reveals that the EU perceives massive corporate-owned datafication not as a challenge but as a strategic opportunity to secure a leading role in global standards-setting for digital environments, positioning itself more as an enabler than a critical challenger. Analyzing EU documents, particularly those framing Web 4.0 and virtual worlds, the findings illustrate (i) how the EU legitimizes the concept of an imagined Metaverse, (ii) how this regulatory process promotes a corporate-centered digital future while sidelining issues of sovereignty and environmental sustainability, and (iii) how interactions among state entities, tech corporations, and civil society reveal shifting power dynamics.

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Metaverse; European Union; policy; globalization; sovereignty; overcoding

1. Introduction: big if true ... (and if it isn't?)

'Big if true ...', the first European Union report on the Metaverse stated skeptically. And yet, for almost three years, the Metaverse had claimed to hold in its grasp a common future for globalized societies: the ultimate convergence, a third space where information, money, data and people seamlessly flow on a planetary scale. From major companies to national and international organizations, the world had gotten itself ready for a leap into what Zuckerberg called the 'next chapter of the Internet.' Then, rather abruptly, the hype around the metaverse quickly faded and this global digital future lost its drive. Using this hype-cycle as a focal point, this study will discuss how future visions shape the interaction between technology firms and regulatory authorities. More precisely, it will investigate (i) the ways in which the European Union (EU) attempted to regulate an imagined Metaverse, (ii) how this regulatory process contributed to the materialization of a corporate future and (iii) how the interactions between the different actors involved in this process

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underscored a growing tension between the tech giants, state power and civil society. Through this analysis, this study argues that the EU's approach to the Metaverse reveals (a) an active endorsement of a corporate-driven future that prioritizes economic and regulatory interests over key concerns such as sovereignty, social impact, and environmental sustainability, and (b) a strategic use of democratic authority to present corporate visions as an already materialized global reality.

To explore the role digital futures play in the interaction between tech giants and regulators, this article proposes to approach futures as causal discursive factors; as powerful semantic constructs that fulfill key functions, drive technological change and influence policies. Futures, whether realized or not, inform us about the socio-political conditions that allowed them to emerge as viable and desirable visions, as well as the negotiations between conflicting interests that ultimately converged behind them. The Metaverse project, initiated by Meta Platforms Inc. in 2021 and originally conceptualized in 2018 (Rodriguez, 2021), presents an ideal case study for various reasons. Firstly, the 'Metaverse' represents a major attempt to construct a global future through a combination of large-scale investments and public outreach practices, such as the rebranding of the company from Facebook to Meta Platforms Inc. (hereafter Meta). Secondly, the launch of the Metaverse prompted a significant reaction from national and international political bodies who in turn began to work on possible regulatory frameworks. Finally, while actively promoting its Metaverse, the company underwent significant transformations, culminating in 2023 with mass layoffs of about 25% of its total workforce (Mascarenhas & Stringer, 2023) and the deprioritization of the Metaverse project.

To trace how the EU engaged with the corporate future of the Metaverse, this study will analyze the documents produced by the EU 'Initiative on Virtual Worlds': a regulatory process that led the European Commission to adopt a new strategy on Web 4.0 and virtual worlds. This case is of particular interest because it allows us to investigate how the EU understands and constructs its own position in relation to an allegedly boundless, global, private and unified digital space. As the studied documents show, the definition of 'Metaverse' remains still rather blurred, more connected to its mythology rather than to technological advancement. And yet, regulating a digital space that does not yet exist – a space intended to host human interactions and economic exchanges beyond the constraints of our planet's political and economic divisions – raises questions about the interplay between state power and tech giants. Accordingly, findings will show that the EU actively collaborates with the establishment of the Metaverse as a global future and deliberately sidelines issues that could pose an obstacle to its implementation. Rather than questioning the feasibility or necessity of the Metaverse, EU reports focus primarily on its potential for economic expansion and the need for the EU to establish and maintain a leading role in regulating virtual worlds. As the study will show, key questions around national sovereignty, environmental sustainability, centralized surveillance and social impact are raised by both research teams and EU stakeholders in different phases of the regulatory process. However, these critical observations are progressively watered down throughout the stages of the process, while the envisioned corporate future is increasingly portrayed as an impending reality.

Based on these observations, the study concludes that, in this case, the EU acts to establish rather than question corporate-driven futures. Instead of identifying and addressing key challenges posed by the Metaverse, the report aims to downplay concerns

that might hinder its rollout. By deliberately stepping back on political, environmental, and social issues, the EU aims to assert a dominant role in regulating future digital environments and secure a strategic position in standard setting.

2. Futures as social facts: strategic foresight and critical perspectives

The relationship between time and industrial societies has been a fundamental focus in sociology for many years. Drawing on Durkheim's concept of time as a collective representation that is shared and renegotiated among group members (2001 [1912]), subsequent scholars have further explored the notion of time as a socially constructed phenomenon (Abbott, 2001; Adam, 2013). In the study of futures, two primary and conflicting approaches can be broadly identified, each developing its own distinct genealogy.

The first approach, often called 'futurology' or 'strategic foresight', investigates futures as causally arising from present and past conditions, with the objective to predict possible scenarios (Adam & Groves, 2007; Andersson, 2018). From this perspective, futures are perceived as actual future outcomes, either desired or feared, that are causally originated by present conditions and can be strategically pursued or avoided. Within this framework, the evolution of Future Studies can be broadly divided into three business-led phases: (i) its beginnings in the mid-twentieth century, characterized by an emphasis on scientific progress and the rationalization of futures within the industrial paradigm; (ii) a more explicitly business-oriented approach during the 1970s and 1980s (Son, 2015); and (iii) from the 1990s onward, a shift toward a marked neoliberal perspective. This final phase, heavily influenced by corporate funding and think tanks (e.g., Siemens and BMW), ultimately led to fragmentation in the field and, in reaction, to the emergence of Critical Future Studies. The 'strategic foresight' approach has been variously employed in the development of corporate strategies (Miller et al., 2018; Spanjol et al., 2023), policies (Bontoux & Nascimento, 2023), cultural studies (Powers, 2020) and proposed as a pedagogical approach (Bol & de Wolf, 2023; Pouru-Mikkola & Wilenius, 2021). Its predictive vocation, often evoked in popular culture (Clardy, 2011; McKenzie, 2021), has garnered both fascination and criticism for its speculative character (Dunmire, 2010; Melnikovas, 2018).

The second approach, on the contrary, departs from past-centered explanatory models that attribute change solely to preexisting conditions and investigates future visions as present social facts that play an important role in the functioning of human groups (Adam, 2008; Beckert & Suckert, 2021; Bell & Wau, 1971). These studies span from gender issues (Brannen & Nilsen, 2002) to youth aspirations (Smith, 2017), politics (Kirsch, 2022), organizations (Beckert, 2020; Kaplan & Orlikowski, 2013; Thompson & Byrne, 2022) and globalization (Adam, 2006; Suckert, 2022). In tracing the history of this more constructivist approach, Andersson (2024) also identifies three waves. The first wave of Future Studies, developed in the post-war period through the work of scholars such as Reinhart Koselleck and Paul Ricoeur, viewed the future as a critical reflection on the limitations of human existence and a means to unlock political potential within a historical context. The second wave, emerging in the wake of World War II, was significantly shaped by the aftermath of the conflict. This approach redefined the future not as a civilizational challenge but as a domain primarily concerned with the issues

arising from high modernity, including the risk of catastrophic events. The third wave reflects the fragmented nature of contemporary future politics and adopts a postmodern or posthuman perspective. This approach addresses the global future as a concept linked to an increasingly ambiguous notion of humanity, seeking to integrate these broad ideas in ways that emphasize humanistic concerns about being and acting responsibly in the world. Overall, these approaches are characterized by a distinctive critical approach to the study of futures. This means investigating not only the ways futures are constructed, but to also to study the ways various forms of cultural hegemony may open up or close down imaginative possibilities. Critical scholars argue that the futures we envision are frequently influenced by the agendas of powerful interests in the present. This perspective shifts their investigation beyond mere academic inquiry to an ethical endeavor aimed at expanding possibilities rather than constraining them (Godhe & Goode, 2018). In line with this viewpoint, this study focuses on fundamental questions that underpin this critical approach, such as: ‘What and whose knowledges are being used to create these ideas of the future and where are the absences? What processes were used to make these ideas of the future, and why? And [...] how does this work address the necessity of decline as well as the possibilities of the new?’ (Facer, 2021).

3. Corporate futures, globalization and the overcoding of the state

Today, corporate futures are a major driving force in shaping sociopolitical change on a global scale. Corporate futures are strategically constructed by tech companies to attract investment, negotiate regulations with political bodies, and legitimize their role as champions of human progress. This form of cultural hegemony, referred to as ‘corporational determinism,’ enables companies ‘not only to market their products more effectively but also to build stronger claims for their right to influence debates and decisions about the governance of digital technologies’ (Natale et al., 2019). In this context, constructs like the Metaverse and other corporate futures function as placeholders (Riles, 2010), which occupy a time yet to come to legitimize present economic and political operations (Beckert, 2020). These temporal placeholders, however, are not inert dummies dropped somewhere at the horizon but possess significant structuring power. This power not only envisions an entire socio-technical system in the future but also sketches a roadmap that connects it to the present, prompting actions from both economic and political actors. The more a corporate future solidifies on the horizon, the more its re-structuring power extends further into the past, potentially redefining the relevance of historical and scientific events. Put differently, any vision that dominates a society’s shared horizon can be seen as a teleological force, shaping its collective identity and priorities through promises of what lies ahead. It is, inescapably, political.

From this perspective, analyzing the structural features of the Metaverse allows us to outline the transformations this corporate future *presently* demands from our social, political, and economic bodies. The Metaverse has been presented by Meta as the ultimate convergence; a third space where information, money, data and digital identities seamlessly flow on a global scale. A future in which, according to the sales pitch, the rules of the free market are the only boundaries within an otherwise limitless environment; the primary, if not the only, regulator of the world. In these terms, the Metaverse is much more than the ‘next chapter of the Internet.’ The Metaverse represents first and foremost

the next chapter of unfolding global capitalism, a cyber-utopia where state and democratic powers retreat to leave the management of social, political and economic matters to centralized, privately owned and purportedly neutral digital infrastructures (Corballis & Soar, 2022). The Metaverse project, in other words, represents a form of future-grabbing which aims at creating a space beyond (or above) the jurisdiction of states, thus opening the gates to new and potentially more aggressive forms of techno-feudalism (Suarez-Villa, 2009; Varoufakis, 2023).

The Metaverse can be seen, conceptually, as a form of global *overcoding*. Deleuze and Guattari (1987) employ the concept of overcoding to describe how capitalism imposes a homogenizing logic that simplifies and categorizes complex desires and experiences. Whereas different human groups develop social, political, economic and cultural codes that are specific to their own functioning, capitalism introduces a single code through which all other codes can be translated and compared. Nevertheless, the code of capital, as Pistor calls it (2019), does not emerge in relation to a located and defined human group but rather as an abstract empty dimension. Indeed, its primary function is not to define borders and articulate diversity, but to include as many codes as possible and generate an infrastructural unity based on standardized measures, formats and exchange protocols. In these terms, Pistor's work clearly highlights how the alignment of national regulations with the evolving paradigm of global capitalism occurs with the backing of states rather than against their wishes. The code of capital does not directly challenge either the existing multiplicity of political institutions or their current relations, but relies on their synchronized power to bring into existence a level playing field. A common ground that, on the one hand, enables states to expand their economies beyond national borders but, on the other hand, makes them directly dependent on this supplementary common dimension that largely exists outside their jurisdiction.

Digital spaces, Pistor argues, represent a further step in this process of overcoding of the state. While on the one hand she investigates the complex relationship between digital spaces, global capitalism and state law, on the other she states that 'digital coders create digital codes without much, if any, regard for existing laws and regulations. They ignore not only state law, but states themselves, as their codes easily crisscross territorial and jurisdictional boundaries' (p.186). In this sense, the Metaverse conceptually represents a utopian and all-encompassing expansion of this idea. The Metaverse does not seek to openly override state laws or challenge national identities. On the contrary, it promises to enable social groups at all levels – local, national, and international – to thrive within this new environment while performing, reinforcing, promoting and even monetizing their uniqueness. The Metaverse does not directly contend with power on a local level, but offers a supplementary and still empty dimension able to act as a unified system of translation and connection. A dimension where, in what appears to be a sinister corporate version of the Declaration of the Independence of Cyberspace (Barlow, 1996), governments are expected to possess limited or no sovereignty. Meta, on behalf of the future, asks them to leave the Metaverse alone.

As social, cultural, political, and economic relationships will be rerouted through this common digital space, the survival of local codes (and their respective communities) will become increasingly dependent not only on their translatability into common standards and formats, but also on the continuous existence of the Metaverse itself. Indeed, once a critical mass is reached, overcoding systems reverse their relationship of dependency on

the multiplicity they encompass. This raises two central issues. Firstly, as overcoding dimensions do not emerge from the communities they overcode, their establishment results from the strategic activity and cooperation of interest groups. Accordingly, as shown by Quinn Slobodian's work (2018), it is fundamental not only to identify these groups but also to trace their interactions and their ideological evolution. Secondly, while initially empty, overcoding dimensions progressively develop native actors that might come to occupy a position of power over local communities. In this sense, the Metaverse project not only represents an attempt to materialize the possibility of a global, privately-owned overcoding system but also creates space for the emergence of new, unknown actors whose power could significantly impact both global politics and individual states. Though possibly just a technological placeholder at this stage, the Metaverse has managed to ideologically occupy for a while the vision of the common future and trigger a series of reactions from both economic and political institutions. These reactions, as this study argues, provide a valuable source of information not only about the feasibility of this macro-project but, more importantly, about the willingness of states to accept and actively support this new form of global overcoding.

4. Data collection and methodology

To understand how future visions shape the interaction between tech giants and regulators, this study proposes an analysis of futures as causal discursive factors: powerful semantic constructs that fulfill key functions, drive social change, influence policies, and serve as critical points where future power relations are negotiated and laid out. Accordingly, to trace how the EU's regulatory process operates in response to the Metaverse as a specific instantiation of a corporate future, we will now review the main documents produced by the EU from the launch of the Metaverse project in 2021 until its quiet de-prioritization in 2023. This three-year timespan covers approximatively the first hype-cycle of the Metaverse as a viable and desirable global future, from Meta's 'terrifying even by Silicon Valley standards' investment (Bhattacharya, 2022) to the company's 'year of efficiency' that culminated with the layoff of 21,000 workers. Within this period, the EU requested the production of two reports and launched the Initiative on Virtual Worlds, which included a Call for Evidence and a Citizen Panel, and culminated in the publication of the so-called EU-Metaverse strategy in July 2023. In launching this final document, however, Margrethe Vestager, Executive Vice President of the European Commission for 'A Europe Fit for the Digital Age' and former European Commissioner for Competition, emphasized that no further regulatory initiative from the EU side was to be expected. As priorities shifted, she made clear that the EU did not consider the advent of massive virtual worlds any closer to happening and there was therefore no need to 'jump to regulation' (Reuters, 2023, July 6).

To account for the EU's initial engagement with the Metaverse, this study will retrace the process leading to the publication of the EU-Metaverse Strategy Document by analysing published data and official documents. It will focus on materials from the EU's Virtual Worlds initiative, beginning with a discussion of an early report commissioned by the European Council and culminating in the analysis of the final strategy adopted by the European Commission on 11 July 2023. As the EU seeks to secure a 'first-mover advantage' in setting global standards for metaverse technologies, the study will examine

the authorship, content and context of these documents to understand their role in shaping the final strategic document.

To this end, the study will trace the timeline of the publication of these five documents. Since the EU views citizen and stakeholder engagement as a cornerstone of democratic governance, these documents are produced by a diverse range of contributors. The initial report was created by a research team, while the subsequent four documents were authored either by EU officials or by citizens and stakeholders. Specifically, the Citizen Panel outcomes and feedback from the Call for Evidence were generated by citizens and stakeholders, while the Call for Evidence and the EU-Metaverse Strategy were produced by EU officials. Accordingly, the analysis will follow this structure:

1. Metaverse – Virtual World, Real Challenges (Research Team)
2. Initiative on Virtual Worlds
 - Citizen Panel Outcomes (Citizens)
 - Call for Evidence (EU Officials)
 - Feedback (Citizens and Stakeholders)
3. EU-Metaverse Strategy Document (EU Officials)

After gathering all the abovementioned publications, a qualitative content analysis was conducted to identify key themes, objectives, and priorities expressed by different contributors. This has been supplemented by actor mapping, which identified the roles and influence of different actors in shaping the policy outcomes. Actor mapping was particularly important in the analysis of the feedback from the Call for Evidence, which included 169 texts. In this case, the content analysis was supported by the use of AntConc (Anthony, 2023), a text-mining tool that was used to identify which digital elements were conceptualized as deserving the regulator's attention by the different actors. Finally, the results of the content analysis were employed to trace the policy process and map the influence of various contributions, connecting early inputs to the final strategic document.

5. The European Union and the metaverse: the initiative on virtual worlds

5.1. Metaverse – virtual world, real challenges

The first document on the topic of the Metaverse is a report produced by the Analysis and Research Team (ART), the European Council's in-house research service, in March 2022. While rather limited in size, this first report provides a definition of the Metaverse, positions it in a timeline as a possible future of the internet and eventually spotlights the issue of sovereignty as a key problem. It also does something else: it casts doubts on whether it will ever happen.

'Big if true ...', states the opening of the report, and proceeds to underscore how, while potentially revolutionary, the Metaverse 'could turn out to be something of an empty shell: a fantasy pushed by the social media industry to distract attention from some of their current difficulties' (p.2). Indeed, at a later stage the report also points out that 'for Meta, making the Metaverse a reality looks like a matter of survival' (p.7) because unlike other tech giants, Meta does not have a diversified business model and

its revenues come almost uniquely from social media advertising; a market that is virtually open to all competitors. In these terms, Meta's quest to find 'the holy grail of social interactions', as Mark Zuckerberg defined it (Newton, 2021), is understandable. Taking the forefront in developing the first large-scale virtual world would allow Meta to set the standards and, the report emphasizes, 'those who take control of the building blocks of the Metaverse now are set to become its future gatekeepers' (p.13).

The Metaverse, as defined by this report, presents five key features. It is (1) persistent, immersive, and massive, (2) synchronous, (3) both digital and real, (4) able to produce and exchange value and (5) able to operate across different platforms. In a nutshell, the Metaverse is conceptualized not just as a three-dimensional digital space, but as a boundless and independent new dimension which co-exists with offline reality. In this regard, the report highlights three major concerns. The first issue is that the Metaverse's absence of clear boundaries and governing frameworks is expected to further complicate the traditional concept of territorial sovereignty. In this case, the report foresees three possible scenarios: state-led governance, tech-activist utopia and corporate-led governance. The latter, it is underscored, would lead companies to exercise powers usually managed by the state:

'Despite the expectation that the Metaverse will not be subject to centralized control, its impact on users, not least the potential for intrusive surveillance, could be considerable. [...] This is not only an issue for citizens but also a matter for governments: the Metaverse raises issues around state sovereignty. We know from our experience of the first generations of the Internet the ancient adage that 'with great powers comes great responsibilities' cannot be guaranteed, not least by tech companies whose turnover in some cases exceeds the GDP of some nation states.' (p. 2)

Corporate futures, ART underscores, come with their own demands. In this case, such demands seem to amount to giving up, at least in part, national sovereignty: to allow powerful private corporations to govern supranational virtual spaces on their behalf or, even, on their own account. The Metaverse not only has the potential to represent a 'challenge to the existing notion of territorial sovereignty' (p.9) but, once its economic volume has reached a critical mass, also to invert that power relationship. In a nutshell, large scale corporations 'could assume powers in the Metaverse which are normally the prerogative of the state' (p.9).

The second issue is the likelihood of a struggle for standard-setting between major geopolitical and economic entities, primarily identified with the Chinese and Western blocs. A similar tension would probably translate into a struggle for technological dominance, with the possibility of the emergence of regional Virtual worlds. Finally, the report stresses that the Metaverse could have damaging effects on democracies, as it would further amplify existing problems such as disinformation and filter-bubbles. In conclusion, the report summarizes, all these issues boil down to a question: who will set and police safeguards in this virtual world?

5.2. Initiative on virtual worlds

5.2.1. Citizens' panel on virtual worlds

A Citizens' Panel is a democratic tool developed by the EU to incorporate the perspectives and opinions of citizens in the policymaking process of the union. The

Citizens' Panel on Virtual Worlds took place between the 24 February and the 23 April 2023 and involved 140 citizens randomly selected from all 27 EU Member States. In this case, citizens were asked to prepare a set of recommendations for EU policymakers by answering the following question: What vision, principles, and actions should guide the development of desirable and fair virtual worlds? Interestingly, this question implicitly ruled out the possibility of rejecting such development and suggests that fair and desirable virtual worlds are not only conceivable but also attainable through political action.

The panel proposed eight general principles and 23 recommendations, which were later published as an annex to the EU Metaverse Strategic document. The panel proposed 8 general principles and 23 recommendations that were later published as an annex to the EU-Metaverse Strategic document. The panel's recommendations address several critical areas concerning the impact of virtual worlds and articulate a thorough critique of the potential problems arising from the massive datafication of society. First, in the context of **labor**, they advise expanding EU labor laws to digital environments and limiting access to countries that fail to comply. Recognizing potential job losses, they advocate for the implementation of EU-led training initiatives aimed at preventing workers from exiting the labor market. Regarding **security**, they emphasize the need for an international police body powered by AI, though cautioning against privatization or monopolization of law enforcement. On **identity and privacy**, the panel stresses the protection of personal data, proposing a regulatory hierarchy with the EU at the top, and calls for tools like a color-coded system to manage data sharing transparency. **Access** is highlighted as a right for all citizens, with the panel advocating for a tech-welfare system to support low-income families. In **education**, they call for mandatory EU-designed training for teachers on virtual world use and ethics, coupled with a public awareness campaign. The **environment** also raises concerns, with the panel suggesting measures to create recyclable technology, limit obsolescence, and enforce penalties on companies for pollution. Finally, **health** is addressed through the recommendation of comprehensive research programs to monitor virtual worlds' impacts on physical, mental, and social health, which should inform policies across EU states.

In conclusion, the panel invites the EU to take a leading role in the development of virtual worlds. Adopting a rather colonial perspective, it invites the EU to become a 'pioneer' in the regulation of virtual worlds 'in order to maintain our democratic values and disseminate them to other countries' (p.27). This recommendation notably differs from previous ones, which highlight citizens' concerns about the potential dangers of systematic datafication and express a desire for fair, equitable, and sustainable virtual worlds. Perhaps unintentionally, this final recommendation reflects an aggressive, Eurocentric rhetoric that carries significant implications. It underscores that the panel is not only aware of the Metaverse's transformative potential but also willing to leverage it to impose EU standards and values through datafication. In this vision, the Metaverse becomes a digital frontier that offers a synergistic opportunity for the EU to expand its regulatory influence, shaping virtual worlds in alignment with its own ideals. Thus, the panel envisions a synergy with this emerging form of digital overcoding as a strategic means to establish new standards and a form of data governance that embeds EU values within the global virtual landscape.

5.2.2. *Call for evidence*

In 2023 (Q2), The European Commission launched a Call for Evidence (hereafter, the Call), i.e., a standardized procedure to collect public and stakeholder feedback via a dedicated platform. Titled ‘An EU initiative on virtual worlds: a head-start towards the next technological transition’, the call for evidence asked a broad range of stakeholders, from companies to single citizens, to express their opinion concerning the regulation of the Metaverse. Accordingly, the way the Call is structured sets both the framework and priorities which will guide the stakeholders’ responses.

This Call for Evidence expresses a perspective that sharply contrasts with the skepticism and caution of both the ART report and the Citizens’ Panel recommendations. For this document virtual worlds already exist. Shifting to the use of the present tense, they are ‘changing the way in which we engage with the digital space,’ ‘offer real-time, immersive and persistent environments that blend physical and virtual realities’ and ‘are already opening up a wide range of opportunities in many industrial sectors.’ At this stage, then, virtual worlds are already an impending and unavoidable future. Within this non-negotiable horizon, creating the conditions for gaining economic advantage becomes the main objective. The aim of the initiative is ‘to ensure that the EU is the best place to develop business opportunities in virtual worlds’ and that ‘EU small and medium-sized enterprises are not driven out of the market.’ Indeed, the main risk identified by the call is to have ‘a small number of big players becoming future gatekeepers of virtual worlds, creating market entry barriers and shutting out EU start-ups and SMEs.’ Accordingly, in terms of impact, the initiative ‘is expected to create more opportunities for EU industrial players along to value chain’.

In economic terms, then, the vision evoked by the Call for Evidence is that of an emergency: a new future is upon us, and we must ensure we remain competitive in the market. A secondary theme that emerges from the call is that of a Metaverse with EU characteristics, i.e., ‘open, interoperable, trusted, secure, privacy preserving virtual worlds respecting our legislation’. It is underscored that ‘it is crucial of the EU to be present in the development of virtual worlds and their governance’ to contribute to ‘the development of virtual worlds and Web 4.0 environment that respect EU values and rules’ and ‘to steer standardization efforts.’ It is notable that the document defines people’s empowerment exclusively through this perspective: the ability to benefit ‘from virtual worlds which respect EU values, way of living, and rules’.

5.2.3. *Feedback from the call for evidence*

The call was launched on 5 April 2023 and remained open until 3 May 2023, collecting 169 feedback entries from different stakeholders. The EU platform requested respondents to identify themselves according to a preset categorization, allowing us to determine the level of participation among different groups of actors.

As shown in [Chart 1](#), the most responsive actors were EU citizens, business associations, companies, and NGOs, which collectively account for 75% of the feedback. In terms of nationality, Belgium, Germany, France, and Slovakia make up more than 50% of the feedback. However, it should be noted that the number of EU citizens participating in the initiative and the number of participants from Slovakia may be inflated. A qualitative observation of the feedback revealed that about 13 or 14 feedback entries anonymously left by EU citizens from Slovakia are quite similar in theme, rhetoric,

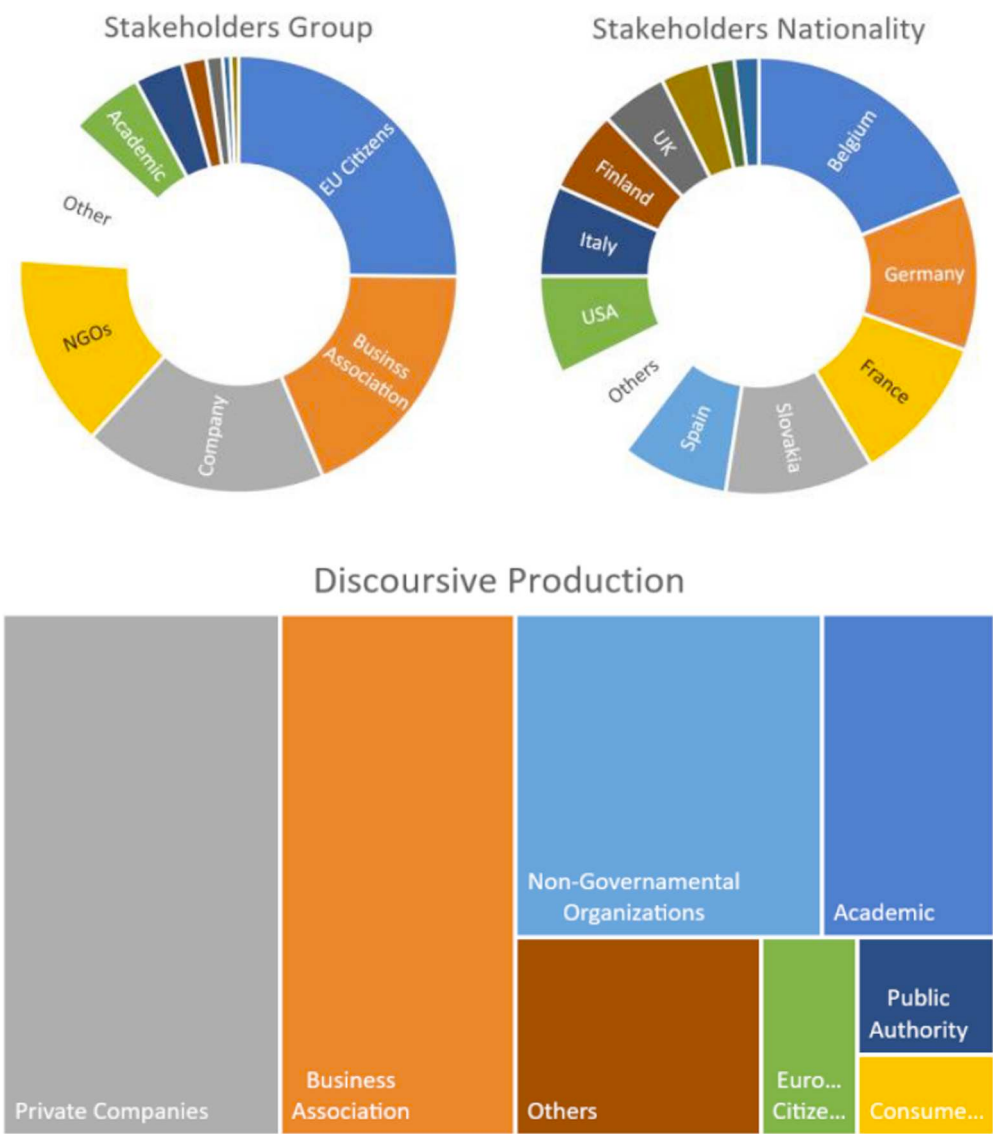


Chart 1. The three charts illustrate different ways of segmenting the stakeholders who participated in the Call for Feedback as part of the EU Initiative on Virtual Worlds. The first chart (Stakeholder Groups) shows the presence of various types of stakeholders, the second chart (Stakeholder Nationality) depicts the distribution by nationality, and the third chart (Discourse Production) highlights the contribution of each stakeholder group in terms of text volume (word count).

and word choice. However, since there is no way to prove that these feedback entries were left by the same user exhibiting troll-like behavior, the data presented above have not been adjusted. Indeed, in terms of length and complexity, it is clear that the actors who dominated the discourse around the Metaverse were primarily private companies, business associations, and NGOs, while consumer organizations, public authorities, and trade unions played a significantly minor role. To understand how different groups

of actors perceived the Metaverse, we analyzed all feedback to identify which digital elements were conceptualized as deserving the regulator's attention.

As shown in [Chart 2](#), both Companies and Business Associations mostly discuss digital constituents that refer to the Economic sphere (e.g., digital market or digital assets) or the Individual sphere (e.g., digital identity and digital experience). Companies pay more attention also to discussing the infrastructural sphere (e.g., digital platforms or digital infrastructures) and more commonly address the Metaverse in spatial terms (e.g., digital environment or digital ecosystem). Business Associations and NGOs share an interest in the political sphere (e.g., digital rights or digital citizens), which has also a relatively significant presence in the feedback of Public Authorities. Particularly interesting is also the feedback from NGOs which, unlike any other, devote some attention to the social dimension of virtual worlds (e.g., digital activism or digital divide). Despite the emphasis frequently put on the new social possibilities offered by virtual worlds, this aspect is usually ignored in the actual policy process.

Finally, while not evident from the chart, both Companies and Business Associations devoted substantial attention to digital twins. Originally developed to support the manufacturing industry, digital twins are digital replicas that allow data to be continuously transferred between physical and virtual worlds (El Saddik, 2018). In the Metaverse, however, these digital constructs would greatly exceed their function as aids in the remote management of manufacturing processes. While previously conceptualized as dense yet singular points of contact between offline and online realities, the possibility for digital twins to interact with each other within a common digital space redefine their nature.

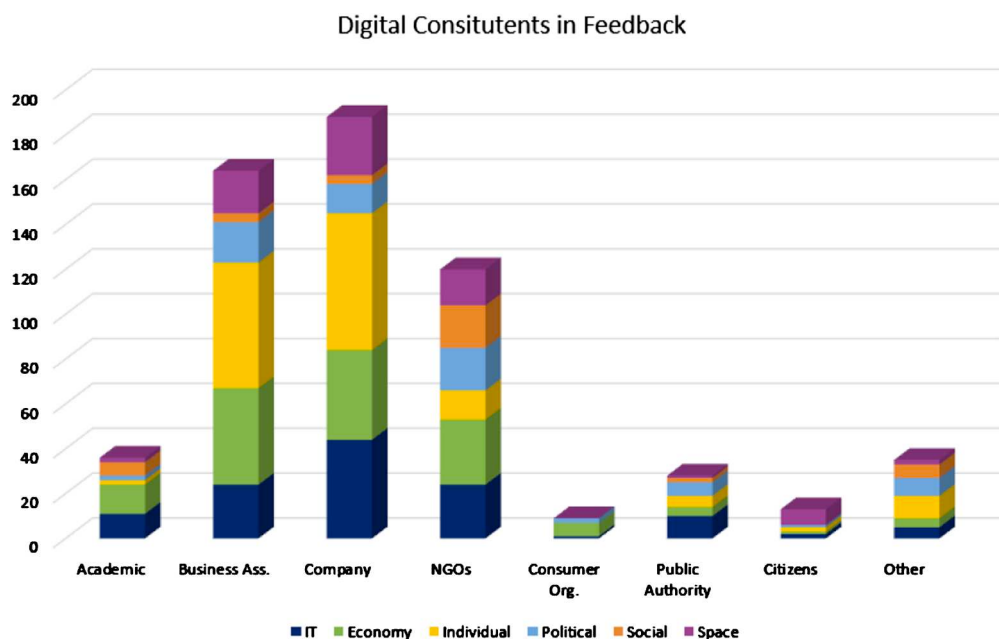


Chart 2. This chart illustrates how different stakeholder groups conceptualize and refer to the digital. The colors represent different typologies of digital, and the data are presented in absolute numbers to highlight the overall impact of each type.

Not only will digital replicas of both living and non-living entities interact as datafied beings, but these interactions are also likely to become essential to the functioning of large parts of society. In such a context, we will enter a situation of ‘datafication-by-default,’ where offline entities are systematically paired with a digital replica that becomes indispensable for their functioning or survival.

5.4. EU-metaverse strategy document

The EU-Metaverse Strategy is a 15-page document published on July 11, 2023, and represents the final outcome of the EU initiative on Virtual Worlds. The document is expected to rely on the feedback and recommendations collected in the previous phases and outline a series of actions that the European Commission proposes to undertake.

The introduction immediately clarifies that, in the view of the European Commission, virtual worlds are a reality: a future that ‘have become technically and economically feasible thanks to the rapid technological advances and an improved connectivity infrastructure’ and will lead to ‘a world where everything is seamlessly interconnected’ (p.1). With this framework established, the EU Commission proceeds to identify what is at stake in this significant technological development, focusing only on social and economic issues. In both these areas, however, the report mostly underscores the potential positive impact of virtual worlds. In social terms, it stresses how virtual worlds ‘will bring unprecedented opportunities’ (p.2) in public administration, culture and health. The potential challenges are listed in a single paragraph and, interestingly, do not address specific traits of virtual worlds but rather very general issues, such as hate speech and child protection. The issue of sustainability is mentioned in the last paragraph, only to quickly underscore how virtual worlds will offer ‘immense knowledge and understanding of how to optimize and redesign complex industrial processes, achieve more efficient production cycles and decrease waste of material’ (p.3). Of particular interest is the fact that, when discussing ecosystems, the report refers to what it defines as ‘industrial ecosystems’. This is the case of the economic stakes, where the report does not address specific challenges but simply highlights that ‘there is a wealth of opportunities for European businesses’ and that ‘workers will need to adapt’ (p.3). Overall, rather than setting the agenda, the EU strategy seems to be led by a ‘fear of missing out’.

The Vision and Strategy section discusses the cardinal ‘drivers to Europe’s leadership, competitiveness and technological sovereignty’ (p.5) in the Metaverse, which are identified as skills, business and government. The ‘skills’ section (3.1) interestingly begins by stating that the citizen’s panel underscored the importance of ‘user acceptance of technological developments’ and that ‘technological skills [...] are key for public acceptance and retention’ (p.6). This initial passage is meaningful for two reasons. Firstly, because it highlights the implicit concern that citizens might not accept, or even revolt against, this technological change. Secondly, and perhaps more importantly, because the Citizens’ Panel addresses the issue of ‘acceptance’ specifically in relation to workers’ rights and the need to preserve European jobs (recommendation 2), and not as a general issue among the public. However, the problem of protecting the European labor market is not discussed and the following section focuses on ‘attracting and retaining talent’ (p.6) and making ‘the EU an attractive destination for top-level ICT specialists from non-EU

countries' (p.7). The two following sections discuss, rather vaguely, the creation of educational resources for adults and children to learn how to manage their future digital lives.

The business section (3.2) revolves around the concept of EU 'industrial ecosystem' which 'is fragmented and faces challenges related to the uptake of new technologies and access to finance' (p.8). Accordingly, the following sections focus on EU investment in key technologies (e.g., VR/AR or digital twins) and on fostering 'matchmaking between virtual worlds developers and industrial users' (p.9), with a specific attention to cultural industries. The Commission moves then to underscore the need of a supportive 'business environment,' suggesting the creation of a series of regulatory sandboxes that could help start-ups develop future solutions. The European Commission also states that it is 'launching a study to analyze and promote the business opportunities that new form of digital cooperation offers and identify legal, administrative and economic barriers that prevent their uptake' (p.11), possibly with the intention of removing them. This concern is similar to that driving the Commission's apprehension around a possible monopoly for virtual worlds. As standardization is the key to interoperability, companies that can set such standards could create 'new market entry barriers for SMEs and start-ups in the EU' (p.11).

Finally, the space dedicated to the issue of governance and sovereignty beyond the economic framework is rather limited. After a first section (3.3) where the use of digital twins is proposed to further digitalize public services and cultural heritage, the report seems to defer addressing the problem (3.4) by evoking the future launch of a not better specified 'multi-stakeholder governance process' (p.14) and guaranteeing constant monitoring of the evolution of virtual worlds. In a nutshell, this section does not only fall short in proposing a possible way to govern the Metaverse; it actually gives up on it. A stark contrast with the conclusion which, a few lines later, boldly state that 'the EU should act now to become a major player in the nascent markets [...] upholding EU values and fundamental rights and ensuring that people are protected and empowered' (p.15)

6. Conclusion: the EU and the materialization of corporate futures

In examining how the EU engaged with the Metaverse as a corporate future, this article has highlighted two key issues: (i) a significant discrepancy between documents produced by EU officials and those generated by citizens, stakeholders, and researchers as part of the regulatory process, and (ii) a selective, functional use of the results from these external consultations. Retracing the process leading to the publication of the EU Metaverse Strategy, we see that from the beginning the ART report openly suggests that the Metaverse could be nothing more than an 'empty shell', a technological placeholder created by Meta to divert attention from its current difficulties. The ART report expresses open scepticism about the feasibility of building a Metaverse and raises concerns about its potential disruptive effects on national sovereignty – an issue variously highlighted also by the Citizens' Panel on Virtual Worlds. Nevertheless, these concerns are largely ignored in the subsequent Call for Evidence, which presents the Metaverse as an established reality and emphasizes its economic potential, along with the EU's need to secure a position of regulatory leadership. Stakeholder feedback remained diverse, reflecting the

varied interests of different actors, from market regulations to digital twins and digital rights. However, not all stakeholders' perspectives were proportionally reflected in the final EU-Metaverse Strategy. Once again, the document redacted by EU officials primarily addresses the business sector with an optimistic tone, reassuring readers about the technical and economic feasibility of the Metaverse and highlighting the unprecedented economic opportunities offered by this established corporate reality. On this basis, the EU-Metaverse Strategy reaffirms the need to support EU businesses and workers in transitioning to the new 'industrial ecosystem,' while only briefly addressing concerns over sovereignty, the environment, privacy, and social impact. In short, over the two years of consultations, the Metaverse shifts from being seen as an improbable and politically contentious future to a tangible and accepted reality.

The ways the EU readily adopted the Metaverse as its own future and began to rethink its priorities in relation to this corporate horizon highlight some significant issues. Firstly, the diachronic analysis of the EU documents underscores a progressive materialization of the new future. Observing the regulatory process, it is notable how the EU is actively invested in supporting the 'becoming-real' of this corporate future, shutting down any meaningful possibility of negotiation and shifting the focus from how-to-build to how-to-deal with the Metaverse. The question of whether political institutions should permit the development of the Metaverse is not even addressed; instead, Meta's project is presented as an unfolding reality. Secondly, within this process the interplay between documents produced by EU officials and those generated by citizens, stakeholders, and researchers is crucial. While engagement with citizens and stakeholders is portrayed as a hallmark of democratic practice, the content of these consultations is strategically received and filtered by regulators. More specifically, it is notable how EU-authored documents tend to emphasize both economic dominance and standard-setting authority as key pillars of its strategy for virtual worlds. Thirdly, as the discussion narrows increasingly to economic issues, the importance of other aspects is progressively downplayed. The political dimension is gradually sidelined and undergoes an interesting shift: from debates over national sovereignty in the Metaverse to examining the Metaverse's potential impact on national sovereignty. In environmental terms, there is little effort to quantify the expected impact of the Metaverse and assess its sustainability (or lack thereof). Perhaps paradoxically, the social aspect is also scarcely mentioned, receiving attention primarily in feedback from NGOs and academics. The potential for new forms of social aggregation within virtual worlds is not addressed by EU institutions. Instead, the focus occasionally shifts to the relationship between the single citizen and the entire Metaverse, highlighting a convergence of infrastructural and regulatory frameworks that overlooks communal dimensions. The Metaverse, as an hypothetical overcoding system, already de-materializes all forms of community by directly tapping into the most fundamental unit of multiplicity: the individual. In the Metaverse, all forms of communal identity – whether cultural, social, or political – do not relate to specific human groups. On the contrary, they are reduced to various combinations of individual data points and their measurable interactions, which are constantly on the verge of being either fragmented into thousands of individual elements or assimilated into the overarching unity of the Metaverse.

By sidelining major political, social, and environmental issues, and discussing corporate projects as inevitable and non-negotiable, the EU actively uses its democratic power

to create space for this new corporate overcoding. The way the EU frames the Metaverse as a global future clearly indicates its willingness not only to cede future-making to large corporations but also to legally and politically support their efforts in exchange for privileged market access and a position of dominance in the geopolitics of digital standard-setting. As these documents have shown, the EU views massive datafication not as an issue, but as an opportunity. In exchange for mobilizing its regulatory and democratic powers to support the monopolistic vocation of this new digital platform, the EU aims to gain first-mover advantage in negotiating market entry barriers and digital standards. Although at this stage the Metaverse might have been just a technological placeholder, analysing this process provided valuable insights into how the EU intends to interact with global corporate futures and their increasing influence. As the agenda-setting power of major tech companies continues to grow, this study indicates that political institutions are more inclined to serve as enablers rather than critical challengers, favoring economic development at the expense of social, political, and environmental concerns.

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