Virtual Visions: An Exploratory Comparative Analysis of EU and US Metaverse Governance Approaches

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Abstract. Metaverse technologies are rapidly emerging and providing innovative opportunities to both the public and private sectors. Despite technological progress, governments worldwide face challenges in keeping pace, resulting in a misalignment of technological capability and governance mechanisms. This research aims to assess the differences in European Union and United States metaverse governance approaches, focusing on how broader digital governance models are being extended into immersive technology domains. This assessment utilizes a qualitative exploratory document analysis and two expert interviews to identify the key governance mechanisms and thematic orientations shaping early policy responses. Despite actions that both the EU and the US are taking to establish metaverse governance models, explicit regulation of immersive technologies remains limited. However, both have existing strategies, regulations, and legislation on related technology topics, such as AI and data privacy, which are expected to directly and indirectly impact the development and management of the metaverse. Drawing on an existing geopolitical technology governance assessment model as a framework, this research upholds existing assertions that the European Union values risk management and user protections in its digital governance and regulation. In contrast, the United States takes two other approaches: the Silicon Valley techno-solutionist approach and the Washington D.C. business-focused laissez-faire approach. These broader digital governance cultures are reflected in how each actor is beginning to position itself with regard to immersive technologies.

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1 Introduction

The development of metaverse technology by the private sector for entertainment purposes is featured frequently in the news. As Uzun (2023, p. 231) asserts, the metaverse is "*the next step in the evolution of the Internet,*" transitioning the Internet into a robust, three-dimensional immersive experience. Nonetheless, through public-private partnerships, the public sector is increasingly using metaverse and hybrid technologies for the public good in new ways that experts could not have fathomed.

However, technological solutions are not a silver bullet to public issues. Also described as "*the next internet battleground*" (Anderson & Rainie, 2022, p. 5), the metaverse offers an unprecedented opportunity for both the public and private sectors, but major risks threaten to introduce or perpetuate a whole host of ethical concerns if not governed appropriately. Threats found in both the physical and digital realms also extend to the metaverse (Qamar et al., 2023), and users have reported experiencing hate crimes, sexual assault, cyber and financial crime, and privacy abuse (Gómez-Quintero et al., 2024). Because of often ambiguous and insubstantial governance measures on both micro (platform) and macro (government) scales, offending users may perceive a positive cost-benefit, with risk and effort needed relatively low and potential rewards high (Gómez-Quintero et al., 2024). INTERPOL (2024) has also highlighted that the agile and digital nature of the metaverse provides perpetrators with the ability to leave the crime scene seamlessly and without leaving evidence behind, as they would in the analog world. The metaverse also raises questions and concerns around the collection and use of personal identifiable information and data privacy issues (Congressional Research Service, 2022), increased surveillance under the guise of accountability (Di Porto & Foà, 2023), ambiguity around data ownership and intellectual property, disparities in implementation across regions and demographics (Congressional Research Service, 2022), and rising levels of crime in general.

Thus, the rise of the metaverse as a converged digital-physical environment invites new questions about governance across virtual spaces that are technically interconnected, but socially and legally diverse. While the developments are often driven by the private sector, governments (even as potential eventual users) experience difficulty in acting promptly enough to address evolving opportunities and threats. For example, with jurisdictions across the world diverging in their treatment of data protection, platform accountability, and virtual assets, the metaverse may risk becoming a fragmented legal landscape unless universal principles or interoperable standards are established. As is true with other emerging innovations, the technology behind the metaverse is developing more rapidly than governments can regulate (Uzun, 2023).

Overall, understanding how different governments approach metaverse governance is crucial, as legal and regulatory frameworks will shape the rights, risks, and responsibilities of users, developers, and platforms in these virtual spaces. Admittedly, the present-day global metaverse governance landscape varies. For example, South Korea has enacted the world's first metaverse-specific law while simultaneously introducing non-binding ethical guidelines to guide industry development (Ministry of Science and ICT, 2024). The United Arab Emirates promotes a principle-based, innovation-friendly approach through its Dubai Metaverse Strategy and Responsible Metaverse Self-Governance Framework (United Arab Emirates, 2023), while China integrates metaverse identity into its broader surveillance and digital governance infrastructure (Hung, 2022).

Furthermore, regulation may often overcorrect in other regards, as seen in the European Union's (EU) risk aversion and the United States' (US) overemphasis on techno-solutionism and private sector prioritization. Despite the EU and US' shared democratic values and structure, and close historic and strategic partnership, the two governments take opposite-side-of-the-spectrum approaches, which makes them prime for comparative analysis.

Given the relatively nascent state of research on the metaverse and its usage in the public sector, this paper explores emerging metaverse technologies and potential use cases and opportunities for the public sector, thus establishing incentives for government regulation. Exploring these governance models not only reveals regulatory gaps, but also deeper tensions in the interplay between innovation, control, and fundamental rights in a rapidly evolving digital world.

The study will then build on these assessments to answer the following research question:

How do the EU's risk-averse regulatory orientation and the US's techno-solutionist and industry-friendly stance shape their respective approaches to metaverse governance?

In the research that follows, we present overviews of the related research, introducing metaverse technologies and their associated characteristics. The article then outlines areas of opportunity for public sector use of the metaverse and identifies the values present in EU and US digital governance models. Following this, we explain our research design by providing a description of our qualitative analysis approach and then offer a landscape of metaverse and related governance mechanisms. Finally, we present the findings of our comparative analysis, rooted in the predetermined values and geopolitical governance framework.

2 An Overview of Metaverse Governance

2.1 Interpreting the metaverse and virtual worlds

The metaverse is a multifaceted and evolving socio-technical system (Dwivedi et al., 2022). There are no uniform definitions of the terms *metaverse* and *virtual world,* and while some experts use them interchangeably, others argue for a differentiation between the terms. Generally, *virtual worlds* are nascent and developing, while the *metaverse* is used to describe virtual worlds that have fully matured (Di Porto & Foà, 2023). The European Union also favors the term *virtual world* in its strategy documents (European Parliamentary Research Service, 2023), although language on the topic is subject to change by source.

Broadly, the metaverse can be examined through a lens of four dimensions: as an environment, an interface, an interaction space, and as a social value holder (Dwivedi et al., 2022). These dimensions might range from highly immersive, realistic simulations to abstract, rule-defying virtual worlds, and from more basic sensory interfaces to identity-rich spaces for collaboration (Dwivedi et al., 2022). Overall, despite the varying terminology used, the technical characteristics that define metaverses and virtual worlds tend to stay consistent among experts. Research conducted by Gómez-Quintero et al. (2024) consulted 27 specialists with knowledge in metaverse and other digital crime. Consistent attributes proposed by the stakeholders included *"multiuser, multipurpose, user-generated, spatial, immersive, persistent, multiplatform, interoperable, and involve ownership and avatars"* (Gómez-Quintero et al., 2024, p. 3). Other experts from this group consulted have put forward the following attributes—scalable, synchronicity, open, decentralized, heterogenous, virtual-physical hybridity live, and hyper spatiotemporal—although these are more subject to vary. In 2023, the World Economic Forum built onto pre-established definitions by introducing the concept of interoperability as a requisite for the metaverse. However, this idea is not supported without exception, as the United States government views interoperability as an eventual characteristic of more mature, future metaverse technologies (Di Porto & Foà, 2023). For clarity's sake, this research will exclusively use the term *metaverse* to refer to metaverse and virtual world technologies, as appropriate.

The metaverse is further supported by a combination of extended reality (ER), augmented reality (AR), and virtual reality (VR) technologies (Uzun, 2023), and an amalgamation of other technologies such as artificial intelligence (AI), Internet of Things (IoT), 5G, and distributed ledger (e.g., blockchain, non-fungible tokens (NFT), and decentralized autonomous organizations (DAOs)) to facilitate actions such as commerce and interpersonal communication within the metaverse (European Parliamentary Research Service, 2023). As technology capabilities advance, experts anticipate that the use of the metaverse will become more ubiquitous in the coming years, shifting from users primarily accessing the metaverse using specialty virtual reality and augmented reality devices to using daily personal devices like laptops and smartphones (Gómez-Quintero et al., 2024).

2.2 Opportunities for the public sector

Digital transformation is an ongoing process for many public sector organizations across the world, with common objectives such as increasing public value through improved efficiency, transparency, and security of public services and internal administration.

Public sector interest in the metaverse accelerated during the COVID-19 pandemic and has sustained since (Mailangkay, 2024). For example, some early speculations of VR-based public services have been captured in the United Nation's 2022 biannual e-government survey (Lnenicka, 2024).

Furthermore, public organizations are discussing leveraging the metaverse technologies to enrich digital service delivery in areas where immersive, interactive, or spatial experiences can add value (Lnenicka, 2024), such as the fields of healthcare, education, manufacturing, and defense (European Parliamentary Research Service, 2023). For example, in a healthcare-oriented metaverse, doctors can virtually train for medical procedures and patients can obtain care from medical professionals remotely. Students can learn virtually and engage in a more "traditional" academic setting, such as a virtual classroom, rather than over a video call platform as popularized during the COVID-19 pandemic. In addition, businesses and militaries can create tools like digital twins within the metaverse to enhance and streamline design and manufacturing practices (European Commission, 2023a).

Additionally, governments worldwide have a vested interest in leveraging these opportunities to deliver services more efficiently and equally to residents and citizens who may not have had access to or interest in traditional, analog methods. For instance, Tuvalu—a small island nation facing significant threats from climate change and rising sea levels—uses the metaverse to address real-world challenges to serve its people. Experts predict that Tuvalu could be submerged by 2050, leaving the country uninhabitable (Yeo, 2024). To respond to this threat, the Tuvaluan government announced the Future Now Project, which aims to create the world's first digital completely digital nation. The project will feature digital twins of the islands that citizens can navigate, digitized administrative

documents and data, and virtual archives where citizens can interact with culturally meaningful traditions such as family stories and traditional dances (Yeo, 2024). Tuvalu's government is also seeking digital statehood recognition from other governments, which would establish a path to sovereignty (Accenture, n.d.). Current international law requires a clearly defined territory and permanent population for state sovereignty, but Tuvalu may lose both in the coming decades. Due to the slow-moving and reactionary nature of international law, Tuvalu is not able to rely on existing legal standards alone and instead is using metaverse technology to imagine a new version of statehood, when traditional options fall short (Yeo, 2024).

In addition, the Maldives, Sweden, Estonia, and other countries have embraced metaverse technologies, at one point maintaining embassies with limited functions in Second Life, a popular online virtual world platform from the mid-2000s. Moreover, the micronations of Principality of Sealand and the Dominion of Melchizedek have both been built on blockchain technology (Rothe et al., 2024). Furthermore, in 2021, the city of Seoul pledged to invest 3.9 billion won (approximately 2.5 million euros) to develop a new metaverse platform called "Metaverse Seoul." This platform would allow citizens to file civil complaints, receive consultation from civil servants, and take part in Korean cultural experiences such as festivals and memorials (Seoul Metropolitan Government, 2021), all innovative channels for increased citizen engagement and civic participation.

On the one hand, the metaverse can support new forms of interaction between citizens and public authorities, offering opportunities for more engaging, human-centered interfaces within digital government systems (Lnenicka 2024). On the other, to ensure that metaverse technologies are being governed appropriately to serve the public, a number of factors must be deliberated. These include the role and responsibility of platform moderators and managers (Gómez-Quintero et al., 2024); the future of digital identity and personhood, especially in the context of online accountability (Gómez-Quintero et al., 2024); ethical considerations (Lnenicka, 2024); user privacy, choice, and autonomy (Arbanas et al., 2023); and "protection by default" and "trust by design" principles (Arbanas et al., 2023).

2.3 Governance value interplay

Governance in the metaverse unfolds across multiple, layered dimensions that reflect both its technological architecture and social complexity (Dwivedi et al., 2022). As such, any successful metaverse governance will need to strike an appropriate balance between protecting user rights and encouraging innovation. The metaverse brings together diverse virtual spaces with varying rules, users, and values. As such, issues of interoperability, privacy, accountability, and cross-border regulation emerge with urgency (Dwivedi et al., 2022).

Furthermore, early research suggests that governance in the metaverse is not only about regulating a new technology (governance-of-metaverse) but also about reimagining how societies might operate when rules are embedded in code, space is borderless, and identities are fluid (governance-by-metaverse) (Dwivedi et al., 2022).

The governance landscape is further complicated by the presence of decentralized technologies such as non-fungible tokens (NFTs) and decentralized autonomous organizations (DAOs), which offer new models of ownership and collective rulemaking, yet also challenge traditional legal and institutional frameworks (Dwivedi et al., 2022).

One theory that defines the interplay between values, priorities, geopolitics, and state autonomy is the Four Internets model by researchers O'Hara and Hall (2018). This model uses the lenses of digital sovereignty and fragmentation to identify and assess rationales behind the digital governance models of the European Union and the United States. O'Hara and Hall's Four Internets include Brussels' Bourgeois Internet, Silicon Valley's Open Internet, DC's Commercial Internet, and Beijing's Authoritarian Internet, each with their own set of defining goals and approaches. Brussels' internet is characterized by its user-centric focus aimed at defending *"civilized bourgeois public space[s] against incivility, taking action, for example, against disruptors"* (O'Hara and Hall, 2018, p. 6). Silicon Valley's internet, in contrast, is innovation-focused, identifying technology as a potential (and often likely) solution to any problem users may face. Washington, DC follows a model that prioritizes the financial and commercial benefits of technological development, rewarding close relationships between Big Tech and politics. Finally, the Chinese model prioritizes state ownership and assertive growth into international digital spaces.

The EU and US models will be further expanded on in the discussion section, but in the meantime, they provide helpful framing on the interconnected relationship between a model's history (such as the creation of the EU or the birth of the Internet), government values (including risk mitigation, innovation, commercialization, and state autonomy), and regulatory mechanisms (a centralized versus fragmented approach).

3 Research Methods

3.1 Data collection

To conduct this research on metaverse governance, we used a combination of primary and secondary data content analysis.

Primary data came from the industry stakeholders with extensive experience in digital policy—particularly through Transatlantic and larger geopolitical lenses—and proven expertise on metaverse emerging technologies. A purposive sampling technique was applied to identify relevant interview partners. Potential participants were selected through web searches and personal networks, based on their engagement with metaverse-related topics and governance issues. Where contact information was available, individuals were invited to participate via email, with an explanation of the research objectives and interview purpose. Two positive responses were received, and interviews were conducted with participants actively involved in the field.

The overview of interview partners is presented below:

Tab. 1 – Experts overview

Expert	Role	Industry	Expertise	Application to metaverse
A	Data and privacy policy manager	Tech	AI policy and regulation European politics and technology	Data privacy, content moderation, and platform accountability
B	Senior policy analyst	Research	Geopolitics and governance of emerging technologies, e g. digital public infrastructure	AI governance, international digital policy, strategic regulation

The semi-structured interviews followed an interview guide, focusing on the state of digital regulation in the EU and US, as well as the opportunities and threats of each government's approach. The aim was to elicit detailed, expert-level insights into the contextual factors influencing how metaverse governance develops in the two contexts. The interviews helped inform larger thinking about the characteristic differences between broad digital governance approaches of the European Union and the United States, using artificial intelligence and digital public infrastructure (DPI) as grounding points. Both AI and DPI are two key emerging technologies that are fundamentally integrated into the metaverse, so the speakers' insights were valuable in reinforcing broader learnings from the literature review. The purpose the interviews served was general framing of the geopolitical and political aspects of each government's approach.

Secondary sources—such as academic articles, government reports and policy papers, and consulting reports—were reviewed to establish a general idea of the current state of regulation and governance. The type of sources available did vary. They were identified through purposive browsing of relevant institutional websites (e.g., European Commission, US federal agencies), professional platforms, and keyword searches using terms such as metaverse regulation, immersive technology governance, and digital policy. This engagement with secondary materials helped identify dominant framings, gaps, and conceptual tensions in current public discourse.

Because the United States does not currently have federal regulation explicitly addressing the metaverse (nor a streamlined digital policy framework comparable to the European Union), academic literature on the US approach to metaverse governance remains limited. As a result, we leaned heavily on gray literature for this part of the research, using sources from well-established international consulting firms and articles and reports from the US and EU governments.

3.2 Data analysis

Relevant and related metaverse governance mechanisms (including strategies, regulations, legislation, consultations and convenings, and initiatives) were identified during interviews and documents analysis as part of a data collection mapping exercise and were then grouped by the type of governance lever. These mechanisms covered a wide range of policy areas, from data privacy and user protection to artificial intelligence funding and virtual reality development, all of which are likely to shape the inner workings of the metaverse.

Because of the complex nature of the metaverse, the regulatory ecosystem will likely consist of interconnecting mechanisms and tools to sufficiently address new challenges, necessitating a broad look at specific and related levers. This approach enabled a flexible analysis of how existing digital governance measures, often not explicitly labelled as "metaverse governance," may nonetheless inform the emerging policy landscape in this domain.

4 Findings

European and American concepts of the metaverse share similar qualities, such as those featured first in 2022 policy papers in the European Union and the United States. Collectively, these definitions focus less on the characteristics and qualities of digital worlds and more on the differentiation between digital and physical worlds (Di Porto & Foà, 2023). The European Parliamentary Research Service described them as "*an immersive and constant virtual 3D world where people interact by means of an avatar to carry out a wide range of activities. Such activities can range from leisure and gaming to professional and commercial interactions, financial transactions or even health interventions such as surgery"* (European Parliamentary Research Service, 2022, p. 1). The US Congressional Research Center introduced the metaverse as "*an immersive and persistent virtual world where users can communicate and interact with other users and the surrounding environment and engage in social activities, similar to interactions in the physical world"* (Congressional Research Service, 2022, p. 3). Despite the similarities in conceptualization, each government takes a distinctly unique approach to addressing the metaverse and related emerging technologies.

4.1 European Union landscape

The European Union is relatively advanced in its metaverse governance approach—as demonstrated by its Strategy on Web 4.0 and Virtual Worlds framework released in 2023—and invests significant funding into developing associated technologies. In fact, more than half of European organizations working on metaverse-related projects receive funding from the EU (Joint Research Centre, 2023). In addition to the framework and funding opportunities, the EU has enacted a number of well-established regulations—such as the General Data Protection Regulation, Digital Services Act, and Digital Markets Act—that guide the development and management of digital spaces in the European Union and beyond.

One significant challenge the EU is expected to face in its regulatory efforts is the complicated dynamic introduced by its multi-state government model. *"For European policymakers, one challenge is of jurisdiction – of how to regulate a new infrastructure of global computing. This reflects broader concerns with regulation, where many countries are now considering the efficacy of domestic regulations in dealing with multi-national firms"* (Egliston et al., 2024, p. 14).

An overview of the metaverse governance landscape in the European Union is presented below. Organized and grouped by type of mechanism, the list includes metaverse and related strategies, regulations, legislation, consultations and convenings, and initiatives. Despite the actions the European Union is taking (to be outlined momentarily) to establish a framework strategy of governance for metaverse technologies, neither the EU nor the US have fully developed and executed a governance plan. However, both governments have existing regulations and legislation on related topics, which are expected to have a significant impact on the development and management of the metaverse. The following section will outline US governance mechanisms in the same format.

Strategy

- **Strategy on Web 4.0 and Virtual worlds** addresses the rapid development of digital and hybrid technologies—including metaverse technologies—and ensures they promote real-world European values and principles (European Commission, 2023b).

- **2030 Digital Decade Plan** provides a comprehensive framework for EU digital action on the following: "*a digitally skilled population and highly skilled digital professionals, secure and sustainable digital infrastructures, digital transformation of businesses, digitalization of public services*" (European Commission, 2024b).

Regulation

- **General Data Protection Regulation** imposes data privacy and security requirements on digital entities and platforms that collect data from Europeans. This is considered the most robust and strict data protection law in the world (Wolford, n.d.), but may not cover invasive forms of future data collection in the metaverse (Garcia, 2023).

- **Digital Services Act** & **Digital Markets Act** establish a comprehensive accountability system for internet

providers that protects the fundamental rights of users and enforces accountability for online platforms in Europe and ultimately abroad (European Commission, 2023b). However, experts are currently unclear how the protections will transfer to the metaverse (Di Porto & Foà, 2023).

- **Digital Identity Framework** sets out to provide Europeans with a digital wallet feature that facilitates digital payments and identity verification (European Commission, 2024b), both of which are key functions in the metaverse.

Legislation

- **Artificial Intelligence Act** addresses the risk that AI poses, sets guidelines on specific use for developers and deployers, and reduces financial and management burdens for smaller businesses (European Commission, 2024a).

- **Data Act** delegates the Commission to encourage interoperability of data spaces and data processing services and supports horizontal interoperability between companies of all sizes (Di Porto & Foà, 2023).

Consultation and convening

- **Citizens' Panel on Virtual Months** discusses recommendations for the Commission on implementing virtual world work based on citizens' values and expectations on topics such as work and job markets, digital identity in virtual worlds, and connectivity and access (European Commission, n.d.).

- **European Virtual and Augmented Reality (VR/AR) Industrial Coalition** convenes policymakers and industry experts to identify opportunities and challenges, inform policymaking, and encourage investment (European Parliamentary Research Service, 2023).

Initiative

- **Digital twin programs,** including **CitiVerse, Destination Earth (DestinE), Local Digital Twins for Smart Communities,** and **European Digital Twin of the Ocean,** create immersive, accurate environments to facilitate scientific research and medicine, urban planning and management, and policymaking (European Commission, 2023c).

4.2 United States landscape

In comparison to the EU, the US takes a lax regulatory approach to digital policy (Expert A). In general, federal frameworks are industry-specific, regulating the finance and healthcare sectors, while state jurisdictions are responsible for upholding broader consumer protection rules (Arbanas et al., 2023). Because the United States lacks mechanisms such as a federal data protection agency or a federal metaverse privacy law (Deloitte, n.d.), states are left to fill in the regulatory gaps with jurisdictional action, as demonstrated with California's legislation below. This jurisdictional approach creates a piecemeal and fragmented data regulation and enforcement ecosystem (Deloitte, n.d.) and few governance levers to pull. Misaligned actions also exist at the federal level; it is possible (and common) for the administration, Senate, and House of Representatives to have differing and opposing goals. Given the deeply integrated nature of metaverse technologies, platforms, and issues, the US' traditional fragmented approach limits which, and how many, governance levers the country can pull. Policies that are in place encourage innovation, limit private sector liability, and allocate funding for metaverse-related technology projects.

Strategy

- **Executive Order on Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence** establishes standards for AI safety, security, and privacy—while outlining user civil rights and commercial protections—and promotes innovation and domestic and international competition (White House, 2023). This, however, may not create lasting change because it is not binding, and priorities will change with the Trump administration (Expert A).

Legislation

- **Section 230 of the Communications Decency Act** grants online platforms the ability to moderate user content without being held legally liable, which contributed to the growth of the internet during its infancy (Deloitte, n.d.), although Section 230 is currently contested in the US and platform immunity may change

(Arbanas et al., 2023).

- **California's AB 587** requires social networks to publish content moderation policies and provide descriptions of their processes for flagging and reporting problematic content like hate speech, racism, extremism, dis- and misinformation, harassment, and political interference (Arbanas et al., 2023).

- **CHIPS and Science Act** authorizes funding to support research and development of key advanced communications technology and immersive technology (Congressional Research Service, 2022).

Consultation and convening

- **Congressional Caucus on Virtual, Augmented, and Mixed Reality Technologies** leads Congress' action on metaverse-related technologies. Established in 2017, the Caucus appears to be currently inactive (Garcia, 2023).

Initiative

- **Declaration for the Future of the Internet** asserts and recommits to international goals for the future of the internet, including openness, digital freedom, interoperability, and decentralization (Congressional Research Service, 2022).

5 Discussion

This study examined how two influential actors—the European Union and the United States—are beginning to govern the metaverse through broader digital policy mechanisms. While explicit metaverse regulation remains scarce, early signals in both jurisdictions reveal key differences in institutional logic, regulatory style, and governance priorities. These differences stem not only from legal structures (e.g., centralized vs. decentralized governance) but also from contrasting views on risk, innovation, and the role of the state in shaping emerging digital environments.

To meaningfully compare the two approaches, we focus on two dimensions observed across interview and document data: (1) whose interests are prioritized, and (2) how risk and innovation are framed in relation to immersive technologies. While both regions acknowledge the metaverse as a potential growth area, their governance trajectories reflect deeper normative and structural differences. In what follows, we discuss how these orientations influence emerging governance mechanisms, such as strategic positioning, regulatory design, and stakeholder engagement, and consider what they might mean for future public sector involvement in immersive technology governance.

5.1 Risk aversion

By outlining the EU's focus on long-term risk management and mitigation—ultimately for better user outcomes—Expert A reinforced the arguments O'Hara and Hall (2018) made in their Four Internets model assessment of the European Union's digital regulation approach. Again, the Brussels Bourgeois Internet values virtue, prudence, and civility. Because these objectives are long-term and not dependent on the whims of whichever major company is developing metaverse technology, the EU benefits from stronger political stability than the United States does. As Expert A explained, "*the fundamentals of that are almost similar in every situation: you look at privacy, you look at platform accountability. The EU is ahead, not necessarily because they're better at it, it's just because their processes matter more. The politics of it can at most postpone things, but it's done within a process of 'this is the policy that matters and we're going to push it through.'*" As demonstrated in the findings above, the European Union has a relatively robust and stable metaverse governance approach, including metaverse- and virtual world-specific strategies and other adjacent strategies and regulations.

5.2 Techno-solutionism

In direct contrast to the EU's approach of prioritizing policy over politics, the US takes a politics-first approach to governance. Rather than placing users at the center of governance decisions, the dominance of technology firms (specifically Big Tech) is emphasized above all else (Expert B). This view of techno-solutionism aligns with O'Hara and Hall's (2018) vision of the Silicon Valley Open Internet governance model. This digital model encourages technology providers to innovate fervently in a move fast and break things style, with the end goal of achieving public good through technology. Such emphasis leaves risk management conversations to develop organically, often as a second thought and to the detriment of users' wellbeing. In comparison, the United States' governance landscape is more limited, with existing related legislation and levers focused on private sector innovation and financial success.

5.3 Private sector focus

Additionally, Expert B argued that business culture in the United States—coupled with the country's standard light touch and laissez-faire regulatory approach—has greatly influenced innovation, as seen during the inception and growth of the early internet. Big Tech wields immense influence in the US through its lobbying efforts and close political relationships in Washington, DC, and O'Hara and Hall (2018) further advance this idea in their DC Commercial Internet model, which discusses the mutually beneficial (financial and political) relationship between Big Tech and Republican politicians. This focus on private good—rather than public good as in the Silicon Valley model—is likely to intensify as Republicans take control of the Presidency, Senate, and House of Representatives in early 2025. However, as Expert A pointed out, discussions around values and goals may have a limited impact in reality. "*Fundamentally, that [values and goals] doesn't matter, because there are limited levers that can be pulled in the United States within a very fragmented and very unresponsive set of actions."*

6 Conclusions

This research focused on exploring the landscape of metaverse opportunity and regulation in the US and EU—two strong players in the global technology arena—to establish the necessity for robust governance. This research has found inherent and fundamental differences between each government's digital models and priorities, which impact their metaverse governance perspectives. The United States values innovation and business opportunity, often overlooking user rights and protections, while the European Union prioritizes the user, often at the expense of stifling innovation. In short, the distinction can be summed up as "freedom to" versus "freedom from" (O'Hara & Hall, 2018). The EU also takes a centralized approach to governance and regulation, as compared to the US' decentralized and fragmented regulatory approach, resulting from the country's focus on state autonomy and ultimately reducing the number of regulatory mechanisms the federal government can use.

Both the European Union and the United States have new administrations and key legislation that will shape priorities over the next several years, with the European Union welcoming a new Commission in 2024, and a new party in the White House in 2025. Moreover, the European Union's Artificial Intelligence Act came into effect in 2024, and its impact will be felt across the artificial intelligence and related technology sectors. Given this evolving landscape and the rapid pace of technological development and the potential for public sector use of the metaverse for the public good, further research into the topic of metaverse governance is welcomed. For example, future studies can extend the findings of this paper onto broader geopolitical contexts for a more holistic overview of various approaches to metaverse governance. It is also relevant for future research in exploring how national governance frameworks shape the experience and agency of users in the metaverse.

6.1 Limitations

It is worth noting some of the limitations of this research, particularly the uncertainty surrounding the risks and benefits of the metaverse and related technologies, such as artificial intelligence. Experts worldwide are divided on the future of the metaverse (Anderson & Rainie, 2022, p. 6). Two main predictions on potential popularity and maturity emerge: one faction foresees a rise in the use of augmented- and mixed-reality technologies, though not to the immersive extent of full-scale metaverse technologies. The other argues that *"these new worlds could dramatically magnify every human trait and tendency – both the bad and the good."* Because of this ambiguity, existing research is limited and the future is unclear.

Another limitation of this research is potential bias, as both experts interviewed have professional experience at liberal institutions. This may color their perspectives on the political and geopolitical aspects of this conversation, as liberals generally tend to favor regulation, while conservatives often favor a laissez-faire and business-driven approach.

Ultimately, our findings are intended to provide preliminary insights, rather than broad generalizations. They provide an insightful lens on how metaverse regulation is addressed differently across the world and would only benefit from additional research in other regulatory contexts, like China, India, or middle-power governments, in the future.

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