



Resolution 2578 (2024)¹

Provisional version

Risks and opportunities of the metaverse

Parliamentary Assembly

1. The metaverse represents a new frontier for digital technology and a step change in the way that people can interact with information, one another and society. Immersive media, such as fully immersive virtual reality and wearable augmented reality, is experienced as an all-surrounding psychologically convincing simulative environment, in which people can interact with one another as embodied avatars, in a compelling blend of digital and physical experience.

2. The Parliamentary Assembly notes that immersive technologies are already being used to great positive effect in multiple sectors including education, healthcare, art, culture, sport, design, engineering, media and communication and, increasingly, in participatory democracy. The persistent, interconnected and inherently social metaverse environments may trigger social and societal benefits, including meeting with like- and unlike-minded communities, without the need for physical travel. Enhanced remote and virtual working and social gatherings offer new opportunities to those currently isolated by their location or lack of mobility, health or financial means.

3. However, the Assembly is concerned that, whilst governance and legislation struggle to keep pace with technological innovation, questions of accountability for person-to-person criminal behaviour in metaverse environments persist, such as harassment, violence, abuse, fraud and theft, and other serious human rights violations. The metaverse environments can also be exploited to fuel hatred and manipulate public opinion, thus biasing democratic processes, or may facilitate Orwellian State control of authoritarian regimes over the opinions and social behaviour of the population. Moreover, without corrective measures, unequal access to the metaverse – because of its costs – may generate new forms of discrimination and increase social gaps.

4. Decision makers should carefully consider, understand and assess threats to democracy, human rights and the rule of law, but also the many opportunities for breakthrough advances which the metaverse triggers, and they should take informed and responsible action to maximise its benefits while avoiding potential misuses which would undermine our societies.

5. Self-regulation might not be enough, and the Assembly stresses the need to address the rights and obligations of private companies providing metaverse services and infrastructure, including approaches to data management, integration of artificial intelligence, enforcement of terms of use and the reporting of criminal behaviour. Corporate entities, including manufacturers of hardware, publishing platforms and developers of content should have clear safeguarding responsibilities and be held accountable when tools and technologies are repeatedly utilised for illegal and abusive activities.

6. At the same time, public authorities must commit to upholding democratic principles and fundamental freedoms, and they should foster a culture of responsibility and accountability in this emerging socio-technical space. Core principles such as equality and non-discrimination, transparency, privacy and safety of all users should be embedded in the design and development of the metaverse architecture and of artificial intelligence (AI) systems operating therein.

1. *Assembly debate* on 4 October 2024 (32nd sitting) (see [Doc. 16031](#), report of the Committee on Culture, Science, Education and Media, rapporteur: Mr Andi-Lucian Cristea). *Text adopted by the Assembly* on 4 October 2024 (32nd sitting).



7. Responsible governance may encourage creativity, innovation and entrepreneurialism, while upholding democracy, human rights and the rule of law within and through metaverse environments. To achieve these results and remain in control of their future, European countries should not confine themselves to the role of regulators, while others create the technologies which will shape our world, and they should spur the innovation processes, driving them in the right direction and ensuring that our societies benefit from technological developments.

8. Learning from the desktop and mobile era of computing, targeted investment and sound incentives can pave the way for alternatives to the formation of large, concentrated monopolies, exclusionary design, corrosive cultures, and unsustainable production practices. In this respect, the legislative and regulatory framework should consider competition and markets, particularly in relation to distributed monopoly interests spanning hardware, software, content production, publishing, data management, research, advertising and user safety markets.

9. Therefore, the Assembly calls on Council of Europe member States to ensure that the legislative and regulatory frameworks applicable to metaverse environments uphold democracy, human rights and the rule of law, responding to law infringements with adequate measures concerning policing, jurisdiction, evidence gathering and deterrent sanctions, and in particular that they:

9.1. counteract harassment, violence, abuse – with particular attention to sexual abuse and child abuse – and manipulative and exploitative conducts, bearing in mind that interpersonal contact in metaverse environments are more psychologically convincing than other screen-based media, and that legislation should properly address this new psychosocial dynamic;

9.2. safeguard freedom of expression and deal with new forms of social and political manipulation, including disinformation, deep fake avatars, radical ideology and propaganda which could find ground in metaverse environments;

9.3. actively promote Recommendation CM/Rec(2018)7 of the Committee of Ministers to member States on Guidelines to respect, protect and fulfil the rights of the child in the digital environment, among individuals, public authorities and business enterprises and take specific measures regarding its implementation in order to enable all children to fully exercise their human rights and fundamental freedoms in the context of the metaverse;

9.4. guarantee users' rights to cognitive liberty and mental privacy and all rights enshrined by the Council of Europe modernised Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data and its amending Protocol (ETS No. 108 and CETS No. 223, "Convention 108+") including:

9.4.1. the prohibition, for corporate or State entities, to collect, analyse, exploit or commodify user data generated in the metaverse environments without users' free and explicit consent;

9.4.2. the prohibition to use subconsciously contributed biometric information – such as involuntarily eye movements and pupil dilation – for behavioural, social or political profiling;

9.4.3. the processing of sensitive data – such as genetic or biometric data, but also those relating to racial or ethnic origin, political opinions, beliefs, health or sexual life, among others – only when this is necessary to pursue a stated legitimate aim, and with appropriate safeguards established by law;

9.4.4. reinforced information security to protect data gathered;

9.5. set up transparency requirements in the operation of AI systems requirements, according to Council of Europe standards.

10. The Assembly considers that Council of Europe member States should support inclusive access to, and informed use of the metaverse, and encourage democratic engagement therein. Thus, it calls on Council of Europe member States to:

10.1. prioritise, at different levels of governments, policy action aimed at broadening access to emerging technologies and consider targeted investments to narrow the digital divide by removing existing and potential barriers, including costs;

10.2. encourage metaverse literacy of elected representatives, the judiciary, law-enforcement agencies and public officials in healthcare, education, culture and other relevant policy areas, to increase professional understanding of virtual and augmented reality tools and their affordances;

10.3. undertake public literacy campaigns, also via public service media and their digital platforms, to support the population in equitably accessing and leveraging the opportunities of the metaverse, whilst developing an understanding of the risks, especially for children;

10.4. consider hosting governmental and civil society citizenship initiatives in metaverse environments, to model best practices that prioritise inclusion and encourage participation and engagement of a wide range of the public, in particular youth groups, across diverse communities, actively enabling the contribution of minority groups.

11. The Assembly is convinced that international co-operation among governments, as well as their collaboration with the private sector and researchers are essential to address the complexities of metaverse technology, promote sound competition and incentivise the development of safe creative immersive ecosystems and ethical metaverse standards. Therefore, the Assembly urges member States to strengthen dialogue and collaboration with business and industry stakeholders, and civil society organisations, with an aim to:

11.1. prevent monopolies and anti-competitive practices; consider limitations to the scale of influence that a single State or a corporate entity may be entitled to accrue across metaverse ecosystems, and create opportunities for new entrants across the metaverse technology stack;

11.2. agree on codes of ethics for publicly funded metaverse projects, to ensure that these projects uphold human rights and democratic values;

11.3. develop partnerships with actual and potential metaverse providers, to support research and strategic investment in immersive platforms that model positive social and community structures, mirroring public sector approaches to town planning;

11.4. put in place sound content regulation akin to the broadcast and cinema sectors, and apply learnings from social media regulation to avoid that mechanisms are set up in metaverse environments by which State or private sector parties could manipulate user behaviour;

11.5. build sustainability into the supply chain and ecosystems of immersive technology, promoting and monitoring compliance with internationally agreed climate targets and the United Nations Sustainable Development Goals; consider in this respect, for example, codes of practice or regulations on life cycle assessment of immersive technologies, which should encourage responsible practices (such as repair and reuse of devices, recycling of gold and other rare earth minerals; minimising transportation, etc.) and enable them by creating adequate facilities;

11.6. adopt a participatory and dynamic approach to policy making and legislation, subjecting policies to regular reviews to maintain comprehensive up-to-date protection for the population, as technologies continue to evolve;

11.7. strengthen international co-operation agreements, in particular to enhance cross-jurisdictional prevention and responses to criminal activities in metaverse environments, and encourage mutual learning and exchanges of best practice at international level, making best use of the potential of the Council of Europe in this respect;

11.8. sign and ratify the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy, and the Rule of Law (CETS No. 225, "the Vilnius Convention"), which was open for signature on 5 September 2024, and opt to fully apply its provisions to the activities of private actors, and to put in place limitations, or even bans, on certain uses of AI deemed incompatible with human rights, especially in relation to health and the environment.

12. For its part, the Assembly will continue following developments in this field and resolves to strengthen its partnership with the European Parliamentary Technology Assessment (EPTA) Network, with a view to providing its contribution to policy makers in shaping technology development and ensuring democratic governance and respect for human rights and fundamental freedoms.