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Economic Opportunities in the Metaverse: A Policy Approach

*Harnessing web3 technologies to deliver interoperability
and portability for the future*

Introduction

Just over a year ago, we shared our vision for the metaverse: a new era of the internet built on immersive and integrated experiences. Since then, we have shared some additional early thoughts around the benefits the metaverse will bring, the importance of building it in a way that's open and interoperable, and the vital need for collaboration between the private sector, lawmakers, civil society, academia and diverse groups of people who will experience it. We also worked with other organizations equally passionate about the potential of the metaverse to establish the [Metaverse Standards Forum](#) — an industry-wide effort to ensure the metaverse is built on a foundation of open standards.

Reflecting on all the ways our lives have been transformed over the last three decades by the digital revolution, it is clear that the metaverse presents a promising new arena of economic opportunity.

Early estimates indicate that the economic contribution of the global metaverse could be valued at [more than \\$3 trillion by 2031](#). Already, places like [Dubai](#), [Seoul](#) and [Taiwan](#) are advancing with plans to take advantage of the metaverse. And there are new opportunities emerging in a wide range of industries, from education, training, remote work and more; as well as opportunities for creators to make new forms of art and entertainment, build more direct and profitable relationships with their audiences and engage with more people in ways beyond the limits of today's technology.

Importantly, the two key components for making the metaverse an economic success — interoperability and portability — will be powered by the further adoption of web3 technologies. Understandably, policymakers are giving considerable attention to the application of blockchain technology in financial services, whether in the form of stablecoins, cryptocurrencies or crypto exchanges, but it is important to recognize that blockchain also has extensive non-financial applications that can be foundational to the metaverse economy. For example, non-financial blockchain-based assets, like [non-fungible tokens \(NFTs\)](#), are well positioned to establish ownership of digital objects in the metaverse and enable people to navigate experiences and worlds in a way that platforms do not currently allow.

In order to responsibly build the metaverse economy and ensure its innovations benefit as many people, businesses and creators as possible, it's important for policymakers to set fair rules for web3 technologies that keep people safe and promote innovation. At their core, these rules should:

1. Adopt a **technology-neutral approach** that focuses on “same risks, same rules”;
2. Recognize **that decentralized systems have a role to play** in unlocking new economic opportunities by fostering innovation, competition, interoperability and portability of ownership and identity;
3. Embrace greater **collaboration between the public sector and industry** as a critical foundation for any future regulatory frameworks.

These three principles are explored in more detail below. We look forward to continuing to work with industry partners and policymakers on building the metaverse, together.

1. Adopt a technology-neutral approach that focuses on “same risks, same rules”

Web3 technologies like blockchain and digital assets are already supporting numerous use cases, from making supply chains more efficient to creating entirely new forms of digital goods. We believe a tech-neutral approach to web3 regulation means:

Not all digital assets are the same, nor should they be treated the same.

At this still-early stage of innovation, rather than adopting a one-size-fits-all approach to regulation, policymakers should take into account web3 technologies’ varying use cases. New risks should be assessed, but new rules may not be needed when existing ones may be sufficient. Getting the regulatory balance right will mean taking the time to assess the market function of the particular activities involved and determining what new regulations are needed to keep people safe while promoting innovation.

For example, the fact that some of the more prominent early blockchain projects focused on financial use cases does not mean all blockchain-powered products inherently pose the same risks as financial ones. Financial regulations should only be applied to financial use cases, like payments and securities offerings, and non-financial digital assets should be treated in a similar way to other non-financial goods and services.

At present, a perspective informed principally by skepticism of cryptocurrencies hangs over blockchain’s non-financial applications and risks stymying innovation in the sector.

Regulators should start from the premise that when a web3 activity resembles an activity in the physical world, it should be treated in a similar way.

Where blockchain-based assets have analogues in the physical world, blockchain regulation should follow suit. For example, a creator who makes NFT-based digital art should be treated by regulators as analogous to an artist who makes physical art. Similarly, many non-financial blockchain-based assets are akin to the digital equivalents of concert tickets, trading cards or lithographic copies of paintings.

To the extent regulations apply at all, there should be a like-for-like approach to blockchain tech’s physical equivalents. Just as is the case in the physical art and collectible markets in many jurisdictions, regulations could be combined with more novel mitigations, which may be advisable when digital assets exceed certain value thresholds.

Moreover, the types of consumer protections that exist in the physical goods space may not be well-suited to blockchain-based digital goods, so new methods, including the use of blockchain analytics to help mitigate fraud, scams and other consumer harms, may be needed once these markets have developed and rules can be appropriately tailored.

New technologies may satisfy current standards.

In addition to informing how policymakers should approach regulation, a tech-neutral stance could also create opportunities to improve access to services and risk management. Where a decentralized and/or blockchain-based solution can meet the standard for demonstrating eligibility for a service (e.g. digital identity verification for age that protects personal information) or for establishing an organization for a common enterprise (e.g., a decentralized autonomous organization or token-governed entity), it should face similar regulatory treatment to legacy methods and models.

It is frequently noted that even people who lack a physical government ID often own a basic smartphone. A digital ID can open up new economic opportunities for people by allowing them to demonstrate eligibility for services in a privacy-preserving manner by indicating to third parties that the holder has undergone identity verification without sharing their actual personal information. We hope governments will take advantage of this type of implementation of digital ID and consider ways to allow for its development and acceptance, while assuring citizens that their privacy will be safeguarded.

Similarly, digital assets could serve as the basis for new categories of personal property and digital goods, thus creating new, user-friendly and efficient ways to register ownership of goods. We believe that this could be an important building-block of the metaverse ecosystem by giving people additional confidence in their rights as owners of blockchain-based tokens. While this will require some time to assess, we welcome governments exploring how to provide greater legal clarity.

How Meta is applying this principle to promote economic opportunity.

The monetization tools available to creators on our platforms make use of a range of technologies, including blockchain, and we are continually expanding that set. Since we introduced the ability to [create and sell digital collectibles both on and off Instagram](#), creators are harnessing their presence on our surfaces for their economic benefit. The first creator to create and share their digital collectibles, [@driftershoots](#), saw their collection of 50 digital collectibles sell out in seconds. Other early creators like [@donalleniii](#) and [@vinniehager](#) made collections using Meta Quest Pro and Quest virtual reality tools and also sold out within minutes.

As we look to the metaverse, we are empowering creators in Horizon Worlds, our immersive virtual reality social experience, to build experiences and games, find their communities and build a business. We have also designed [an integrity framework](#) to reward creators for being trustworthy actors. We are testing new features that give creators the tools to sell items across our metaverse offerings, such as [the Avatars Store](#). By being part of the program, they gain access to the ability to sell in-world objects and goods, bonuses and support from Meta partner managers.

Broadly, we believe the continued development of a thriving creator economy depends on regulatory treatment that does not discriminate based on the technology at use and does not impose undue requirements on individual creators who choose to register ownership of digital goods using blockchain because of the portability and interoperability it can provide.

2. Recognize that decentralized systems can play a role in unlocking new economic opportunities by fostering innovation, competition, interoperability and portability of ownership and identity

The promise and excitement of web3 is driven, to no small extent, by the potential benefits of decentralized computing systems. By driving interoperability and portability across service providers, decentralization has the potential to bring people greater choice, freedom and economic opportunity.

The internet itself was born as a decentralized communications network. As it grew, points of entry like landing pages, indexes and marketplaces made it easier for a wider audience to navigate an increasingly wider set of options. These new centers of gravity did not change the fundamental nature of the internet, but they did make it more accessible to more people, which in turn led to unimaginable innovation and new economic use cases. Web3 builds on this precedent, using blockchain technology to decentralize use cases beyond simple communications — such as ownership verification, identity validation, exchange of value and more — to new, as yet unconceived ideas. To enable continued innovation in this space, regulators and policymakers should:

Recognize that decentralization exists on a spectrum.

Web3 applications can consist of individuals acting on a network, but companies still have an important role to play in preserving the integrity of platforms, protecting users, safeguarding against illicit activity and ensuring accountability.

While decentralization has its benefits, a fully decentralized environment could be so vulnerable as to work against the interests of its participants. Today, much of web3 consists of complicated layers of technology that are not intuitive for most people. Companies can build familiar and simple user experiences, while providing necessary centralized functions like fraud detection, content moderation and customer service.

Where, in their centralized experiences, companies have proactively developed robust and tailored technological solutions for technically complex functions (e.g., detecting intellectual property infringement or other violating content), these advanced tools can be adapted and applied to companies' web3 experiences. Equally, hybrid models leveraging both centralized and decentralized infrastructure could foster better resilience and cybersecurity, thus enabling a thriving ecosystem.

Adopt a balanced approach towards risks that recognizes the potential economic and social benefits of web3 technologies.

Industry players and other participants in the web3 space are working to manage some of the novel issues created by decentralization, and governments should support such efforts as they come to market.

An ever-evolving ecosystem — where there is no single point of accountability for the processing of blockchain data — requires a pragmatic, proportional, case-by-case approach in line with user expectations. As regulators consider whether new regulations are needed, we would encourage them to evaluate how to make use of existing concepts and exemptions in light of the specific nature of a given blockchain use case. Moreover, they should focus on principles rather than imposing rules too soon.

Realizing the potential of decentralized technologies requires reimagining concepts like: personal identity, economic ownership, organizational governance, data ownership, categorization of blockchain data vs. pseudonymization, the right to deletion vs. immutability and how technology platforms interact.

Blockchain-based assets are one of the core tools that will make interoperability and portability possible in the metaverse. Digital art or collectibles are simply the most popular current manifestation of the concept. NFTs and tokenized assets can be also used, e.g., as a record of property ownership or other official records. For example, the State of California has embraced blockchain applications for vital records, and the United Kingdom permits it as an appropriate means to service notice of the commencement of legal proceedings.

In addition to enabling the portability of assets, blockchain technology has the potential to create a verifiable and highly portable digital identity based on or supplementary to government documents. The ability to establish, safeguard and control one's own personal identity in a digital format will be critical in the metaverse and could also help bring more people into the financial system.

How Meta is applying this principle to promote economic opportunity.

As we build for economic opportunities in the metaverse, we know that creators, communities and consumers will want to move beyond the siloed way in which apps operate today. Right now, we are working to expand experiences on our existing platforms and apps beyond two-dimensional screens so more people can become familiar with experiences in the metaverse, particularly as augmented reality (AR) and virtual reality (VR) hardware becomes more available. We're also helping people participate in the metaverse economy through non-VR devices that they may already own.

In the future, we anticipate greater demand for people to be able to carry assets — such as digital tools, digital identity and digital belongings — from one metaverse experience to another. In such a context, interoperability would enhance the functionality and inherent value of these assets and the services where they can be used. In turn, creators could establish a more direct relationship with their community and keep that relationship across platforms.

People could experience all of the things that creators produce across different platforms and apps, rather than being tethered to a single one. Creators and consumers would have direct control over their digital assets and would not risk losing access if a platform changed their policies or ceased to exist. This is why we're exploring web3 technologies in our current family of apps, even if we do not yet know the full extent of the role blockchain-based assets will play in the metaverse.

3. Embrace greater collaboration between the public sector and industry as a critical foundation for any future frameworks

There are many ways in which web3 technologies can meet or even improve upon existing standards and models. Regulators should encourage a forward-looking, collaborative relationship with industry participants. Where industry participants come together to collaborate in open forums on standards, we would encourage governments to consider ways to support and embrace such standards.

Governments should establish mechanisms to promote dialogue with industry stakeholders, to ensure a shared understanding of web3 technologies, including the role Central Bank Digital Currencies might have in the metaverse.

The borderless nature of blockchain technology complicates the challenge of navigating different regulatory frameworks and localization requirements. Governments have a critical role to play in aligning on a harmonized approach that considers the realities of blockchain technology and its applications, understands the applicable roles of various parties on the blockchain, and ensures responsible regulatory requirements are both effective and relevant.

We hope that more governments will consider establishing working groups at the national and multilateral level to work with and learn about new technologies from industry. There are already good examples of digital asset hubs in [Switzerland](#) and [Singapore](#), where policymakers and regulators have created centralized channels to hear from digital asset businesses and work with stakeholders on developing sound, pro-growth policies. In the United States, financial services regulators have created innovation offices as entry points for innovators, and we hope that these can be further empowered to drive approval of new technology use cases and in the formulation of new rules. We believe that establishing robust channels between innovators and government agencies is essential to fostering innovation and creating a safe and transparent ecosystem for digital assets and the digital economy.

Since the metaverse will transcend national borders, it needs harmonized cross-jurisdictional public and private standards, norms and rules.

Like the internet, the metaverse will not be limited to use by people, small businesses and corporations from within defined, geographic parameters. The siloed nature of bordered approaches to regulation will impede interoperability and portability in the metaverse. Onerous requirements for local storage of data are particularly challenging for blockchain technology and its cross-border applications. Regulations should adjust for the borderless reality of blockchain technology, while enabling regulators to exercise their jurisdictional reach and allowing data to continue to flow. While it will be difficult to enforce the rights of certain data subjects when the blockchain is distributed and immutable, these are the very features that safeguard and validate the underlying data.

Sandboxes with clear entry and exit parameters could play a helpful policy role, particularly in areas that depend heavily on public-private sector cooperation, like proof of identity.

Fostering innovation and creating a safe and transparent ecosystem for digital assets and the digital economy requires establishing a robust channel between innovators and government agencies. This could take the form of regulatory sandboxes with clear exit criteria that allow industry participants to offer products to limited numbers of consumers in a more controlled environment.

As noted, proof of identity is an area ripe for this sort of collaboration between industry and government. In particular, we would encourage governments to consult with industry to establish standards for proof of identity. This could unlock payment and commerce experiences on a wide scale and bring greater numbers of people into the digital economy. We also recognize that it could carry new risks and believe regulatory sandboxes could play an important role in allaying these risks.

How Meta is applying this principle to promote economic opportunity.

The metaverse will only be successful if it is open, inclusive and built by a diverse group of people, businesses and creators. Achieving this goal requires standards, both at the foundational protocol level and for interoperable digital goods and content. This is why Meta co-founded the [Metaverse Standards Forum](#), which has grown from 35 founding members in June 2022 to include over 1,800 organizations, all invested in building a metaverse that works for everyone.

Similarly, we are partnering with more than 100 organizations under the auspices of the [World Economic Forum](#) to define the parameters of an economically viable, interoperable, safe and inclusive metaverse.

We hope that governments will take note of these and other initiatives and engage with them when appropriate to identify opportunities for public and private sector collaboration.