



Metaverse Standards Forum

For Prelims: Metaverse, Augmented Reality, Virtual Reality

For Mains: Metaverse Standards Forum, Need of Interoperability in Metaverse

Why in News?

Recently, various brands gathered for the founding of the [Metaverse Standards Forum for the development of interoperability standards](#) to drive the growth of the metaverse.

What is Metaverse?

- The metaverse is not a new idea, science fiction writer Neal Stephenson coined the term in 1992, and the **concept is commonplace among video game companies.**
- Metaverse is the **next version of the Internet** focused on social connection.
 - It can be defined as a simulated digital environment that uses [Augmented Reality \(AR\)](#), [Virtual Reality \(VR\)](#), and [blockchain](#), along with concepts from social media, to create spaces for rich user interaction mimicking the real world.
- It can be imagined as a 3D virtual world, with ever-evolving aspects which are collectively shared by its inhabitants - a virtual world with real-time events and an online infrastructure.
- In theory, it encapsulates everything that's happening into the real world and will bring real-time events and updates going forward. The user exists in a virtual world without borders.

What is the Metaverse Standards Forum?

- **About:**
 - The concept of the metaverse **has yet to be fully established, but interest in virtual and augmented realities fast-tracks the growth of various metaverse projects.**
 - In light of the growing anticipation for the metaverse, **Metaverse Standards Forum** was established **"to foster the development of open standards for the metaverse"**.
 - **"Open Standards"** are standards made available to the general public and are developed (or approved) and maintained via a collaborative and consensus driven process. "Open Standards" facilitate interoperability and data exchange among different products or services and are intended for widespread adoption.
 - The internet is **interoperable through the power of HTML**, the **metaverse also requires a similar interface for users** to navigate between virtual worlds freely.
- **Objectives:**
 - It aims to **analyze the interoperability necessary** for running the metaverse.
 - Interoperability is the **driving force for the growth and adoption of the open metaverse.**
 - It will focus on pragmatic, action-based projects such as implementation prototyping,

- hackathons, plugfests, and open-source tooling to **accelerate the testing and adoption of metaverse standards.**
- It will also develop **consistent language and deployment guidelines to expand the online universe.**

What is the Need of Interoperability of Metaverse?

- Interoperability **equips the metaverse with support for the different features** and activities across projects.
- This continuity is **essential in generating a fluid user experience from one metaverse project to another.**
- With open interoperability standards and guidelines to follow, **companies can launch fully interoperable projects, allowing them to integrate their programming interfaces with other projects.**
- There has to be a set of commonly agreed upon protocols to make the metaverse work, just like how Transfer Control Protocol/Internet Protocol (TCP/IP) enabled the Internet to go live four decades ago.
 - Such protocols help us in connecting to a WiFi network from home and office without changing our devices.
- They are a result of open standards. The potential of the metaverse **will be best realised only if it is built on open standards.**
- Proponents of the metaverse call it the future of the Internet with 3D at its core. And to fully simulate the digital world, **3D interoperability has to be met.**

What can be India's Role in Building Metaverse?

- **India-Primed for the Metaverse:**
 - Since 2015, India has **risen almost 40 places in the [Global Innovation Index](#), now ranking 46th in the world.**
 - India has **a thriving culture of [entrepreneurship](#)**, which has recently experienced significant growth.
 - This environment is bolstered by a set of favourable consumer trends, including rising disposable income, increasing smartphone adoption and affordable mobile data.
- **Emerging Digital Infrastructure:**
 - The last decade has seen the **[creation of India Stack](#)**, which is a combination of technology projects, including the national digital identification and payments infrastructure, that together heralded a new era of financial inclusion in the country.
 - India's plans **to use blockchain applications for e-governance** included a proposal for a blockchain-backed **[Digital Rupee](#)**, to be issued by the **[Reserve Bank of India](#)** from 2022-23.
 - The government has also announced that it will conduct **spectrum auctions to facilitate rollout of [5G mobile services](#)**, which should accelerate demand for cloud applications - including those for gaming and the metaverse.
- **The Evolving Regulatory Landscape:**
 - While the technical, demographic and policy foundations for the metaverse appear to be present in India, **there remains the operational challenge of building the metaverse.**
 - If India is to take a leading role, **deal flows in the private sector will need to accelerate.**
 - The latest Union Budget levies a 30% tax on income from transfers of Virtual Digital Assets (VDAs), which could include cryptocurrencies and potentially **[Non-Fungible Tokens \(NFTs\)](#)**.
 - While the tax would imply recognition of crypto as an asset that can be regulated, it does not legalise **crypto ownership, which can be done through due legislation.**
 - Beyond crypto, the metaverse **also raises policy questions of how privacy and security should be addressed.**
 - Online risks may be exacerbated in the metaverse, where unwanted contact could become more intrusive and pervasive.

- **Governance mechanisms for virtual worlds would need to be supported with strengthening and scaling efforts** to promote digital literacy, safety and wellbeing so that participants can engage meaningfully in online communities while consciously navigating harmful content and behaviours.

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