Decentraland

Explained

The Metaverse of Digital Content and Communication

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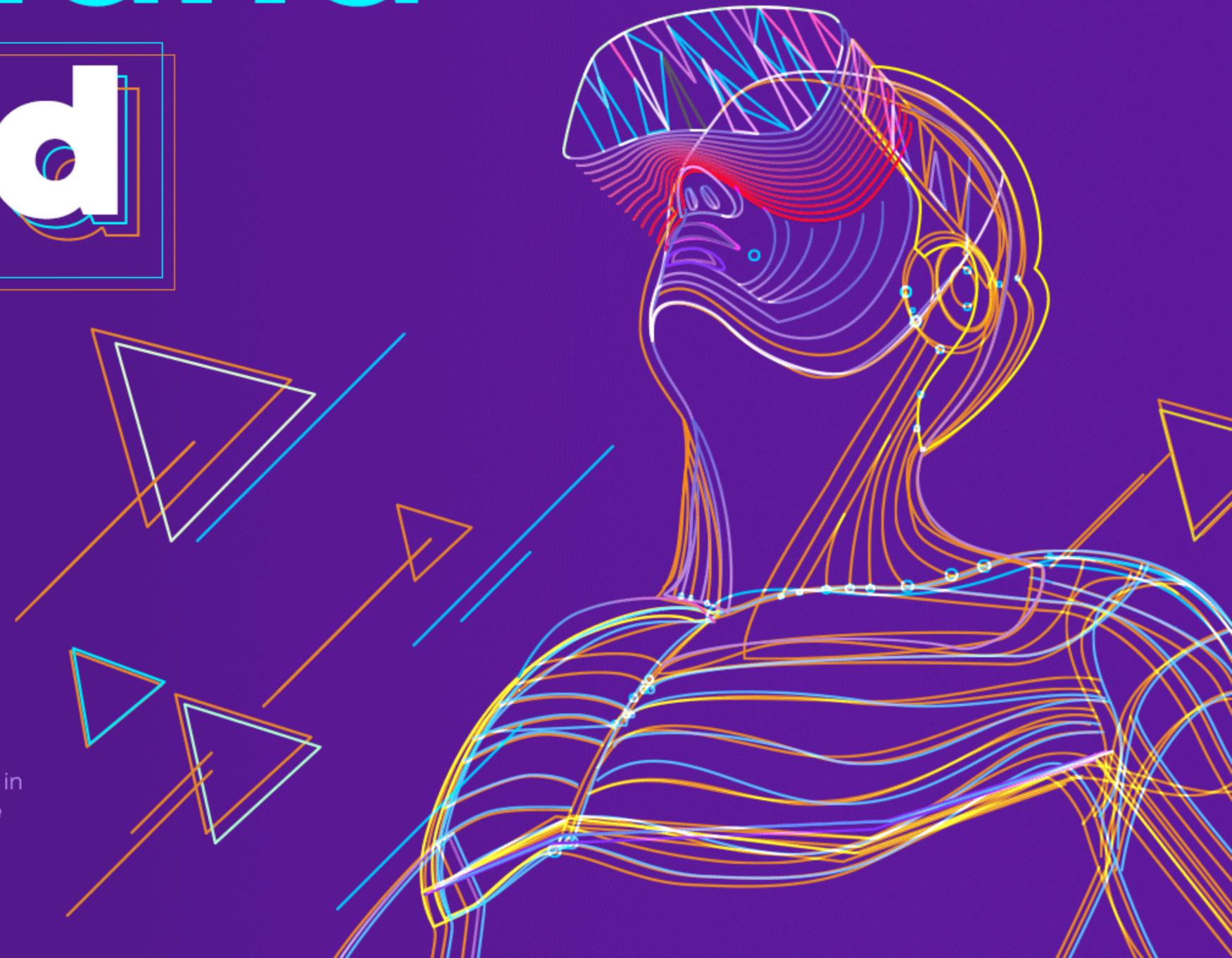
Summary

Decentraland promotes itself as the first largest decentralized virtual reality platform in the world. It is powered by the Ethereum blockchain, which makes it possible for users to create a plethora of artworks, NFTs, dApps, and other digital content. All of these can be bought and sold, and put into the platform, becoming a part of the ever-growing virtual world. Anyone can participate even without investing, and enjoy everything the community has to offer.

However, the main attraction of Decentraland, working alongside the others by giving the opportunity to create and connect, is its **land ownership system.** Real estate going digital is not something entirely new, but putting it into a blockchain and, in a way, a habitable virtual world is. Users who claim ownership of a virtual land on this blockchain-based ledger of parcels become its permanent owners and can do with it as they please. The goal of the project is to allow a space that can flourish at the hands of users, creators and land owners.

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Today's social media gathers information and manages all the rules and content users consume. Decentraland aims to provide a venue for contributions that creators can make and be regulated by none other than the community itself. More **centralized solutions** can work, but obviously, for many who chase blockchain benefits, this is not a viable option. What Decentraland offers are direct payments at low costs between content creators and users for a radical change in e-commerce.

In other words, this land where users have digital freedom is meant to be a portal into a potential future where people can connect, create together, and where the value of virtual content can match or at some point maybe even outperform that of real-world creations and land. It is currently undergoing an important phase, but before we go into the details, let us take a look at how it came to be.

Loading in progress...

Founded by Esteban Ordano, alongside Ariel Meilich, at first, Decentraland began as **just an infinite 2D grid with digital real estate parcels.** This proof of concept is known as the platform's Stone Age. In 2016, the Bronze Age was being developed – a 3D rendering of the virtual land. A modified Bitcoin blockchain was being used to associate parcels with hash references. The world could be explored by way of a Distributed Hash Table (DHT) or BitTorrent could be used to download the files instead.

Next – the Iron Age, consisting of the social and monetization layer. Land ownership and app development as well as their distribution occurs here. It is where we find the peer-to-peer communication methods, and the scripting language on which assets are built, including the low-fee cryptocurrency payment system. Now, finite, adjacent land makes traversal through the world easier, allowing the discovery of **districts** devoted to various topics and themes.

Pixels – floating; ambitions – evolving

Decentraland is going for an in-world economy model. Developers can **build** not only applications, but games, dynamic 3D scenes, and even gambling systems as well. Using the **Decentraland scripting language,** it is possible to code, but also create objects, load textured and handle physics commands. Encoding is not out of the question either – at this time, that can be done for various elements like user interactions, sounds, payments, external calls, and others.

In order to emulate real world space, Decentraland has the one-of-a-kind **Genesis City.** Life is bustling on the roads and raving parties are happening on people's lands, including the center of it all – the Genesis Plaza. Neighborhoods are the places where those with common interests visit and where landowners get to show off their content to others. That being the case, high-traffic spaces can also be utilized for advertising on billboards or whole buildings. One can

Trading on margin is high risk.

Pixels – floating; ambitions – evolving

promote their products, services or events through this utilization. At the same time, it can also be a ground for brands where they can position their own content and engage with the audience through shared experiences.

Additionally, users can publish and distribute digital assets that are collectible. Those are issued on the blockchain by creators and work in a similar fashion to online purchases or auctions on forums. Due to the secure scripting system backing them, trading already acquired assets is a possibility as well. All the more so when groups gather to message each other, **voice chat and play games inside the**

blockchain, be that online or offline.

In contrast to traditional games, every player owns and controls the game assets, which can be interoperable across games. Player history is stored publicly, allowing developers to personalize the game content and giving ownership of data to the players themselves. As a result, this can extend to the creation of educational material, therapy and virtual tourism, among others. It is all up to each user and community's imagination – there are no set boundaries when it comes to creative ideas in Decentraland.

Trading on margin is high risk.

![Eightcap logo]

MANA – uniting the LANDs

The world of Decentraland is divided into 100m⬚ (~1078 ft⬚) parcels, each one – a non-fungible digital asset called LAND. **To purchase LAND, owners need MANA – the ERC-20** token through which transactions are executed. Ethereum is chosen as the cost-efficient and performance-effective solution for maintaining a secure P2P network. User transactions use Ethereum's smart contract system, which is safe and fast, to directly contribute to the economy and ecosystem. the creation of educational

material, therapy and virtual tourism, among others. It is all up to each user and community's imagination – there are no set boundaries when it comes to creative ideas in Decentraland.

The blockchain-based virtual world's token is a deflationary one – it does not have unlimited supply and its price rises with the reducing of tokens available for purchase. The initial coin offering, known as the Terraform event, took place in August 2017. Its goal was to sell $25 million's worth

MANA - uniting the LANDs

of land. Decentraland **raised $24 million in just 35 seconds.** Subsequently, two burns of the land auctions followed. The **first** resulted in 161,483,050 MANA ($10-15 million at the time) being burned, and the **second** – 109,500,000 ($6-7 million at the time). With those, 34,358 and 9,311 lands respectively had been purchased.

At the time of its inception, MANA had a total supply of 2,805,886,393. That was later reduced by 300 million by way of burning – transfers to **a "dead" wallet** where the private key has been thrown away – for the sake of **removing any**

potential MANA concentration in one place. This is one of the measures taken in light of the voting system that the platform utilizes so that decentralization is properly consolidated. Coupled with that, there is the forever decreasing supply where initially, the whitepaper of Decentraland proposed an annual inflation of 8%. This was later overturned by a **community vote** in favor of a change to a 1% burn rate on all LAND sales in the marketplace.

MANA - uniting the LANDs

Since Facebook's announcement that it would rebrand as Meta in late October 2021, **MANA spiked 400% in price**, reaching the top 30 cryptocurrencies. This is supposedly due to the fact that both Meta and Decentraland are on their path to being a metaverse in their own way, enabling the purchase and sale of virtual properties. Ever since, MANA has been fluctuating between the top 20 and top 30 cryptocurrencies, **selling at a price of $3.92 per token and a market cap of $7,138,141,068.**

Decentralizing a virtual world

The Decentraland protocol is **built on three layers – consensus, land content, and real-time.** They are linked to each other in a way that enables the full process of purchase, verification through consensus, content download and its distribution in real time. Two more layers – the Payment Channel Infrastructure and the Identity System, help keep the platform's economy in an ever-growing state.

On the Consensus layer, Ethereum smart contracts operate at full speed, maintaining a ledger of ownership for LAND. Unique x and y coordinates differentiate each LAND. Upon purchase, MANA is burnt to create a new entry in the registry. As a prerequisite, lands need to be adjacent to non-empty parcels to be purchased, though it is not a requirement for it to be a single parcel, as they can be combined in blocks **(called estates)** as well.

Storing all the content – assets needed to render the

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world – for distribution is the Content Distribution layer. This is also where the scripting of content takes place and establishes a connection to the server required for user-to-user interactions. Content file references hidden in smart contracts are retrieved from them through magnet links on the BitTorrent and Kademlia DHT networks, though Inter-Planetary File Systems (IPFS) are also an option. In order to avoid having the same actors that benefit from the system run it, content is distributed and

strong censorship-resistance is achieved. In other words, no central authority can change the rules. Using **Filecoin-like protocols** can cover some of the costs like P2P seeding that is currently done out of goodwill and without compensation by the community.

The Real-Time layer is the communication layer where P2P connections are established via servers hosted by landowners or third parties. Centralization is out of the question, so relying on these options is the best way to
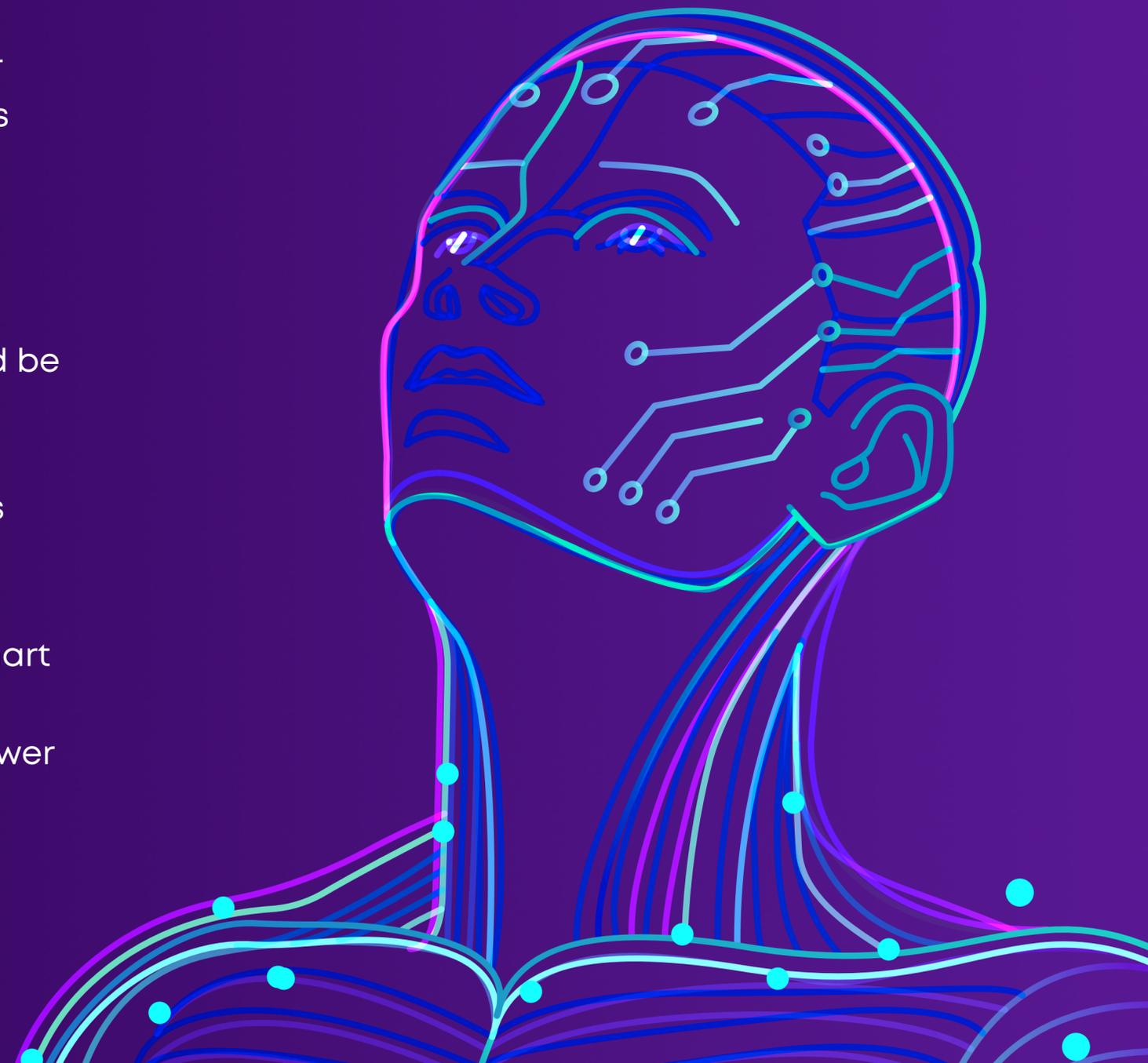
Decentralizing a virtual world

keep the system decentralized. Maintenance of servers is done through micropayments to cover operating costs for larger groups of users. Existing P2P solutions like Federated VoIP or **WebRTC** are fit for the protocols required to keep this layer running.

Payments are required for all in-world purchases as well as to serve as an incentive for quality of service of content and P2P servers. Proceeds of selling MANA tokens are used to subsidize services that can

provide developers with no barrier for entry. On the other hand, **identification** happens through linking public keys and signatures with human-readable names converted to ERC-721 tokens (even more secure than ERC-20) as would be the case for any other NFT.

Finally, full decentralization is achieved through a **DAO – a Decentralized Autonomous Organization,** based on a smart contract system. By handing over the decision-making power to the community, everyone

Trading on margin is high risk.

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becomes more responsible for how the ecosystem functions and how that affects their investments.

In Decentraland, DAO is the governance that allows community members to **cast their votes via the Agora platform.** The Security Advisory Board (SAB) are the safeguards that ensure that **Aragon,** the software that powers the DAO, is sailing smoothly. All five of the SAB members need to reach a consensus in order to execute an **upgrade to a smart contract that requires switch action to fix a vulnerability.** If needed, SAB members can also install new apps and add or remove permissions to already existing DAO applications.

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Colorful events,
a rich marketplace

At the very end, we have the most fun part – all the digital content that can actually be accessed on Decentraland. Without these, it would not be possible to customize any LAND to such a degree. But first things first – as soon as you open the Decentraland web app, you will be prompted to create **your own avatar.** There are numerous options when it comes to body and skin type, face, hair, clothing and accessories, and

more. You can even randomize it to be sure it's the most unique look you get.

Now what you wear is something that can always be changed, but to get a wardrobe of options, you have to be ready to spend some good-ol' MANA. In fact, **custom Wearables** are one of the requests from the community that have made their way to the virtual world. **Whatever you want to**

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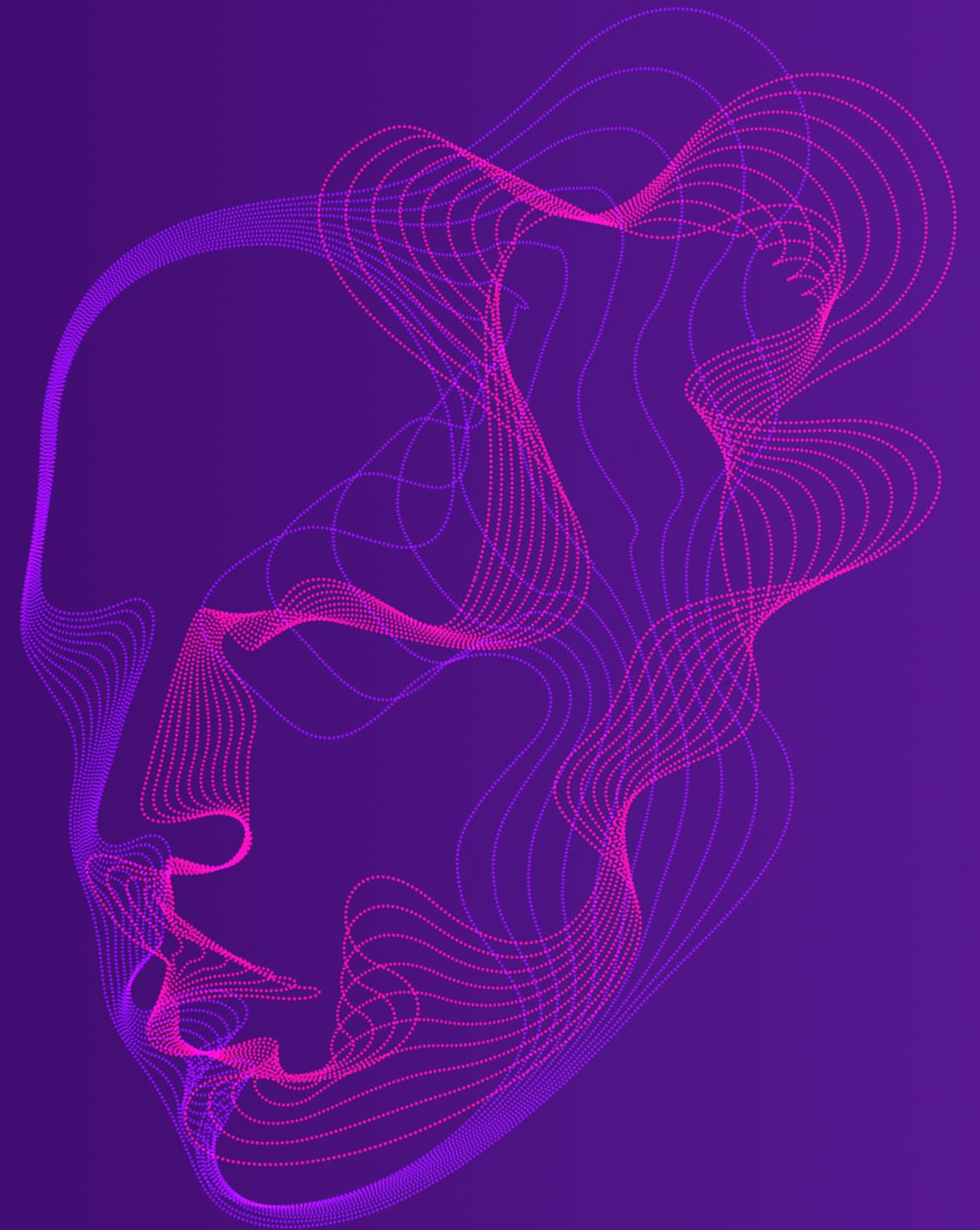
wear – you can. A shirt with your favorite film-inspired wallpaper as the design, an oni mask, a plushie costume, shoes with wings, a hoodie that has planets floating around it, devillish horns, Super Saiyan golden hair, a head in the form of a pot? Anything goes. If you want to even become an illuminati-like pyramid or a plasma-ball, you can.

However, the only thing is that it has to first be created as a non-fungible token that will be associated with its owner. And of course, a Metamask account and a wallet need to be linked to the server for transactions to happen. Once that is done, the purchase and transfer of wearables can happen from the marketplace. **Fresh, new NFTs** come into being as you are reading this, so you can pick yourself a LAND, some clothing, and when the time is ripe, you feel groovy or just want to get into the social experience even more, you go to an event.
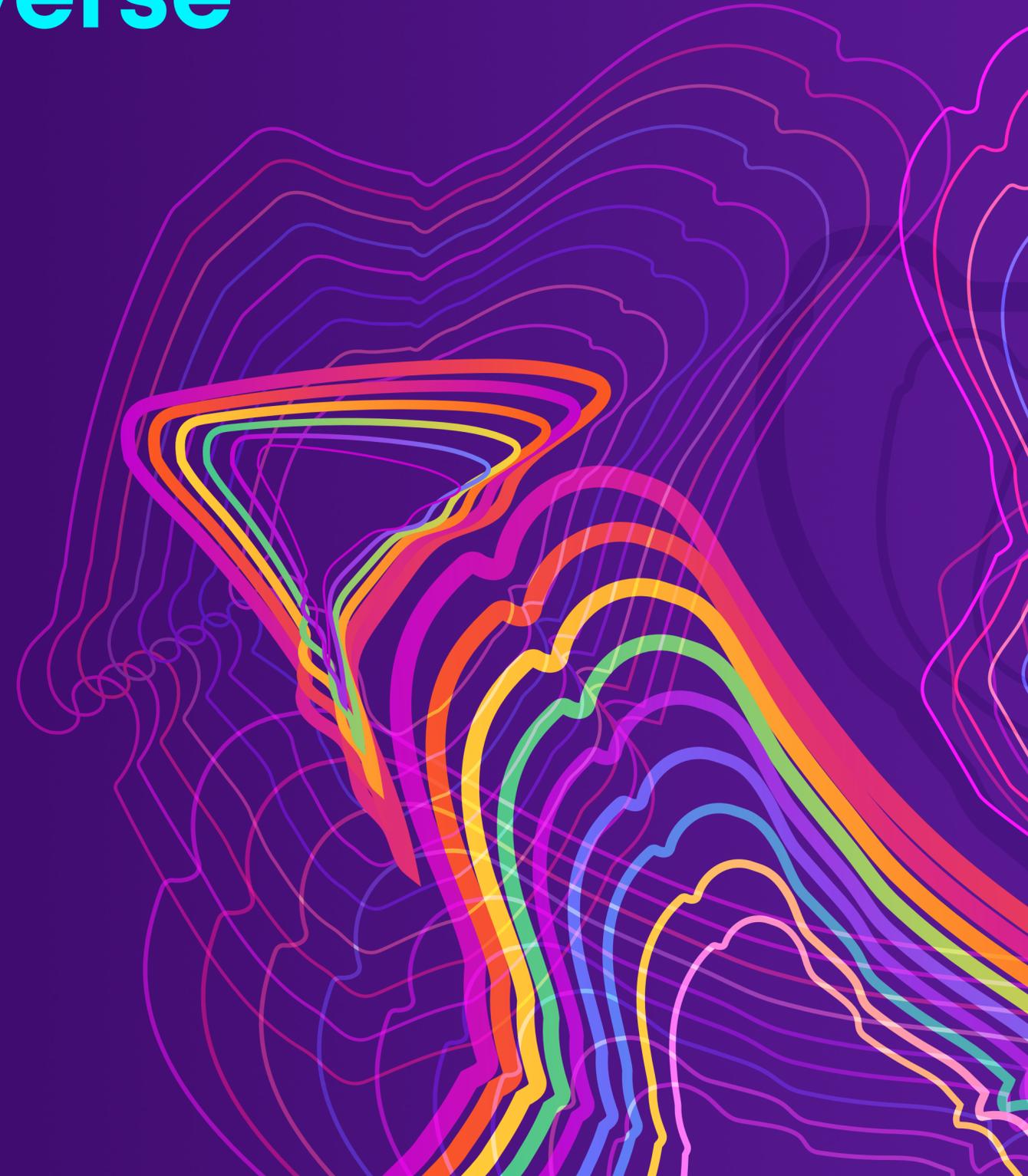
Colorful events, a rich marketplace

On Decentraland, there are so many events that there is a **calendar. From casinos sporting "Japanese feng shui", to updated versions of the Genesis Plaza, to mini-games that gather people who enjoy vikings, to tributes to famous movies, and even amusement parks as well as online soccer tournaments where music concerts take place through a live stream in-game.**

A future in the VR metaverse

Although true virtual reality is yet to be integrated by Decentraland due to constraints such as running everything through the users' browser, it's world is already brimming with energy and potential. As more and more participants enter it, it will no doubt be a challenge to create content filtering systems and enforce decentralized content distribution as well as ensure that the scripting is secure enough for clients to hold private keys and authorize micropayments frequently. That being the case, Decentraland is already shaping itself as the Metaverse that can be the place for everyone to connect with anyone from anywhere and the place for digital content to be created and distributed without limits.

Now you are all caught up.

Happy Trading!

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