



WEB3 UNPACKED

BWA Monthly Newsletter

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EDUCATE

Through research to keep pace with evolving technology

COLLABORATE

To encourage Web3 and blockchain innovation, and nurture India's talent pool

PROMOTE

Dialogue between key stakeholders

DEEP DIVE

Demystifying Web3 (1/2)

Evolution of the Internet and Road to Web3

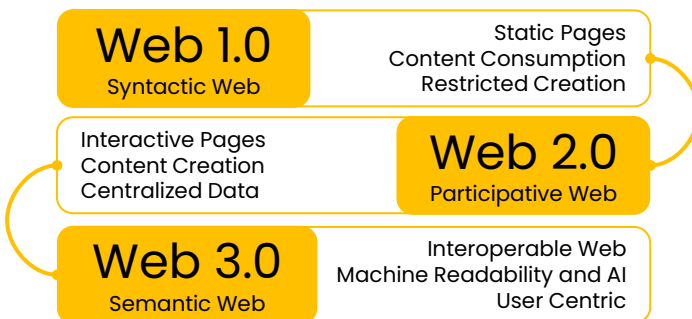
The earliest iteration of the Web was termed **Web 1.0**. Data in this iteration flowed unilaterally from the creator to the user and the user had no way to interact with the presented information. **This static nature defined this age of the internet.** It is, however, important to note that the predecessors of social media platforms like Facebook or Twitter began to gain popularity at the end of this era. Similarly, platforms like GeoCities or Angelfire, offering relatively simple options for non-tech savvy creators to upload comments, and an explosion of forums (such as those based on vBulletin), provided an avenue for like-minded, non-geographically connected individuals to connect, interact, and form relationships.

Web 2.0, largely what internet users see before them today, began with the advent of mega social media platforms like Facebook, which focused on participation, leveraging 'network-effects' and sophisticated data analytics to create value on platforms. Colloquially termed the '**Participative Web**', **Web 2.0, at its core, aimed to make the Web interface more interactive and accessible.** Infrastructure in turn became dominated by cloud & related services with rapid proliferation of platforms like Amazon Web Services (AWS) and WordPress.

Today, Web 2.0 enjoys a wide variety of user-driven platforms with particular emphasis on **social networking, user generated content and cloud computing** helping to differentiate it from what came before. The current iteration, however, is not without its flaws either. The centralization of both content from the creator side, and servers cornered by cloud service platforms has led to **users having little control over their information and data.** Since this information is mostly required by platforms to get access to their services, often, users must give it up.

The fuel, or commodities, of this digital

economy, are data and the 'network effect' – which are currently centralized. Corporations thereafter generate revenue via targeted ads. **This is what drives profits and thus has become crucial to the survival of business entities operating digitally.**



Evolution of the Internet

The Need for Web3

This is where Web3 kicks in. **Presently, online applications integrate the interface, code, and user data into one product.** The interface and code are developed by the application owners and the data is either stored with developers or with third-party databases which constitute repositories. Fundamental to **Web3 is a segregation of these three parts into 3 independent verticals.**

Did you Know ?

Web3 & Web 3.0 are not substitutable terms

While Web 3.0 is the generation of the internet that is supposed to succeed Web 2.0 and focus on machine readability, Web3 is an idea that revolves around leveraging blockchain technology and Digital Ledger Technology (DLT) to create a user-centric experience on the web.

The uniquely distinct governing principle of Web3 is one of decentralization, to give ownership of personal data back to the user through Self-Sovereign Identity (SSI) and eliminate the role of information-hoarding intermediaries altogether.

DEEP DIVE

Demystifying Web3 (2/2)



Segregation of verticals will allow users to manage their data, funds, and identity on their own accord since ownership of data can be unentangled using blockchain technology. Users will be able to individually own and encrypt their information using public key infrastructure for their data, which they can then provide wherever needed while still holding overall control over their information. **The idea is to replace centralization of data with a form of self-sovereign identity and data ownership**, made possible through technologies used in Self-Sovereign Identity (SSI), Decentralized Identity (DIDs) and decentralized storage solutions like Interplanetary File System (IPFS). This tech stack is complemented by **“Smart-Contracts”**, snippets of code that encapsulate business rules which are executed automatically if certain events occur. The combination and interaction of these technologies allows for the deployment of Decentralized Applications, or dApps on Virtual Digital Asset (VDA) protocols.

Since these **dApps will function on Blockchain, they will function autonomously and with minimum human intervention**. Ownership of these applications is often community based and dispersed, with different stakeholders retaining different responsibilities. On the governing front, any changes to the Smart-contracts will also be driven by voting, with the winners of any given vote being rewarded with tokens as well.

This overall system marks a shift to ‘Tokenomics’, a system built around the user to enable decentralization of information and enhance user security and system integrity. Moreover, all the systems will be fundamentally designed to be **Trustless**, to allow participants to interact publicly or privately without a trusted third party, and **Permissionless**, to eliminate the need for a single governing body.

Tokens

Virtual assets which help add value to the network and enable a reward system

Smart Contracts

Programs stored on a blockchain that run when predetermined conditions are met

dApps

Digital applications that run on a blockchain network instead of relying on a single computer

Blockchain

A distributed database that maintains a continuously growing list of ordered records



Building Blocks of Web3

Web3 in India

In India, Web3 has great potential, which is already being recognized by young companies and startups.

- **India constitutes 11% of the global Web3 talent in the form of over 450 Web3 based startups**. These **employ ~75,000 people**, a number which has also been increasing.
- Web3 Startups In India raised **USD 1.3 Billion over the two years ending April 2022**.
- Blockchain based jobs have seen **an increase of 138% since 2018**.
- The industry-level change has the potential to contribute **USD 1.1 trillion to India’s GDP by 2032** according to estimates.

With an **expected surge in demand for Web3 talent by more than 120% over the next 2 years and an internet user-base of over 900 million users by 2025**, the USD 1 trillion opportunity seems like a possibility if the current momentum keeps up. If the increasing demand in investors and users, along with increasing supply in new startups rising together, are anything to go by, the momentum will only grow faster from here.

NEWS ROUND-UP

Key Highlights for the Month



National News

Bharat Web3 Association enters into MoU with Telangana government



MoU signed by Shri Jayesh Ranjan, Principal Secretary, Govt. of Telangana, Industries & Commerce, IT, Electronics & Communication, and Mr. Ashish Singhal, Co-founder and CEO CoinSwitch, & Member, BWA

Feb 22, 2023: Bharat Web3 Association (BWA), entered into a Memorandum of Understanding (MoU) with the Telangana Government's Information Technology Electronics & Communication Department (ITECD). The first-of-its-kind MoU sets the stage for collaborative discussions between the two entities.

Under this partnership, BWA will work closely with the Telangana Government to build a thriving Web3 ecosystem in the state. This will be achieved through organization of events, seminars, and roadshows, as well as by facilitating discussions around Web3 technology.

BWA will facilitate the exploration of potential synergies between its members and the Telangana Government, aimed at utilizing the sandbox environment to its fullest potential. BWA will also mentor and advise selected cohorts in their endeavor to utilize opportunities in Web3.

International News

Global Crypto Rules to Be Based on Coming FSB and IMF Synthesis Paper

Feb 25, 2023: The basis of the coming global crypto rules will be formed on a new synthesis paper, jointly produced by IMF and FSB, announced India as the holder of the G20. The announcement came after three days of meetings in India among the G20 economies in which creating a global regulatory framework for crypto was a priority.

South Korea's Crypto Firms Will Have to Self-Regulate Under New Guidance

Feb 15, 2023: The South Korea's Financial Services Commission has defined security tokens as tokens that are digitized using DLT and instructed firms to regulate themselves.

Dubai Mandates Licensing for Crypto Companies as It Sets Out Regulatory Requirements

Feb 7, 2023: Dubai published an extensive set of rules for crypto companies to address specific activities like issuance, advisory, custody and exchange services.

Indonesia targets launch of its national crypto exchange by June

Feb 3, 2023: Indonesia's national Minister of Trade said the country is reportedly aiming to roll out a national crypto exchange by June this year.

UK pushes ahead with plans to bring crypto under mainstream regulation

Feb 1, 2023: The UK treasury said it plans to "regulate a broad suite of crypto-asset activities, consistent with its approach to traditional finance."

USE CASES

Web3 Practical Applications

Maharashtra Government Issues Diplomas on Blockchain

- The Maharashtra State Board of Skill Development (MSBSD) has issued over 1,00,000 Digital Diplomas, anchored on Polygon, using LegitDoc, a blockchain document verification platform.
- In the past, MSBSD issued diplomas in hard copy, a laborious process that usually required the participation of over 1,000 staff members across its chain of training institutes and departments, taking over a month.
- Students are now able to get their diploma verified within seconds, which would otherwise take over 30 days.
- Uploading the diplomas to the blockchain has other advantages besides just speeding up the process.
- They also receive the highest degree of security, privacy, transparency, direct ownership, and platform portability as a result.

Telangana's Blockchain Solution for Loan Disbursement

- Blockchain-Protection of StreeNidhi Transaction (B-POST) is a Blockchain-based solution developed by Cognitochain (decentralized platform for Microfinance), that promotes financial inclusion and empowers women, particularly the unbanked and underbanked ones.
- Absence of a reliable way of establishing creditworthiness of Self-Help Group Borrowers, had in the past made it difficult for them to access the formal sector for credit.
- B-POST allows tamper proof record-keeping of loan disbursements and repayment for all members of StreeNidhi SHGs on a decentralized blockchain platform, thereby deriving a credit rating.
- Additionally, these ratings can also be shared with other financial institutions, which further improves their access to lending from formal financial institutions.

IN FOCUS

Our Founding Associates



Incorporated in	2018
Founder(s)	Sumit Gupta & Neeraj Khandelwal
Industry	VDA Exchange

CoinDCX is an online exchange aggregator with over 200 listed coins and over 13 million users in India. Established in 2018, CoinDCX has solved numerous problems faced by the Indian crypto community with solutions around crypto investing, crypto trading & crypto literacy and it currently boasts a diverse services portfolio which includes API solutions, DCX Learn, Trading products including the app and a VC arm.



Incorporated in	2011
Founder(s)	Kavin Bharti Mittal
Industry	Gaming

Hike is building the RGU. The Rush Gaming Universe (RGU) is a mobile virtual gaming world where players can use their skills to Play, Battle, Earn & Grow. Players can engage in a new kind of game economy that they own, enabling them to unlock brand new economic opportunities through gaming. The RGU community is currently over 3.9 million gamers battling out over 10 incredibly rich and immersive casual games and is distributing over USD 251 million in winnings annually (in just 22 months since launch). Hike's investors include JumpCrypto, Tribe Capital, Republic, Polygon.



Incorporated in	2017
Founder(s)	Ashish Singhal, Vimal Sagar Tiwari & Govind Soni
Industry	VDA Exchange

CoinSwitch is India's most used crypto-app with over 18 million users and more than 500 employees. It is backed by blue chip investors including Andreessen Horowitz (a16z), Tiger Global, Sequoia Capital, Ribbit Capital, Paradigm, and Coinbase Ventures. The company aims to become a wealth-tech destination for every Indian.

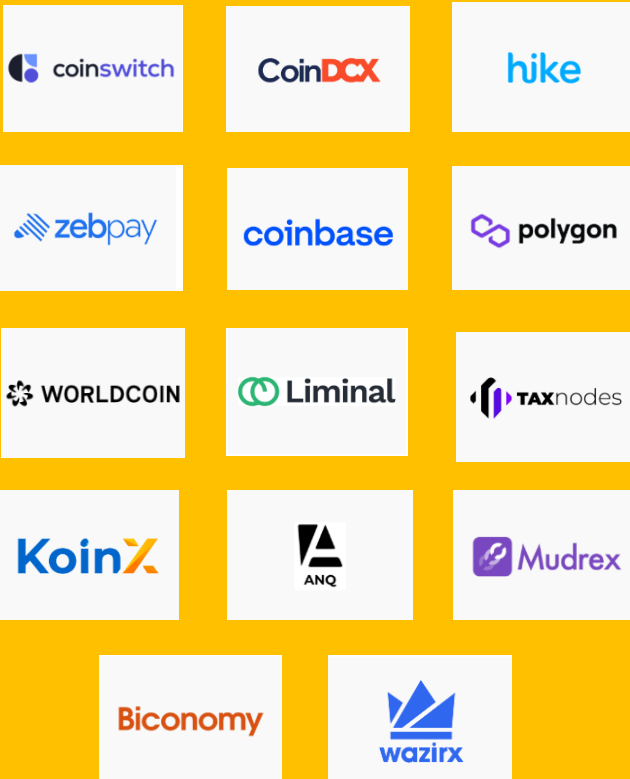
ABOUT US

Bharat Web3 Association (BWA)

Bharat Web3 Association (BWA) is a platform that brings together leading players to enable and support the growth of India's Web3 ecosystem which includes Virtual Asset Service Providers (VASPs), Web3 Developers and infrastructure providers.

BWA believes that India has the potential to lead the world over the next decade by building a strong Web3 ecosystem in the country, in line with the government's "Make-in-India" and Digital India initiatives.

Our Associates



EDUCATE

Through research to keep pace with evolving technology

COLLABORATE

To encourage web3 and blockchain innovation and nurture India's talent pool

PROMOTE

Dialogue between key stakeholders

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