

## **WEB 3.0**

### WHAT IS WEB 3.0, AND WHY DOES IT MATTER?

It's fair to say that the internet is a critical component of modern life. In fact, it would be difficult to comprehend our lives without it, especially in more recent times with a global pandemic that has forced most of us onto the online world—arguably, with greater urgency than ever before—for our occupational, communicative, educational, financial and recreational needs. Indeed, as our reliance on the Web has grown over the last 30 years or so, the Web itself has undergone some seismic metamorphoses during this time.

The first, Web 1.0, represented the internet's commencement in the late 1980s, comprised of static “read-only” webpages created by relatively few participants. Clearly, this was a major breakthrough, allowing anyone around the world to access published content. But while users could read and browse such webpages, they could not interact with them much further than that. With no search engines available during this iteration, moreover, browsing the World Wide Web (WWW) was not the straightforward practice we know today.

By 2000, however, Web 2.0 was up and running. While the first iteration mainly involved a single flow of information from internet publisher to internet user, this new version allowed significantly greater user interaction and participation. Users could create their own accounts across various applications, meaning they had their own unique identities within the online world. This opened up enormous opportunities for businesses, particularly e-commerce, as new internet companies could inexpensively market their products and services to a global base of potential online consumers. The development of web technologies such as JavaScript, HTML5 (HyperText Markup Language 5) and CSS3 (Cascading Style Sheets 3) during this time was pivotal in building these interactive web platforms.

Web 3.0 mainly focuses on connecting data in a decentralised way, rather than having it stored in centralised repositories, with computers able to interpret information as intelligently as humans. As such, users and machines will be able to connect more seamlessly with data, meaning that artificial intelligence (AI) will play a crucial role in making this version of the internet more intelligent and powerful in terms of its ability to process information. Ultimately, this will enable machines to more granularly interpret the meaning behind the data—or its semantics—to deliver significantly smarter user experiences.

Web 3.0's decentralised architecture seeks to address the issues that have stemmed from problems, including user trust, privacy and transparency. By utilising blockchain networks of decentralised nodes that can validate cryptographically secured transactions, there is no need to rely on a single centralised entity as the source of truth. Instead, self-executing smart contracts can be employed that eliminate the requirement for third parties to be involved.

Thus, with this decentralization it would be great opportunity for individuals to take back control from few corporate giants and have better privacy.

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