

# Chapter 17

## Web3 Forward: Trends and Predictions

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### ABSTRACT

*The digital landscape is poised for a transformative shift with the advent of Web3. This dynamic and ever-evolving realm provides a comprehensive overview of the chapter, offering insights into the trends shaping the internet's future. Web3 represents a paradigm shift in how society interacts with the digital world, characterized by decentralization, blockchain technology, and user empowerment. This chapter explores the emerging trends that are set to define the Web3 ecosystem in the coming years. The future of Web3 is crucial to understanding the trends and predictions that will shape our digital world. This chapter equips individuals and organizations with valuable insights to anticipate and harness the unfolding transformations in our digital future.*

### INTRODUCTION

The internet has undergone significant transformations since its inception, evolving from a static information repository to an interactive, dynamic space. Web3 represents the next phase in this evolution, promising a decentralized and user-centric digital landscape. As we navigate through the complexities of Web3, it becomes essential to dissect the technologies underpinning it, understand its evolving ecosystem, and anticipate the future applications that will shape our online experiences. In the early days of the internet, often referred to as Web 1.0, the digital landscape was characterized by static, read-only web pages. These pages, powered by early versions of HTML and supported by data transmission protocols like TCP/IP, SMTP, and HTTP, allowed users to perform basic functions such as transferring data between applications, sending and receiving emails, and reading hypertext online (Choudhury, 2014).

However, despite the functional aspects, Web 1.0 faced notable challenges. One major hurdle was its highly technical nature, acting as a barrier for the average user to actively contribute to online content creation. The intricacies of web development made it a domain accessible primarily to those with tech-

DOI: 10.4018/979-8-3693-1532-3.ch017

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nical expertise. Another significant limitation of this era was the absence of a mechanism to monetize content. Websites struggled to find viable ways to generate revenue, impacting their overall success. The dotcom bust of the late 90s served as a harsh reality check, revealing that the value propositions of websites needed to be more clearly defined and developed (McCormick, 2021). In observation, Web 1.0 can be seen as a foundational stage that laid the groundwork for the internet's evolution. The challenges faced during this period prompted a shift towards more user-friendly interfaces, dynamic content creation, and innovative business models in subsequent phases of the internet's development. The lessons learned during these early years continue to influence and shape the digital landscape we navigate today.

In the transition from Web 1.0 to Web 2.0, HTML improvements and the introduction of XML technology were pivotal. Web 2.0 addressed the web designer bottleneck by democratizing content creation. Now, anyone could actively participate in consuming and contributing to dynamic web pages and blogs. This transformative era led to the emergence of a platform economy dominated by tech giants like Google, Amazon, Apple, Meta (Facebook), and Microsoft, alongside smaller players. These platforms operated as walled gardens, tightly regulating user data and activities within their ecosystems (Kietzmann et al., 2011). While Web 2.0 facilitated greater accessibility and user engagement, it was not without its challenges. The centralized storage of data raised concerns about cybersecurity, privacy, and transparency issues along the supply chain. Unintended consequences highlighted the need for careful consideration and regulation in the rapidly evolving landscape of the internet. Web 2.0 marked a significant leap forward, yet it also brought forth complex issues that required thoughtful solutions (Demetis, 2020; Montecchi et al., 2019).

Web 2.0 revolutionized the front end, allowing non-tech users to create online content and revealing new communication channels. In contrast, Web3, distinct from Web 2.0, focuses on a back-end revolution. It replaces centralized data storage with widely distributed data, offering a fresh approach to information organization. Coined by Ethereum's Gavin Wood, Web3 disintermediates data governance, storing data on blockchains and P2P networks. This decentralized model empowers everyone to monetize their data through tokens, representing assets or access to them, from precious materials to event tickets or incentives for eco-friendly actions (Voshmgir, 2020). Web3 not only transforms data storage but also introduces innovative ways for individuals to harness the value of their data through tokenization. Web3 is not new but a continuation of the cyberpunk and cryptopunk spirit from the 1980s and 1990s. This current revolution injects cyberspace with native economic flows, envisioning a future blockchain-based web that includes cryptocurrencies, NFTs, DAOs, and DeFi (Sheridan et al., 2022). Exploring the positive and negative aspects of Web3 technologies, as well as their organizational influences, is crucial for shaping a positive Web3 future (Part et al., 2023). This chapter equips individuals and organizations with valuable insights to anticipate and harness the unfolding transformations in our digital future.

## **WEB3 TECHNOLOGIES**

In Web3.0, HTML remains foundational, but data connections shift from centralized databases to decentralized blockchains, offering users greater control over information and personal data usage. Web3 signifies a paradigm shift in internet functionality, emphasizing decentralization, blockchain integration, and user-centric empowerment. It serves as a compass for readers navigating the promising, complex, and ever-evolving terrain of Web3. It equips individuals and organizations with valuable insights to anticipate and harness the unfolding transformations in our digital future. Web3.0 is poised to leverage

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