

THE INTERNET BOOM OF THE 1990S: HOW THE WORLD WIDE WEB CHANGED THE WORLD

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Since its establishment in 1989, the World Wide Web has been considered as one of the most influential periods in modern history, changing fundamentally the way people communicate and receive information. The appropriate analysis of this topic allows us to understand and explore how the improvement of the World Wide Web led to the change of key areas of human activity and laid the fundamentals of the modern digital society.

The World Wide Web originated as a project at CERN (European Organization for Nuclear Research) which was directed by British scientist Tim Berners-Lee. The primary goal was to resolve the issue of inefficient search for data located on various computers at CERN. Berners-Lee created the concept of a “large hypertext database” with embedded links connecting different documents, allowing users to quickly navigate between information with a simple click of a mouse. All the key tools such as HTTP protocol, the first web browser, server and website were created by Tim and his team by December 1990 and were made publicly available in 1991. These actions allowed the web to flourish. It was one of the first important steps to overcome information isolation.

Principle of operation

The World Wide Web operates based on a client-server model, consisting of

numerous servers that provide hypermedia documents in response to requests from clients. Each element in this document may have links to other documents or parts of the document. These hypermedia documents are structured in a way that allows for a rich user experience, as users can interact with diverse media formats within a single document. The links within these documents are organized to ensure that every information resource on the global Internet has a unique address (URL), enabling documents to reference not only other documents on the same server but also those on different servers across the Internet. Moreover, web browsers serve as clients for additional Internet services, including FTP, Usenet and email, facilitating access to a wide range of functionalities. Thus, the tools of the World Wide Web are adaptable for multiple services, improving user accessibility and unifying diverse resources, which makes the WWW a fundamental component of the Internet.

Impact on Innovation and Technology development

By creating the foundation of open standards, the World Wide Web has helped create an ecosystem conducive to innovation. Its decentralized nature of the Web has enabled developers and creators to build on existing technologies, significant advances in the fields such as data analysis, artificial intelligence and cybersecurity. The Web's HTTP protocol laid the foundation for secure transactions, leading to HTTPS by the late 1990s, which became crucial for protecting user data in e-commerce and online banking. Another notable innovation is the emergence of APIs (Application Programming Interfaces), which support seamless communication and data sharing between various software applications. APIs have revolutionized industries by permitting the integration of a range of platforms, resulting in services like social media logins and payment gateways.

Conclusion

The Internet Boom of the 1990s, driven by the rise of the World Wide Web, fundamentally transformed human interaction, commerce and technological innovation, laying the groundwork for today's digital society. The Web's open, decentralized structure enabled rapid advancements in secure data exchange, online transactions and application integration – tools such as HTTPS and APIs emerged as

essential features of the digital world. By unifying diverse resources and enabling global information access, the Web has become a pivotal platform for digital communication and development. In this way, the World Wide Web remains a cornerstone of the modern interconnected world.

Reference:

1. Berners-Lee, T. (2000). *Weaving the web: The original design and ultimate destiny of the World Wide Web by its inventor*. Harper San Francisco.
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