**Web Phase: Web 1.0**

**Time Period:** **1991 – 2004**

**Content Type:** Static content

**User Interaction:** Minimal interaction; mostly read-only

**Technology Used:** HTML, CSS, HTTP, early browsers (Netscape, IE)

**Example Platforms:** Early websites (e.g., Yahoo!, AOL, Britannica, GeoCities)

**Security Concerns:** Lack of encryption, weak user authentication, no data privacy protocols.

**Web Phase: Web 2.0**

**Time Period: 2004 - 2012**

**Content Type:** Dynamic content, user-generated

**User Interaction:** Social interaction, comments, content sharing

**Technology Used:** JavaScript, AJAX, Flash, CSS3, RSS, MySQL, PHP

**Example Platforms:** Facebook, YouTube, Wikipedia, Twitter, WordPress, LinkedIn

**Security Concerns:** Privacy concerns, data theft, phishing, cross-site scripting (XSS).

**Web Phase: Web 3.0**

**Time Period: 2012 - Present**

**Content Type:** Semantic content, decentralized

**User Interaction:** Decentralized, more personalized, peer-to-peer

**Technology Used:** Blockchain, AI, machine learning, VR, AR, APIs

**Example Platforms:** Ethereum, Decentral and, Siri, OpenAI (ChatGPT), Crypto Platforms

**Security Concerns:** Smart contract vulnerabilities, blockchain security, privacy issues in decentralized systems.

**Web Phase: Web 4.0**

**Time Period:** 2020 - Future (Emerging)

**Content Type:** Intelligent, autonomous content

**User Interaction:** AI-driven interactions, real-time adaptation, multi-modal (voice, gesture, AR)

**Technology Used:** AI, IoT, edge computing, advanced AR/VR, 5G

**Example Platforms:** Autonomous apps, AI assistants (e.g., Alexa, Google Assistant), Smart Cities

**Security Concerns:** AI/ML manipulation, data surveillance, IoT device hacking.

**Web Phase: Web 5.0**

**Time Period:** Future (Predicted)

**Content Type:** Emotional, intuitive, hyper-personalized

**User Interaction:** Deep emotional interaction, full immersive experiences

**Technology Used:** Advanced AI, Biometric sensors, Deep Learning, Neurotechnology, Quantum Computing

**Example Platforms** Fully immersive VR/AR experiences, brain-computer interfaces, personal assistants

**Security Concerns:** Biohacking, surveillance, data manipulation, ethical concerns in AI interactions

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |