Parameter	Web 1.0	Web 2.0	Web 3.0	Web 4.0	Web 5.0
Time Period	~1990– 2000	~2000– 2010	~2010–2020	~2020-Present	~Future (Evolving)
Content Type	Static	Dynamic and user- generated	Semantic and machine-readable	Ubiquitous, interconnected , smart	Intelligent, empathetic content
User Interactio n	One-way (read-only)	Two-way (interactive)	Personalized and intelligent responses	Multi-device, predictive, seamless	Human-like, emotional interactions
Technolog y Used	HTML, HTTP, CSS	HTML, CSS, JavaScript, PHP, AJAX	RDF, OWL, SPARQL, Blockchain, Al	IoT, AI, Augmented Reality, Big Data	Advanced AI, Neural Networks, Brain- Computer Interfaces
Example Platforms	Early websites (static HTML)	Facebook, YouTube, Wikipedia	Siri, WolframAlpha, Blockchain platforms	Smart homes, AR/VR systems, Amazon Alexa	Neuralink (potentially), emotionally intelligent Als
Security Concerns	Minimal data security	Privacy issues, insecure APIs	Data misuse, identity theft	IoT device vulnerabilities, data integrity	Brain- hacking, AI manipulation
Attacks	Website defacemen t	SQL Injection, Cross-Site Scripting	Al bias, cryptojacking, data poisoning	IoT botnets, augmented reality spoofing	Neural or emotional hacking, advanced AI attacks