

 Comparative Analysis of Web2 and Web3  
  
**Objective/Aim:**  
  
 To examine the evolution of the internet by comparing Web2 and Web3, focusing on their working principles,

features, benefits, limitations, and overall impact on users and businesses.

**Apparatus/Software Used:**

* Personal Computer or Laptop
* Google Docs / MS Word for report preparation
* Canva / PowerPoint for presentation design
* Internet resources (articles, research papers, blogs, and documentation)

**Theory/Concept:**

**Web2 – “Read & Write Web”**

* Started around 2004 and is still widely used
* Focus on **social and interactive platforms** (YouTube, Facebook, Instagram).
* Data stored on **centralized servers** controlled by companies.
* Easy to use and accessible for all.
* Issues: **low privacy, security risks, and company control over user data**

**Web3 – “Read, Write & Own Web”**

* Based on **blockchain and decentralization**.
* Users have **ownership and control of their data**.**Ba**
* Examples: **Ethereum, Filecoin, dApps**.
* Features: **high privacy, transparency, and censorship resistance**.
* Limitations: **complex to use, scalability challenges, and slow adoption**.**sed**



**Procedure:**

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1.Collected information on Web2 and Web3 from online resources.

2. Identified core features, advantages, and drawbacks of both systems.

3. Compared both models based on data ownership, privacy, scalability, and usability.

4. Prepared diagrams and comparative notes.

5. Compiled findings into a structured lab report and presentation.

**Observation Table:**



| **Feature** | **Web2 (Read & Write)** | **Web3 (Read, Write & Own)** | **Web3 (Read, Write & Own)** |
| --- | --- | --- | --- |
| **Architecture** | Centralized servers | Decentralized blockchain |
| **Control** | Companies control data | Users/community control data |
| **Data Ownership** | Platforms own user data | Users own their data |
| **Examples** | Google, Facebook, YouTube | Ethereum, Filecoin, dApps |
| **Privacy** | Low, data sold for ads | High, secured bycryptography |
| **Security** | Prone to breaches | Strong, blockchain-based |
| **Censorship** | Can be censored | Resistant to censorship |
| **Scalability** | Easily scalable | Still improving |
| **Monetization** | Ads and user data | Tokens, crypto rewards |
| **Transparency** | Limited, hidden algorithms | Open and transparent |

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