

Introduction to Web3

Lecture 1 (2023-03-08)

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By chatGPT

Today's Lecture

Today's Lecture Overview

- **Lecture Objective**
 - Understanding the concept and tech of Web3 and blockchain
 - Getting a balanced view of Web3 and blockchain
- **Lecture will cover**
 - The history of the Web
 - Web3 with a use case
 - Web3 stack and Web3 apps
 - The dark side of Web3/Blockchain/Crypto
 - Wrap up

Note before we get started

Today's lecture is non-technical.
We'll take a big picture of Web3 and blockchain.

Today's lecture will cover
the entire spectrum of Web3 and blockchain.
Don't worry if you don't understand everything.
We will come back to it in later lectures

Today's lecture is geared toward beginners.
However, there may be insights.

Lecture 1.

The History of the Web

The birth of the Web

World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policy](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

[What's out there?](#)

Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

[Help](#)

on the browser you are using

[Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#) ,X11 [Viola](#) , [NeXTStep](#) , [Servers](#) , [Tools](#) , [Mail robot](#) , [Library](#))

[Technical](#)

Details of protocols, formats, program internals etc

[Bibliography](#)

Paper documentation on W3 and references.

[People](#)

A list of some people involved in the project.

[History](#)

A summary of the history of the project.

[How can I help ?](#)

If you would like to support the web..

[Getting code](#)

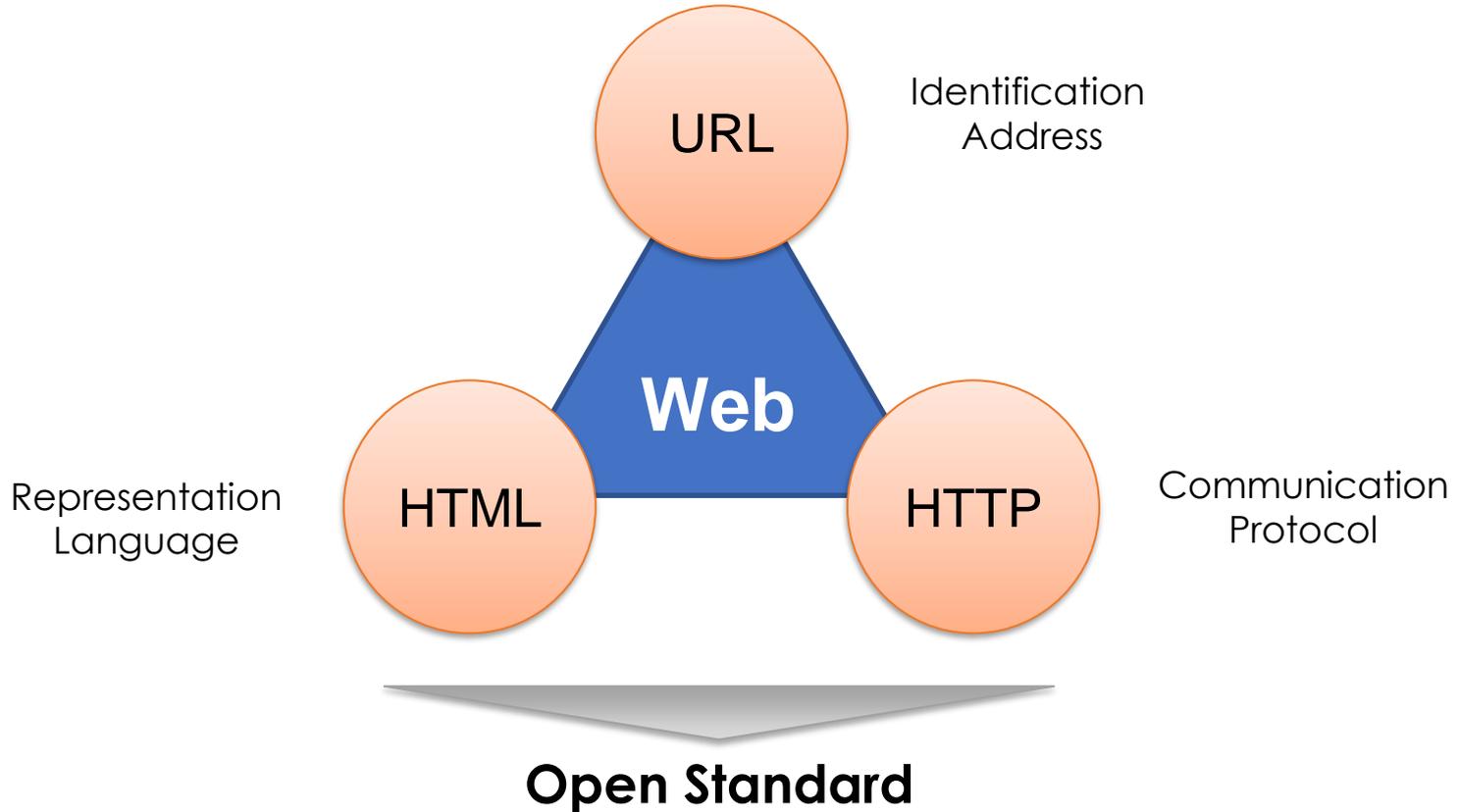
Getting the code by [anonymous FTP](#) , etc.



Tim Berners-Lee

The first web page (August 6, 1991)
<http://info.cern.ch/hypertext/WWW/TheProject.html>

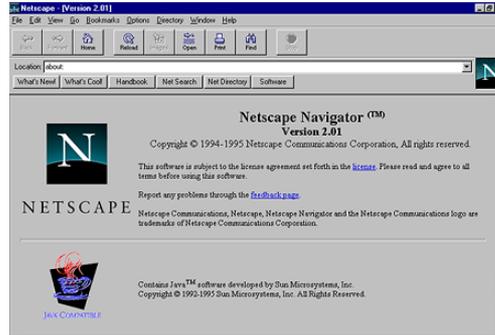
Key Components of the Web



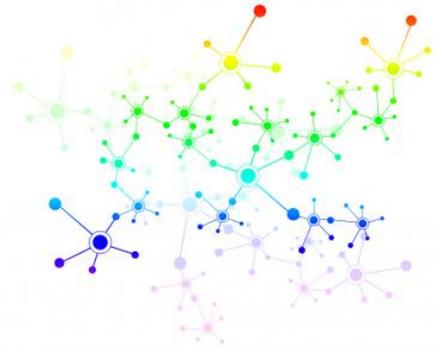
How the Web Became Widespread



Open Standard



Killer Client



Decentralized



Web 1.0

Web 1.0



[Get Local](#)



Click here **You could win a trip to Hawaii!**
American Express® Travel

[Weekly Picks](#)

Search

[Options](#)

[Yellow Pages](#) - [People Search](#) - [City Maps](#) -- [Stock Quotes](#) - [Sports Scores](#)

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Portal

Web 1.0

AOL.com - Welcome to AOL - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://www.aol.com/?optin=beta3

Accounts My www RSS e-mail RIPE

Google Search

AOL.com - Welcome to AOL Yahoo!

Back to Current Site Give Us Feedback Make AOL Your Home Page Get AOL Toolbar Better Positions: AOL Find A Job

AOL beta

AOL Mail Page Tour

Web Images Video News Local BETA More

Enhanced by Google Search

Hot Searches: Rosie O'Donnell Barbie 'Grey's Anatomy' Gwen Stefani See More

Directory

- Auto
- Finance
- Games
- Health
- Jobs
- Living
- Local
- Love@AOL
- MapQuest
- Movies
- Music
- People
- Pictures
- Real Estate
- Shopping
- Sports
- Television
- Travel
- Yellow Pages

In Lifestyle



Makeup That's Worth the Splurge
Beauty Editors Say They Spend More On These Products: Top 5 Essentials

See Celebs -- Without Makeup
Eva, J.Lo, Cameron Natural Beauties?

Is That a Good Deal?
- Find a Swimsuit That Flatters You
- Do Hair Products Cause Bad Skin?

Next in Marketplace: Seven Rules for Buying a Car 3/5

News Finance Entertainment Video

Apr 28, '07 as of 10:05 AM EDT

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- Officials Grasp for Motive in Virginia Rampage
- Friendly Fire Likely Killed New York Trooper
- Man Allegedly Stabs Girlfriend's Sons to Death
- Toxic Algae Killing Scores of Birds, Sealife
- Earthquake Raises WWII Ship From Sea Floor
- Doctors Remove Tumor From Newborn's Neck

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Mail Weather AOL Radio Horoscopes

Free AOL E-Mail: Sign Up & Get Security Tools

Do you know your Credit Score?

Excellent	750 - 850	Fair	620 - 659
Good	660 - 749	Poor	350 - 619

I Don't Know Find out INSTANTLY!

What is YOUR Credit Score? Find Out Here | Ad Feedback

Free From AOL

- Sign Up for Free AOL Email
- Try All-New AIM 6.1
- Get AOL Toolbar for Your Browser
- New AOL 9.0 All-in-One Software

More at Discover AOL

Bad Credit Refinancing -- \$350,000 Loan Only \$1,349 a Month: Refi Rate: 4.625%

Done

AOL.com - Welcome t... Macromedia Fireworks... 16.203s 5:19 PM

Web 1.0

Read-Only Web
(Static Web)

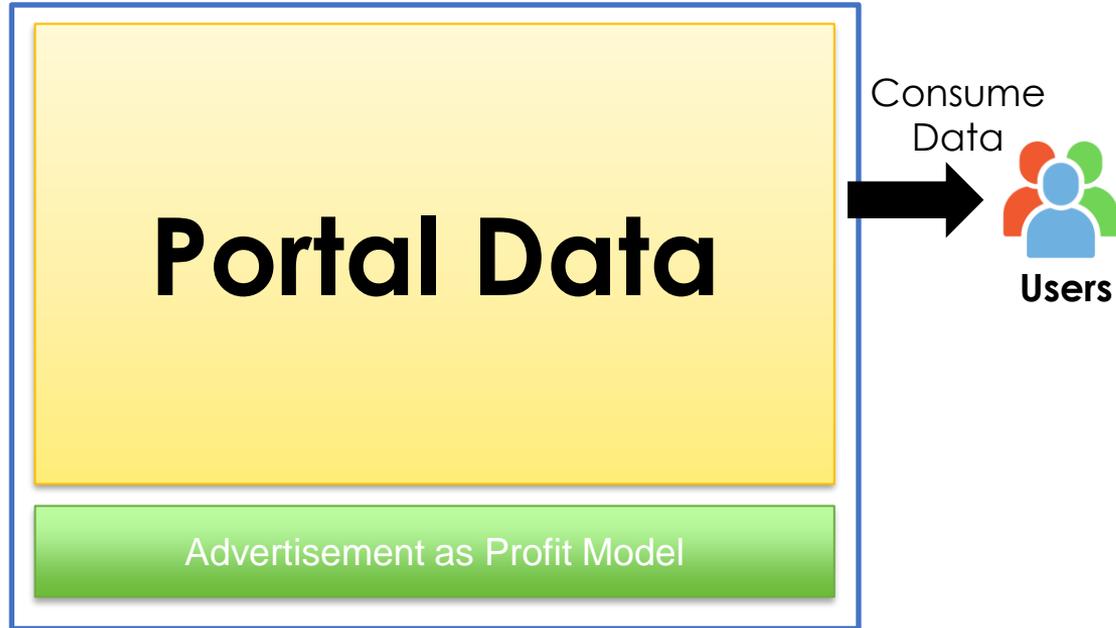
People just consume data

The beginning of **Information** Age

Killer Apps: Yahoo, AOL, Netscape, etc

How Portal Works

Portal (e.g., Yahoo)



Mid 2000s

The web became **interactive**



JavaScript



Interactive web technologies



Content publish services

2007

Smartphone as a data input device



Web 2.0



WORDPRESS

web2hub <https://web2hubkr.wordpress.com/>

예전 web2hub.com 블로그 기록들을 보관합니다.

PlatformDay 2007

leave a comment »

20070302 PlatformDay

목차

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- [1 발표자료](#)
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- [3 메일링리스트](#)
- [4 PlatformDay에 여러분을 초대합니다.](#)
- [5 일시 및 장소](#)
- [6 대상](#)
- [7 발표요약](#)
- [8 일정](#)
- [9 발표자료샘플](#)
- [10 참가신청](#)

발표자료

세션1. [GISP-PlatformDay-20070302](#) 한재선

세션2. [Hadoop](#) 윤진석 김형준

후기

- 한재선 <http://www.web2hub.com/blog/jshan/78>

메일링리스트

검색

검색

카테고리

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[행사들](#)

[차세대웹기술강의-2008](#)

인기글

[PlatformDay 2007](#)

[TagDay 2006](#)

[\[차세대웹기술수업-강의04-04\]](#)

[Facebook - Social Platform](#)

[\[차세대웹기술수업-강의04-03\]](#)

[Google - Ad Platform](#)

[\[차세대웹기술수업-강의04-02\]](#)

[eBay - E-commerce Platform](#)

[\[차세대웹기술수업-강의04-01\]](#)

[All About Platform](#)

[\[차세대웹기술수업-강의03-05\]](#)

[Advanced Issues About](#)

[Open&Sharing - Data](#)

[Portability](#)

[\[차세대웹기술수업-강의03-04\]](#)

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[\[차세대웹기술수업-강의03-03\]](#)

[Advanced Issues About](#)

[Open&Sharing - Open Social](#)

Web 2.0

Read-Write Web
(Interactive Web)

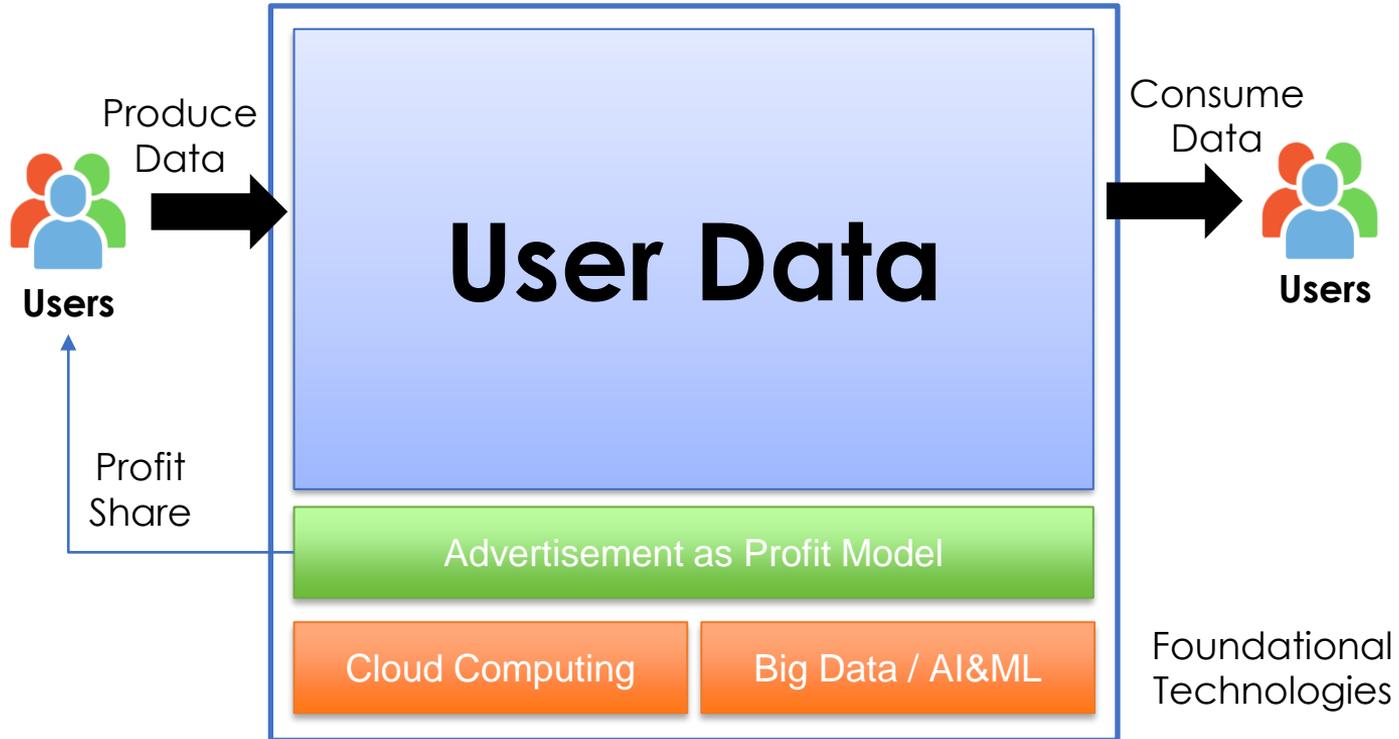
People produce & consume data
→ Explosion of user-generated content

The emergence of **Platform**

Killer Apps: Google, Facebook, Amazon, etc

How Platform Works

Platform (e.g., Facebook)



Platform Issues on User Data

- Data breaches
- Privacy concerns
- Misuse of data
- Spread of misinformation
- Lack of control over data
- and more

The web is
centralized and fragmented
by platforms

Here comes Web3

Web3

frees user data from platforms
and returns the Web to its original
decentralized Web

Web3

 Mirror
<https://mirror.xyz/>

A beginner's guide to NFTs

Linda Xie

TOTAL RAISED
2.38 ETH

COLLECTORS
52

Collect NFT



FIRST COLLECTOR
@awkweb



TOP COLLECTOR
@gabusch



LATEST COLLECTOR
0x9Cb8...45E92A

View Leaderboard

A beginner's guide to NFTs

0x5e34 January 5th, 2021

What are NFTs?

Non-fungible token (NFT) is a term used to describe a unique digital asset whose ownership is tracked on a blockchain, such as Ethereum. Assets that can be represented as NFTs range from digital goods, such as items that exist within virtual

 **Legendary**
Edition of 5

 @gabusch 0x7405 1/5

 **Rare**
Edition of 50

 @travpreneur 0x6F1B 1/50

 @Cooopahtroopa 0x4630 2/50

 @natemodi 0xA499 3/50

 0xdc2E...a2E6f7 4/50

 @opt1m3 0x4981 5/50

 @timrix 0x6E7c 6/50

 @web3brett 0x1e34 7/50

 0x1a36...8E8CE5 8/50

 0x2d48...Afa400 9/50

Common

Edition of 500

 @awkweb 0xA0Cf 1/500

 @literature 0x5507 2/500

 @CryptoChris91 0x9792 3/500

 @travpreneur 0x6F1B 4/500

 @stxsmith 0x2e44 5/500

 @tandavas 0xdCdb 6/500

 0x530c...ceFD19 7/500

 0x2525...4B47f3 8/500

 0xda03...2F3223 9/500

 @tolehuco 0x7bC1 10/500

 @chaykak 0x25cb 11/500

 @jaesmail 0x70eC 12/500

 @m1guelpf 0xE340 13/500

 @ccarella 0x3B60 14/500

 @ccarella 0x3B60 15/500

 0xd5fb...5924f5 16/500

 0x00Ea...f5BD2C 17/500

 0x156F...00753A 18/500

 0x1200...2329b2 19/500

 @nosolnick 0x6Ec6 20/500

 @rafathebuilder 0xe62d 21/500

 @allofuscommand 0xF8FD 22/500

 @julianweisser 0x76ce 23/500

 @yuhanwang001 0x7c3C 24/500

Web3



Scan

<https://app.poap.xyz/scan/vitalik.eth>

Hey **vitalik.eth!** (0xd8dA...6045)

These are the events you have attended in the past

2023



Web3

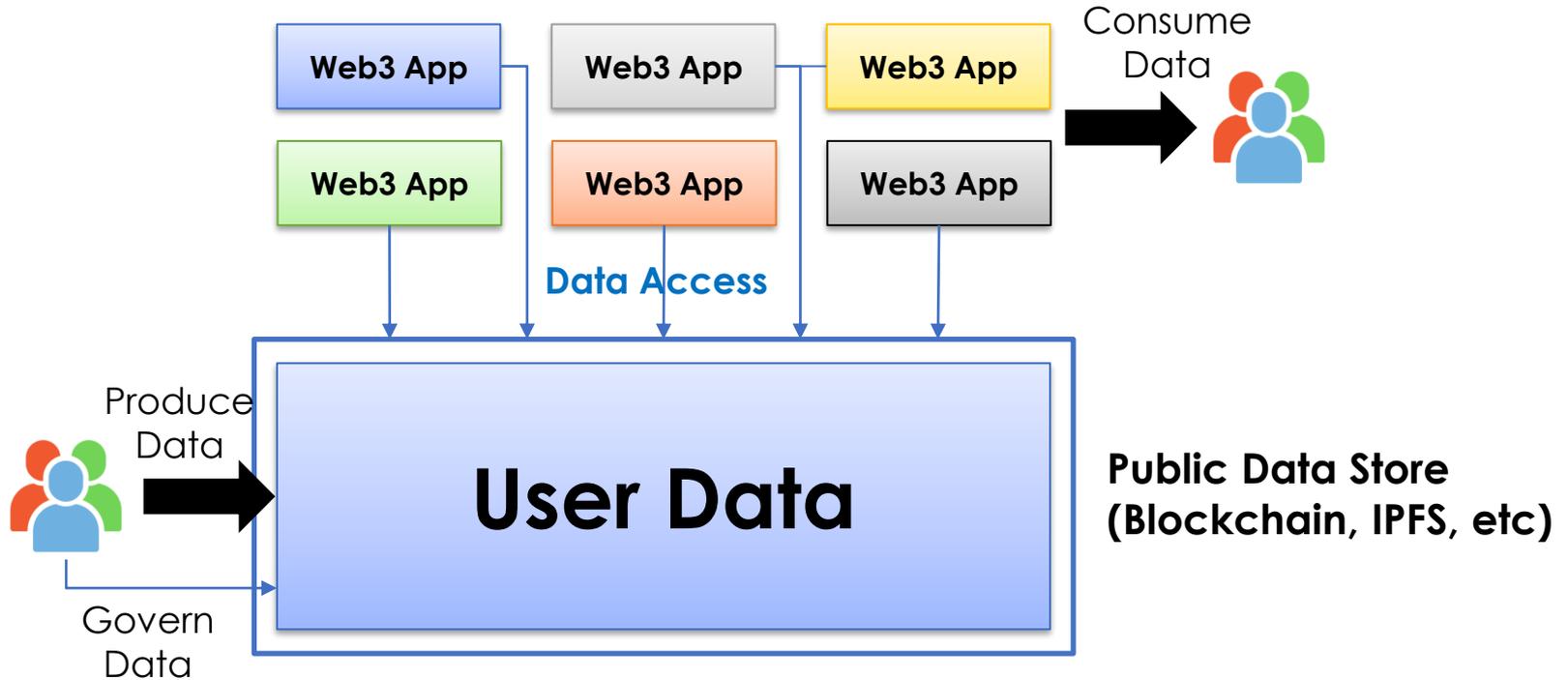
Read-Write-Own Web
(Decentralized Web)

People produce & consume & own data

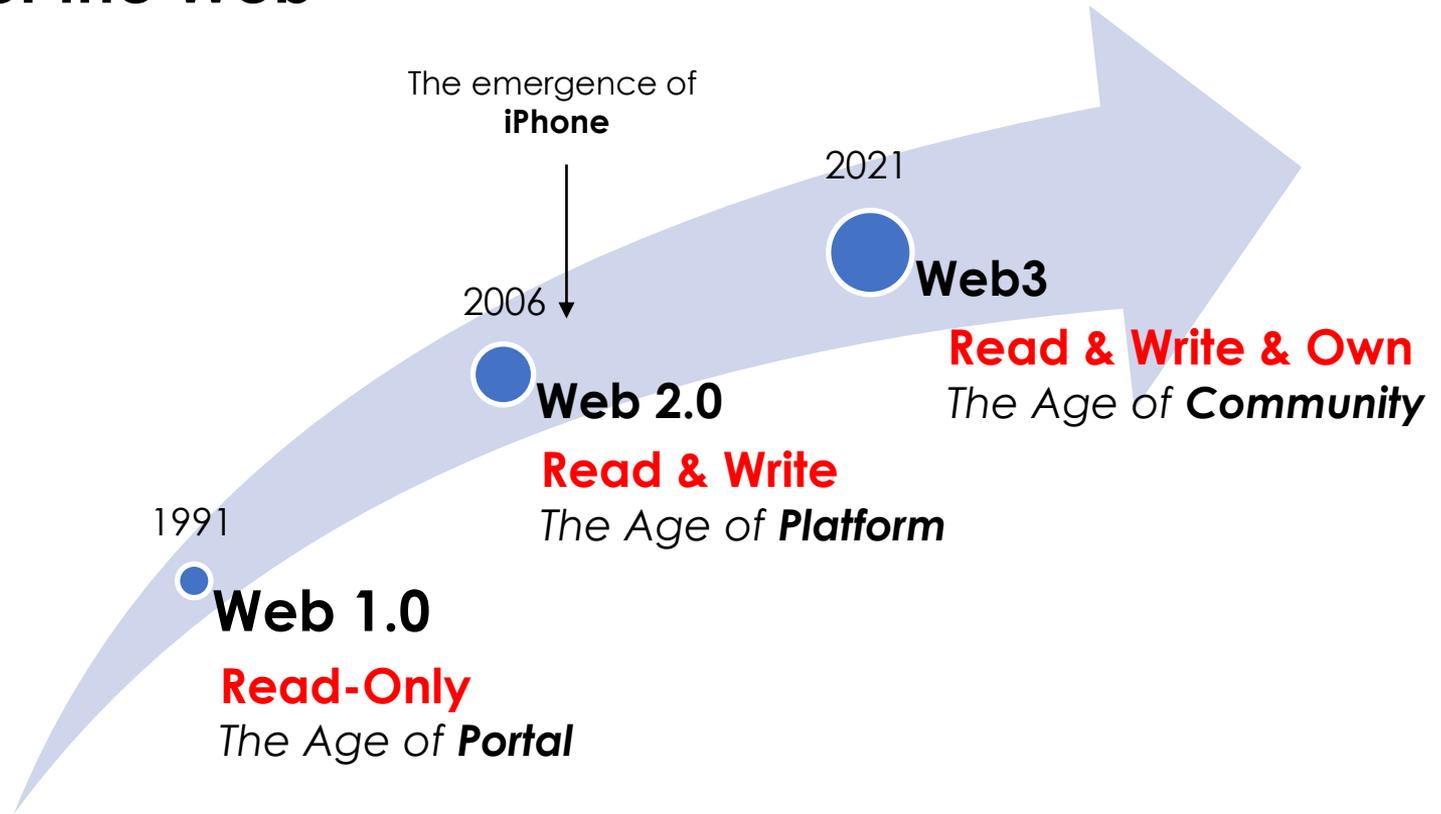
Governance by **Community**

Killer Apps: Not yet

How Web3 Works



Evolution of the Web



Web3 with Use Case

Various Web3 Definitions

Vitalik Buterin, co-founder of Ethereum:

"Web3 is a vision for a fully *decentralized internet*, where users are *in control of their own data and applications* run on *public, open-source networks* that are not controlled by any single entity."

Joseph Lubin, co-founder of ConsenSys:

"Web3 is a new version of the Internet where users have *true ownership of their data* and can transact with each other directly, without intermediaries. It's a *decentralized network* where users can interact with decentralized applications (dApps) *built on blockchain technology*."

Brian Armstrong, CEO of Coinbase:

"Web3 is about *empowering individuals* and removing intermediaries, allowing for a *more decentralized and open internet*. It's about giving people *control over their own data* and *creating new economic opportunities* through decentralized finance and other Web3 applications."

Jason's Web3 Definition

Web3 is a new vision of the Internet where people **control their own data** and create **new economic opportunities**, extending the Internet from a network of information to **a network of value**.



Web3 is all about **Data Sovereignty**

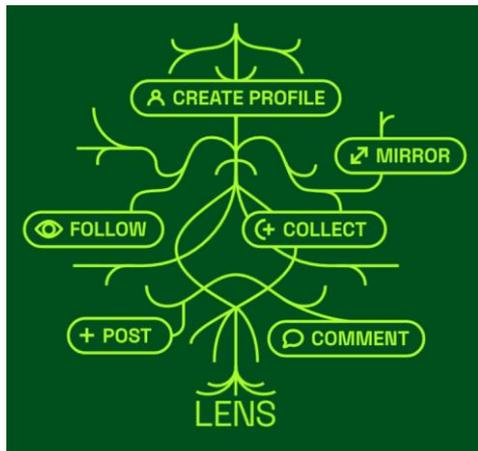
Four Features of Web3

1. **Data Ownership** to users
2. Data as **Digital Assets**
3. **Communities** as data governance actors
4. **Protocols** as data utilization tools

Use Case: Lens Protocol

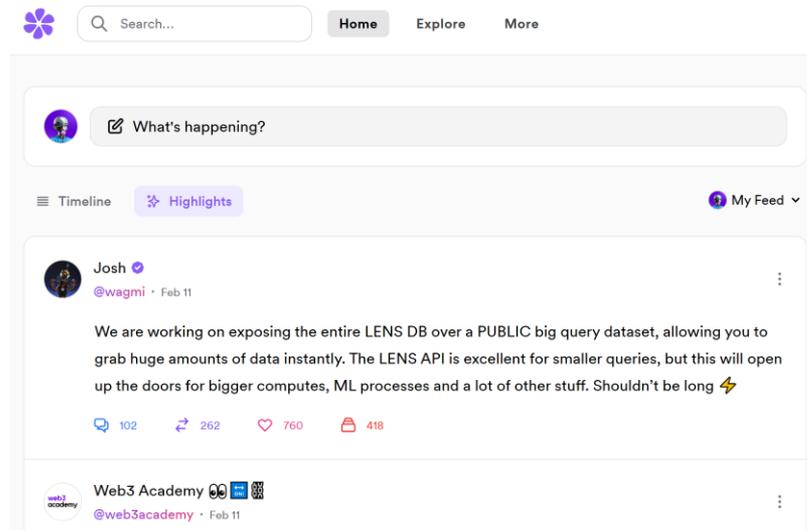
A user-owned, open social graph that any application can plug into

social graph
data elements



<https://www.lens.xyz/>

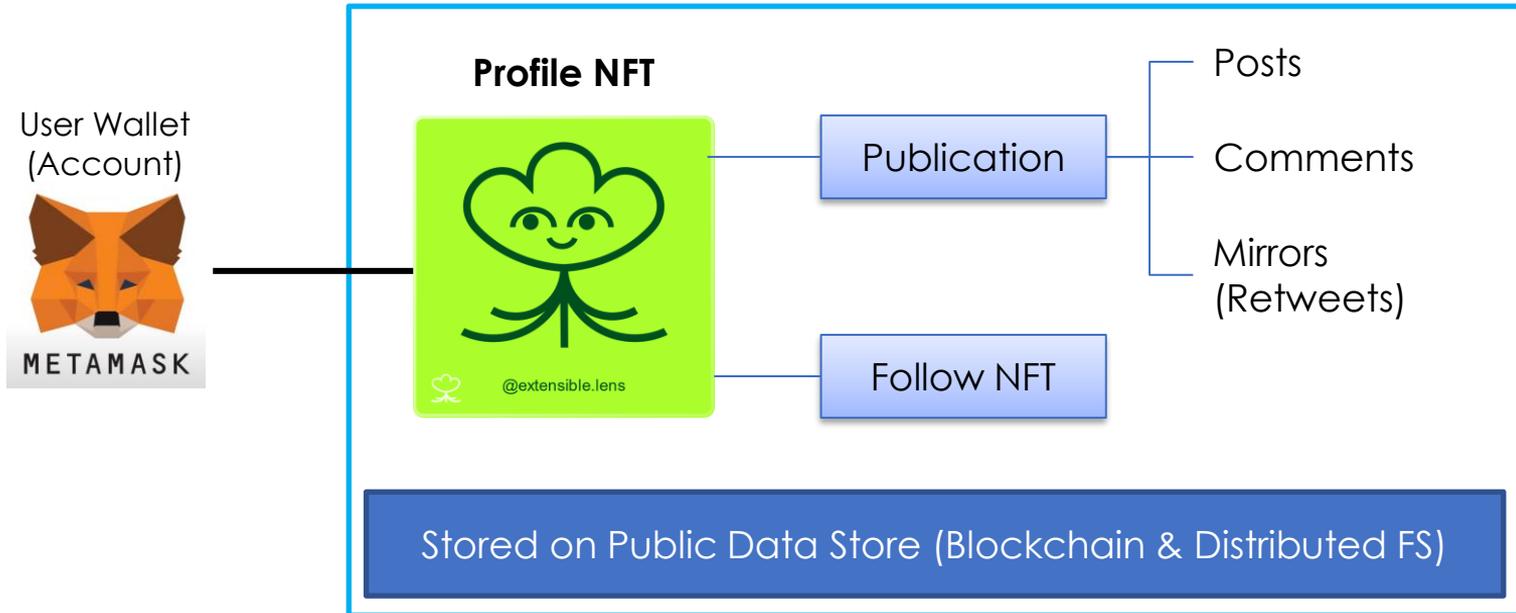
Lenster – Web3 twitter



<https://lenster.xyz/>

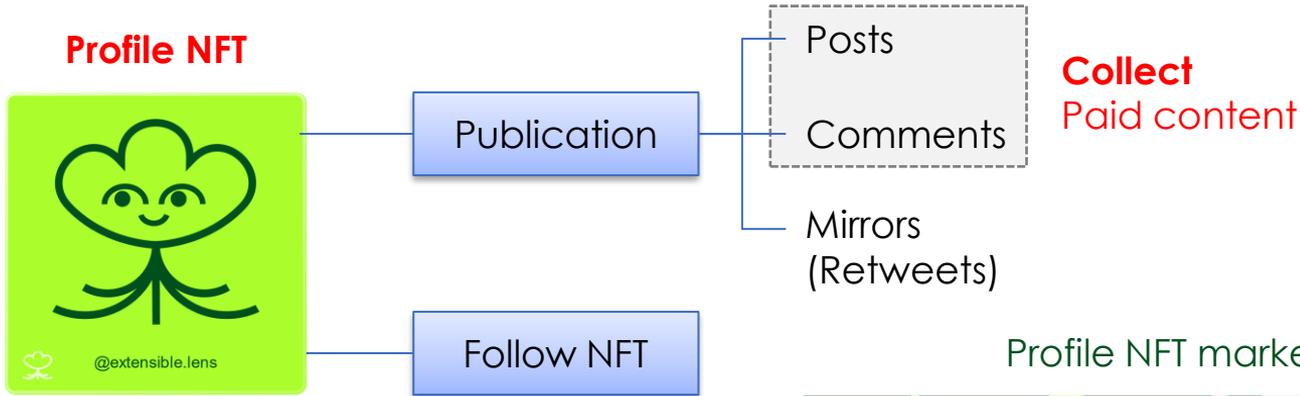
1. Data Ownership to Users

Profile NFT is a key element to own your data and gives you control of your contents



2. Data as Digital Assets

Follow NFT, Collect, Profile NFT as a digital asset



Buy & Sell
a Profile NFT
with all content

Follow
with a fee

Profile NFT market on OpenSea

The screenshot shows the OpenSea collection page for **Lens Protocol Profiles**. The collection features a grid of profile NFTs, each with a green background and a stylized character. The collection statistics are as follows:

915 ETH	97 USDC	4%	101,646	92%
total volume	floor price	listed	owners	unique owners

Additional details: Items 110K · Created May 2022 · Creator earnings 0% · Chain Polygon · Category Art. The page also displays individual profile NFTs with their respective handles and prices, such as `@imaginarij.lens` for 97 USDC and `@poytandeven540.lens` for 0.064 ETH.

<https://opensea.io/collection/lens-protocol-profiles>

3. Communities as data governance actors

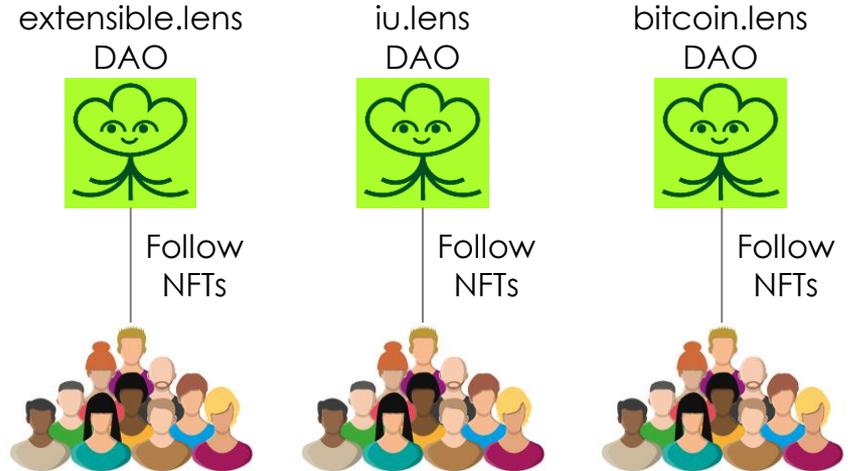
Governance for Lens Protocol

Community Multisig by the Lens community

- Setting up Governance and Emergency Admin Addresses
- Setting Treasury Addresses and Fees
- Whitelisting Assets
- Moving the Lens Protocol System into a Publishing Paused or fully Paused state
- Whitelisting addresses to create profiles
- Whitelisting Follow, Collect, and Reference Modules
- Upgrading the Lens Protocol Hub Contract

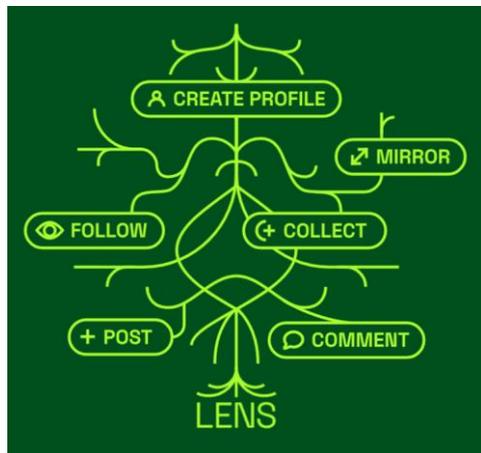
Governance for social communities

Built-in governance of Follow NFTs
to create a social DAO
(Decentralized Autonomous Organization)



4. Protocols as data utilization tools

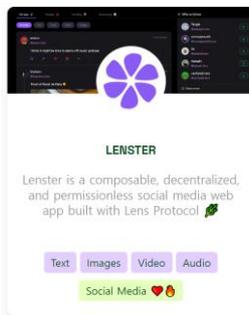
Lens Protocol makes user's social graph data **a social graph protocol**
Applications utilize Lens Protocol to access user's social graph



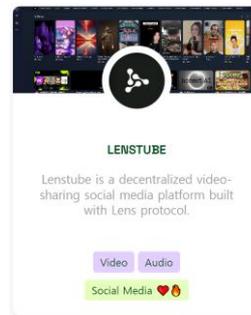
Lensverse

Hundreds of applications built on top of Lens Protocol

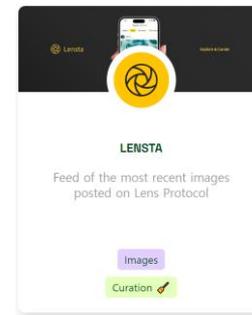
Web3 Twitter



Web3 Youtube



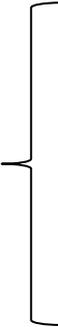
Web3 Instagram

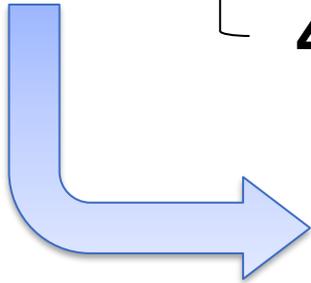


<https://www.lens.xyz/apps>

Revisit: Four Features of Web3

**Web3
Building
Blocks**

- 
1. **Data Ownership** to users
 2. Data as **Digital Assets**
 3. **Communities** as data governance actors
 4. **Protocols** as data utilization tools



Web3 Stack

Q & A

[Reminder] 9pm – 11pm today, Q&A session about the class
on Discord the channel #class-faq