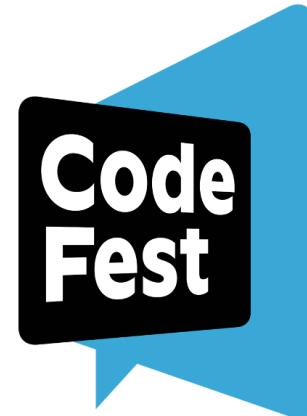


# Web3 для фронтендера

Алексей Авдеев, Mish





2



Aleksei Avdeev  
@avdeev\_alexey

...

Коллеги, мы пообещали, поэтому вы должны успеть

12:29 PM · 13 сент. 2022 г.

---

40 ретвитов

11 твитов с цитатами

454 отметки «Нравится»

FC FrontendConf 2022 - Професс +

← → C 🔒 frontendconf.ru/moscow/2022

# Программный комитет



**Глеб Михеев**  
Skillbox



**Виктор Русакович**  
GP Solutions



**Саша Шинкевич**  
Bravado



**Иван Ботанов**  
Тинькофф



**Серёжа Попов**  
Skillbox



**Зар Захаров**  
VK



**Андрей Смирнов**  
X5 Group



**Алексей Авдеев**  
Mish

JavaScript-фреймворк React.js

go.skillbox.ru/education/course/react-js

## 12. Формы на примере комментариев и карточки поста

JavaScript-фреймворк React.js

С финальной работой

33/80 видео

0/15 практических работ

0/1 тест

Телеграм-чат курса

Задать вопросы по темам курса вы можете в [Telegram-чате курса](#).

12.1 Экскурс в формы. Проблематика форм React

10 мин.

12.2 Состояние полей. Различные подходы

9 мин.

12.3 Выбираем библиотеку для форм

6 мин.

12.4 Сохраняем состояние формы и валидируем поля

13 мин.

12.5 Смотрим на форму с точки зрения доступности

13 мин.

12.6 Практическая работа

13. «Бесконечные» списки на примере ленты постов

14. Роутинг

15. Deploy

A close-up portrait of a young man with light brown hair and blue eyes, looking directly at the camera with a slight smile. He is wearing a white t-shirt. The background is blurred, showing what appears to be an office environment.

# **JSON API — работаем по спецификации**

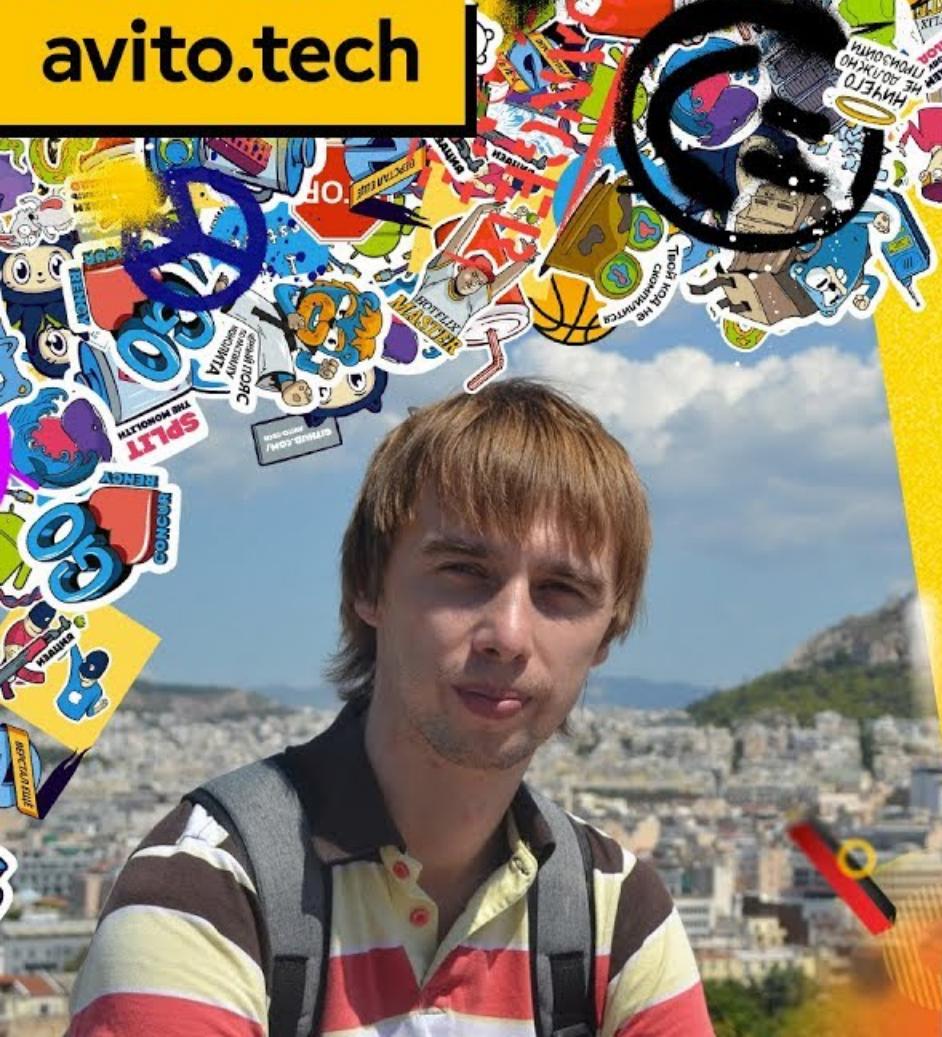
Алексей Авдеев,  
*Neuron.Digital*

**FC**

**Frontend**  
Conf  
**Moscow** 2018



avito.tech



**Docker для  
фронтендера**  
Алексей Авдеев  
(Neuron.Digital)

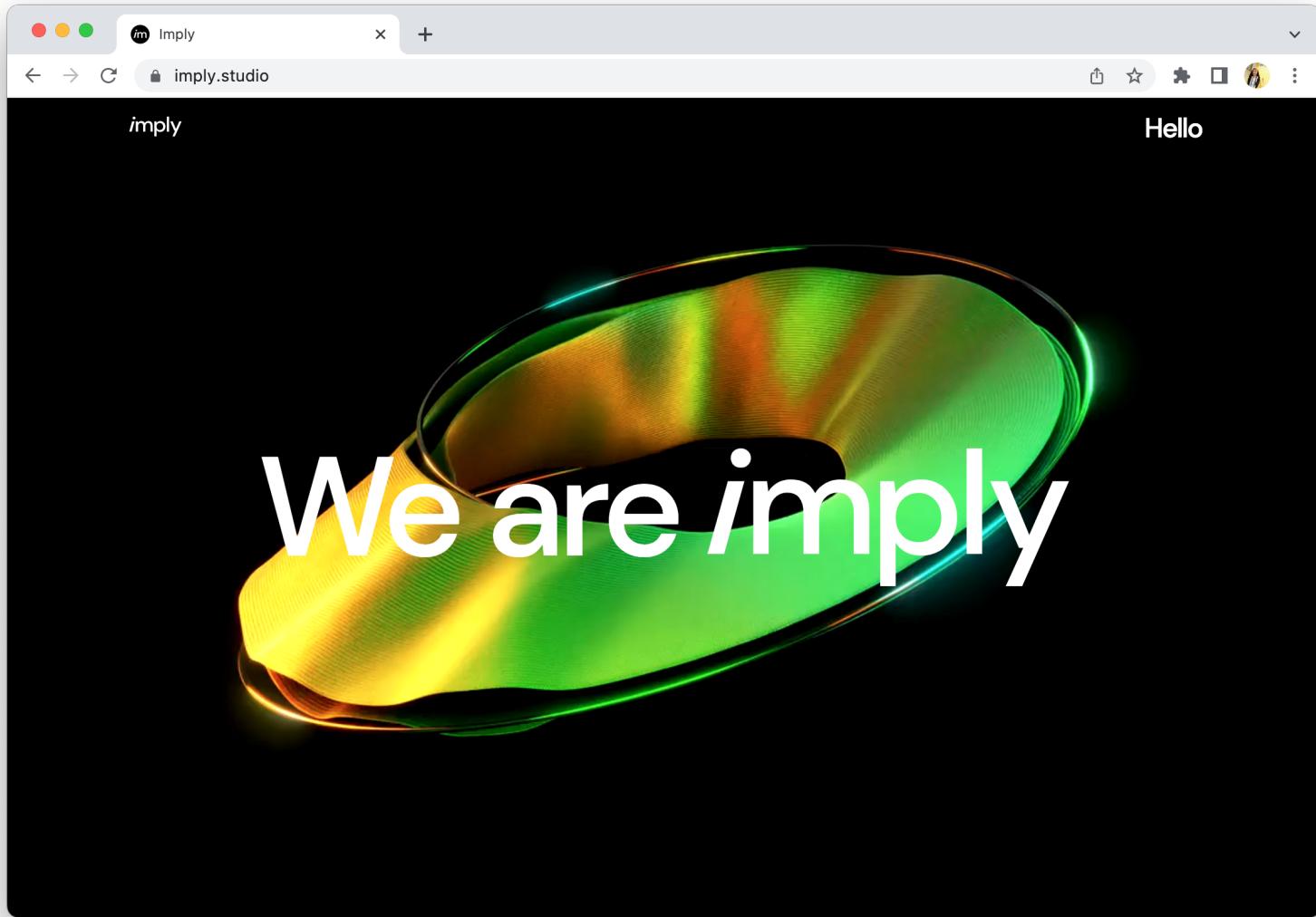


**FC** Frontend  
Conf 2019



## ПРОГРАММИСТЫ VS УЧИТЕЛЯ ИНФОРМАТИКИ





# Web 2.0



What Is Web 2.0 - O'Reilly Med X +

oreilly.com/pub/a/web2/archive/what-is-web-20.html



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# What Is Web 2.0

## Design Patterns and Business Models for the Next Generation of Software

by Tim O'Reilly  
09/30/2005

*Oct. 2009: Tim O'Reilly and John Battelle answer the question of "What's next for Web 2.0?" in [Web Squared: Web 2.0 Five Years On](#).*

The bursting of the dot-com bubble in the fall of 2001 marked a turning point for the web. Many people concluded that the web was overhyped, when in fact [bubbles and consequent shakeouts appear to be a common feature of all technological revolutions](#). Shakeouts typically mark the point at which an ascendant technology is ready to take its place at center stage. The pretenders are given the bum's rush, the real success stories show their strength, and there begins to be an understanding of what separates one from the other.

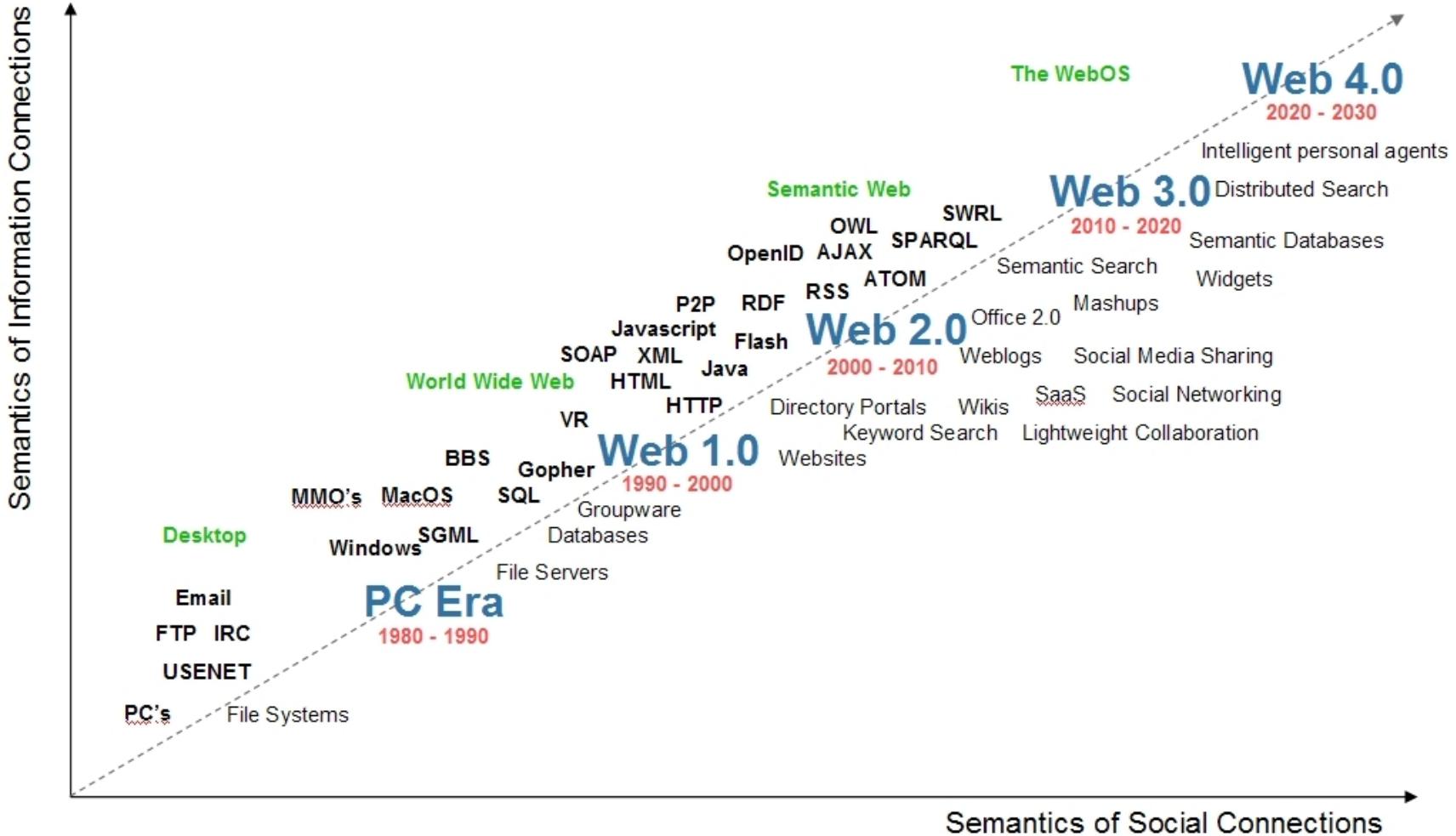
The concept of "Web 2.0" began with a conference brainstorming session between O'Reilly and MediaLive International. Dale Dougherty, web pioneer and O'Reilly VP, noted that far from having "crashed", the web was more important than ever, with exciting new applications and sites popping up with surprising regularity. What's more, the companies that had survived the collapse seemed to have some things in common. Could it be that the dot-com collapse marked some kind of turning point for the web, such that a call to action such as "Web 2.0" might make sense? We agreed that it did, and so the [Web 2.0 Conference](#) was born.

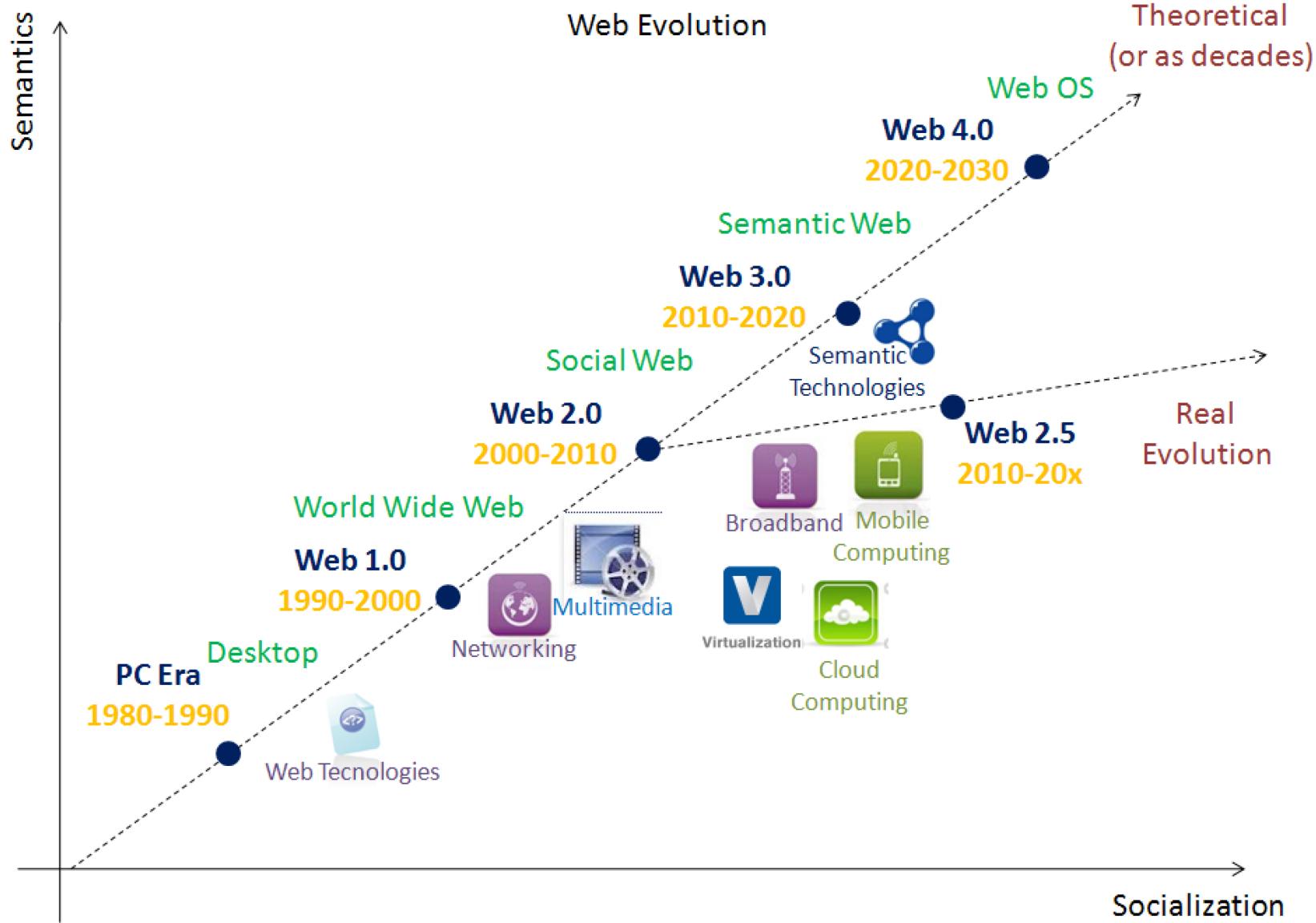
In the year and a half since, the term "Web 2.0" has clearly taken hold, with more than 9.5 million citations in Google. But there's still [a huge amount of disagreement about just what Web 2.0 means](#), with some people decrying it as a meaningless marketing buzzword, and others accepting it as the new conventional wisdom.

Read this article in:

- Arabic
- Chinese
- French
- German
- Italian
- Japanese
- Korean
- Spanish

# Таймлайны





# Web3



# Википедия

Свободная энциклопедия

Alexey.avdeev



Обсуждение Черновик Настройки Бета Список наблюдения

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# Web3

[ [править](#) | [править код](#) ]

Материал из Википедии — свободной энциклопедии

Не следует путать с [Web 3.0](#) — концепцией, основанной на [семантической паутине](#).

**Web3**<sup>[1]</sup> — это идея новой итерации [Всемирной паутины](#) на основе [блокчейна](#), которая включает в себя такие концепции, как децентрализация и экономика на основе [токенов](#)<sup>[2][3][4]</sup>. Некоторые специалисты и журналисты противопоставляют её [Веб 2.0](#), где, по их мнению, данные и контент централизованы в небольшой группе компаний, иногда называемых [GAFAM](#)<sup>[5]</sup>. Термин был придуман в 2014 году соучредителем [Ethereum](#) [Гэвином Вудом](#), а в 2021 году идеей заинтересовались криптовалютные энтузиасты, крупные технологические компании и венчурные фирмы<sup>[5][6]</sup>.

[Содержание](#) [ скрыть ]

## **Web 1.0**

Username

Password

## **Web 2.0**

Sign in with Google



Sign in with Facebook



Sign in with Twitter



## **web3**

connect wallet

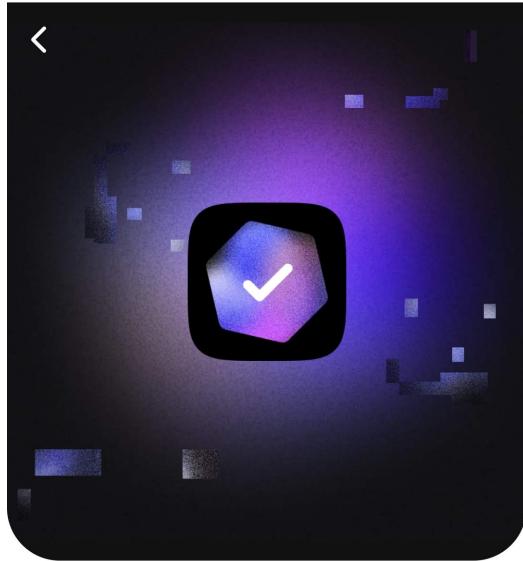
# Web 2.5 (now)

A Venn diagram consisting of three overlapping circles on a purple background. The left circle is yellow and labeled "Web 2". The right circle is red and labeled "Web 3". The middle circle is orange and labeled "Web 2.5". All three circles overlap.

**Web 2**

**Web 2.5**

**Web 3**



## Добро пожаловать в VK NFT

Здесь вы можете хранить свои NFT  
и следить за обновлениями друзей

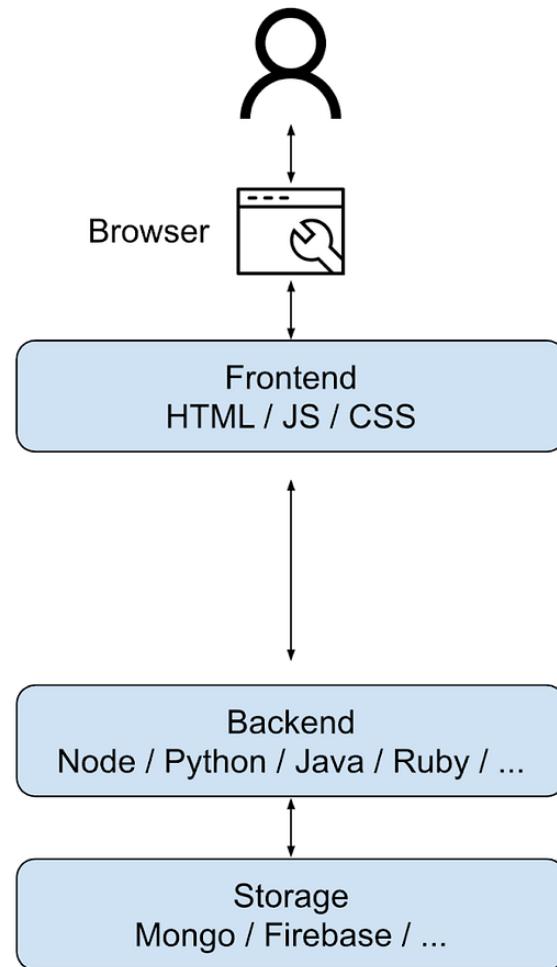
[Что такое NFT?](#)

Дальше

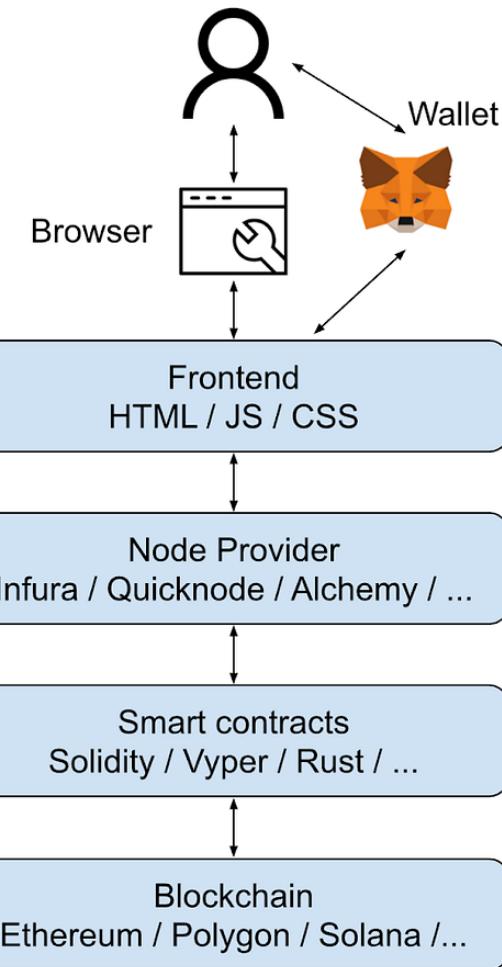


# Архитектура

Web 2.0

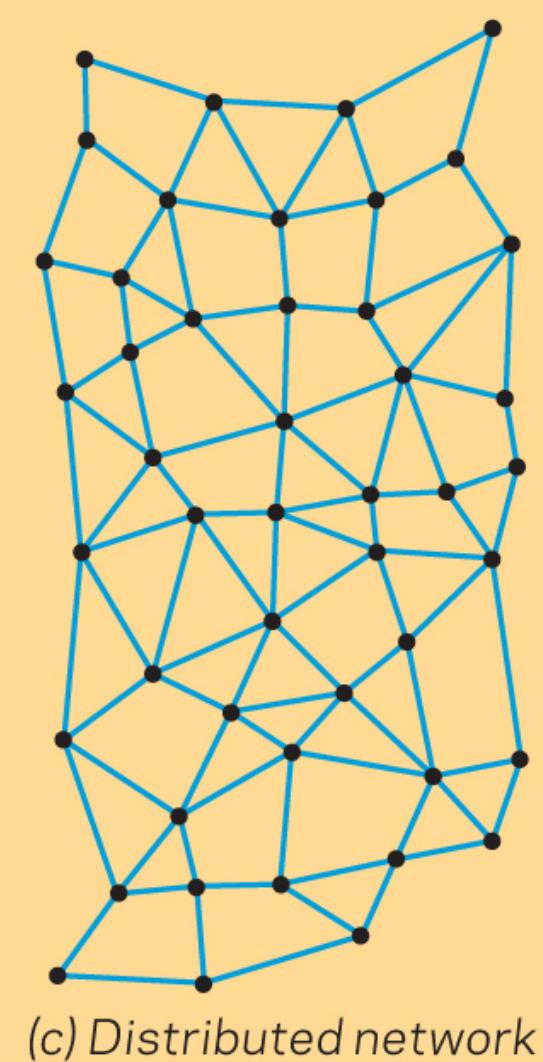
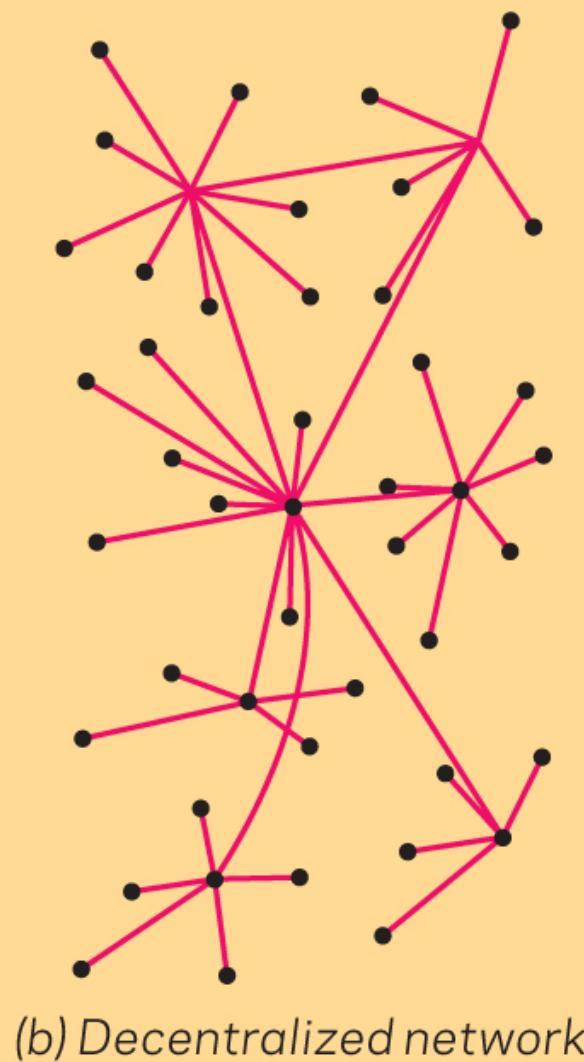
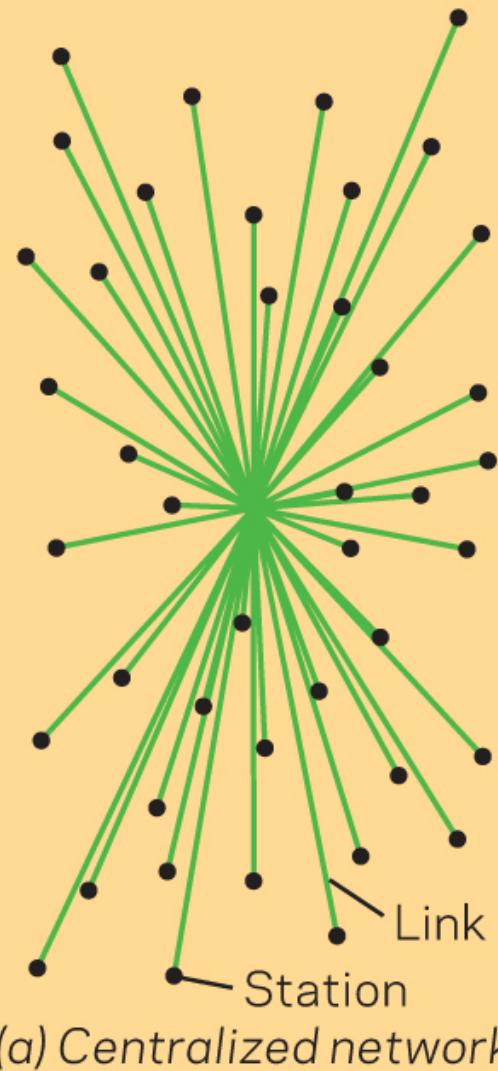


Web 3.0

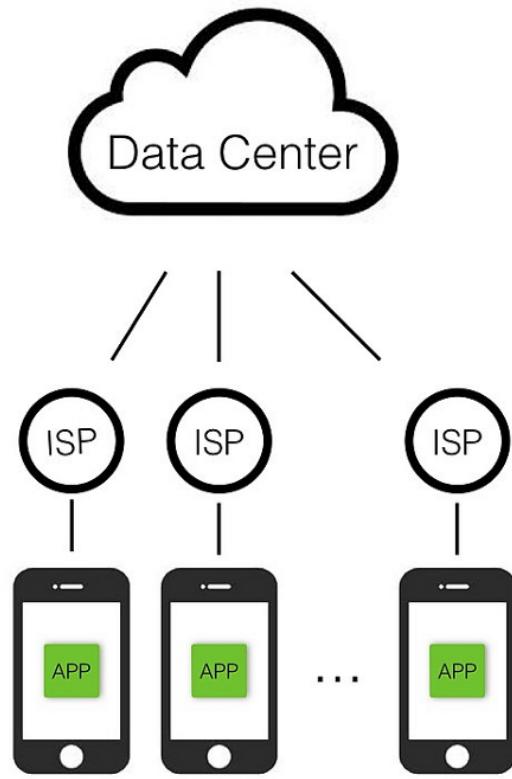


# DApps

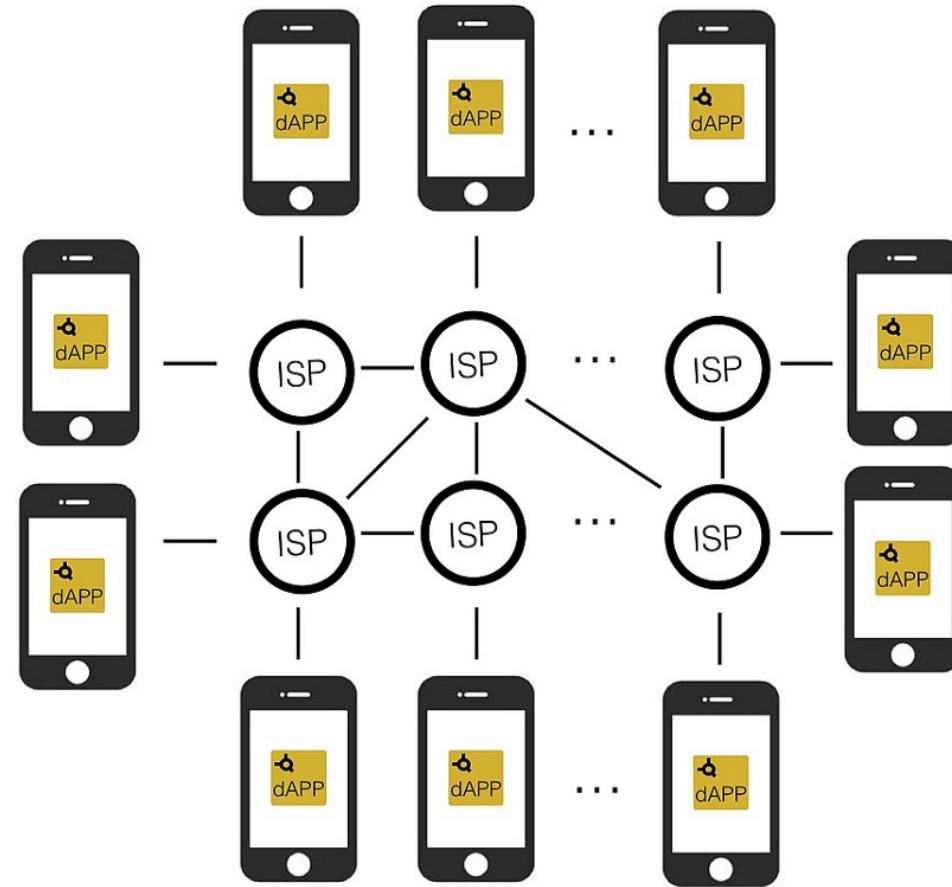


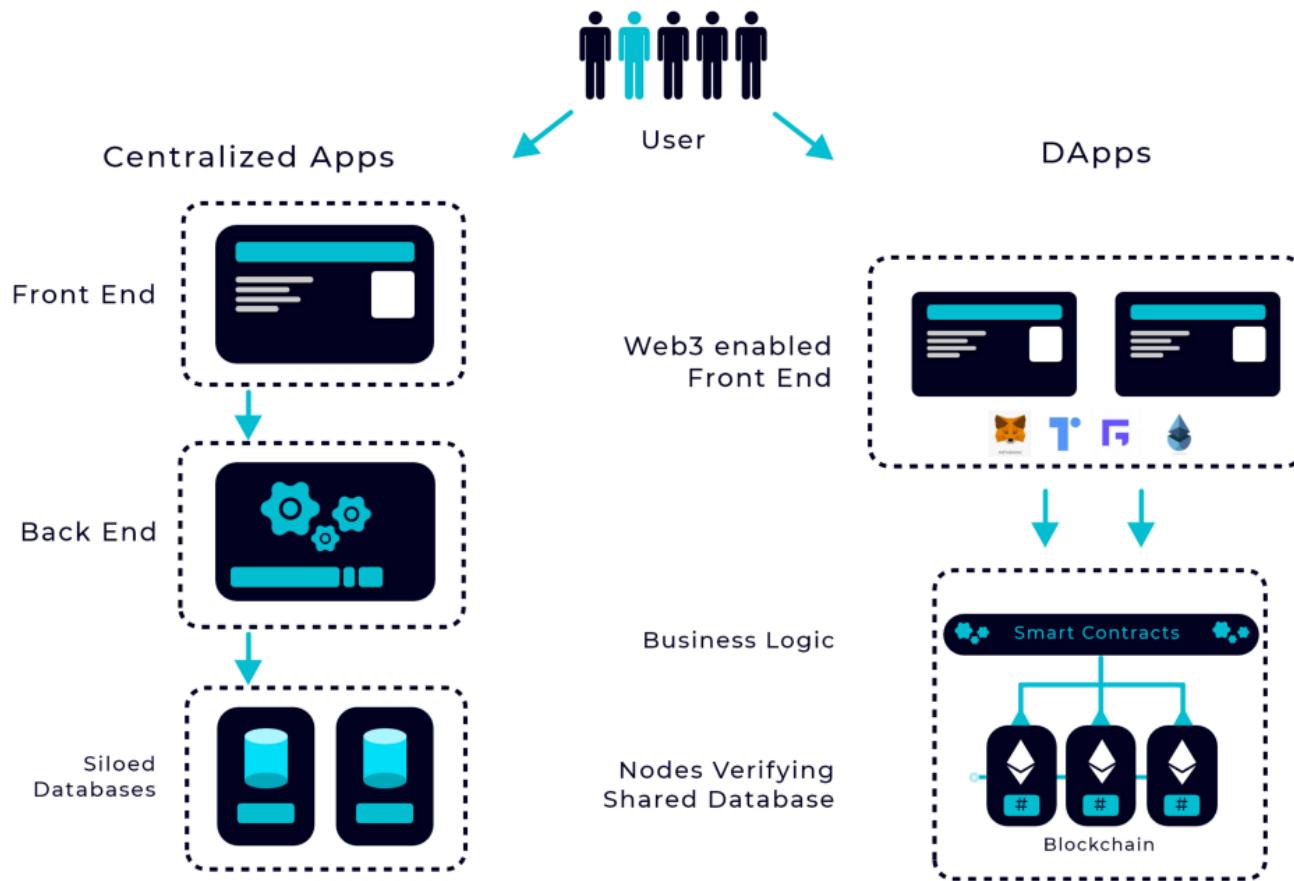


# Apps



# dApps

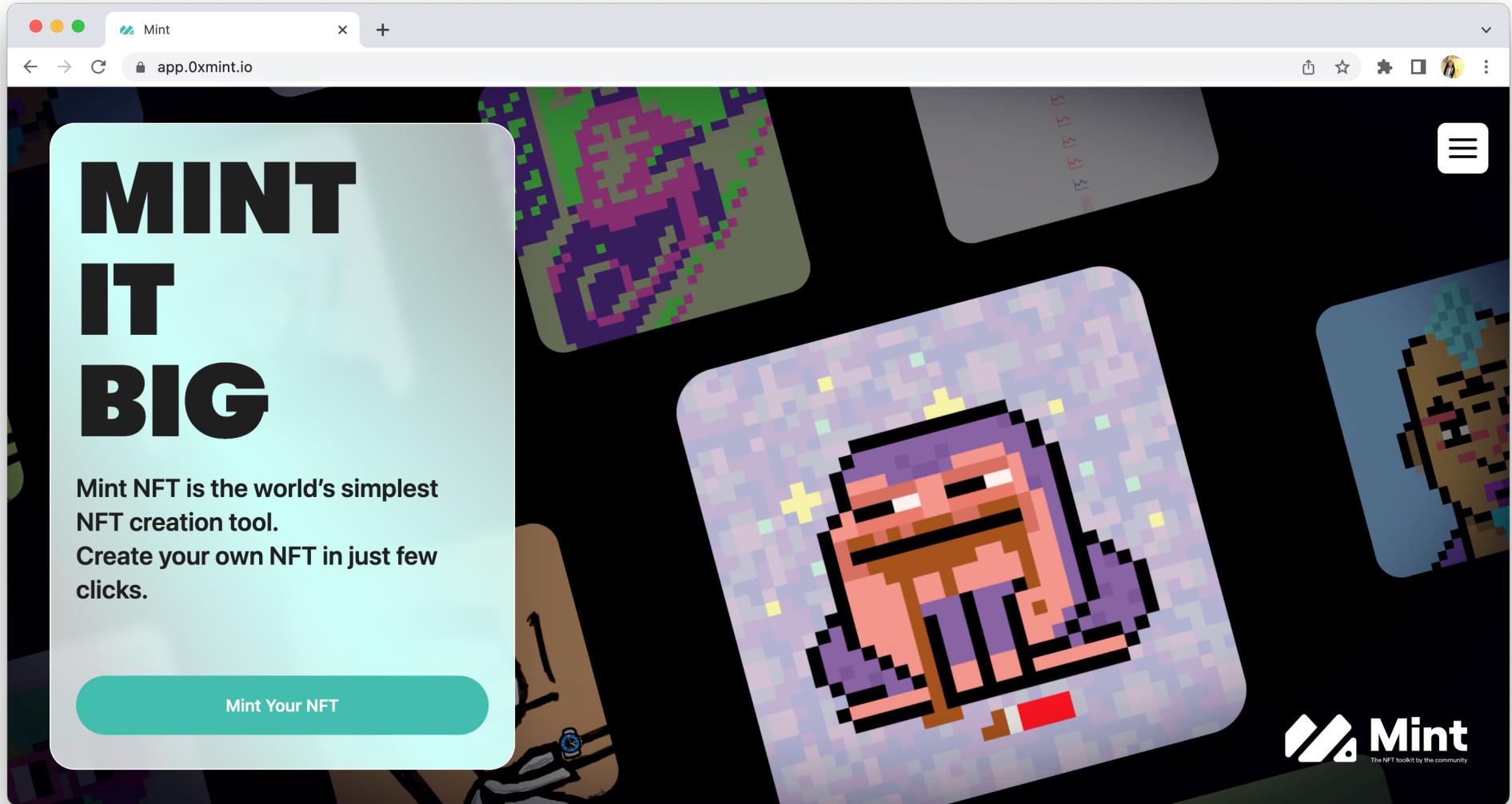




Prone to Attacks, Frauds and  
Central Point of Failure

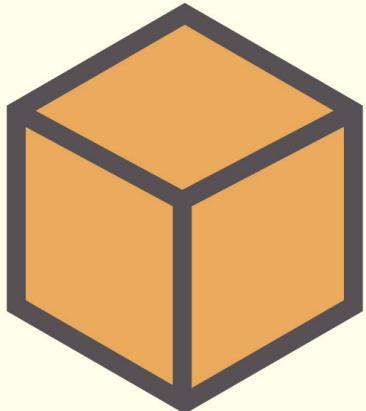
Security by Cryptography, and  
no Central Point of Failure

# Примеры



# Блокчейн

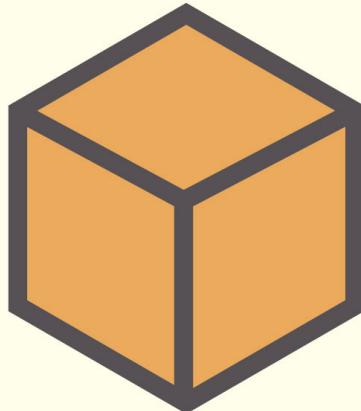
# Block 1



Hash: **6U9P2**

Previous Hash: **0000**

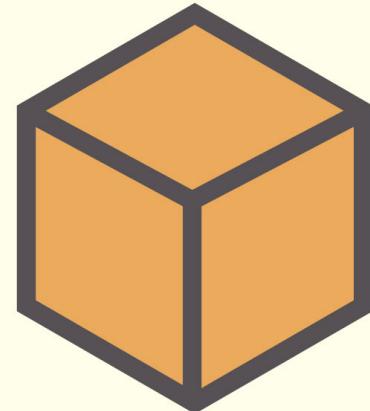
# Block 2



Hash: **8Y5C9**

Previous Hash: **6U9P2**

# Block 3

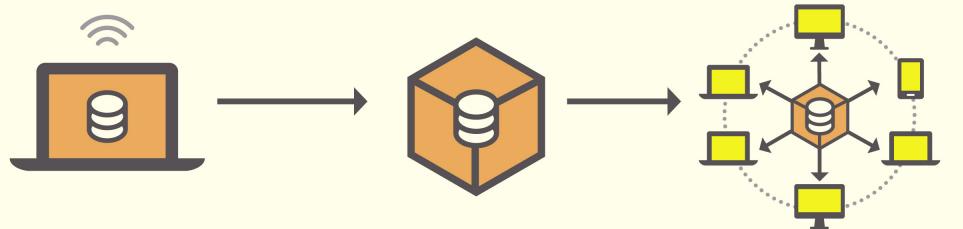


Hash: **9I4z1**

Previous Hash: **8Y5C9**

# Blockchain Process

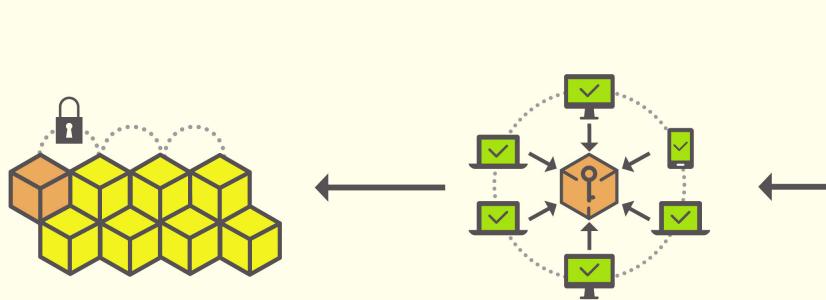
---



New data  
(e.g. a transaction)  
is entered into the  
blockchain.

A block  
representing this  
data is created.

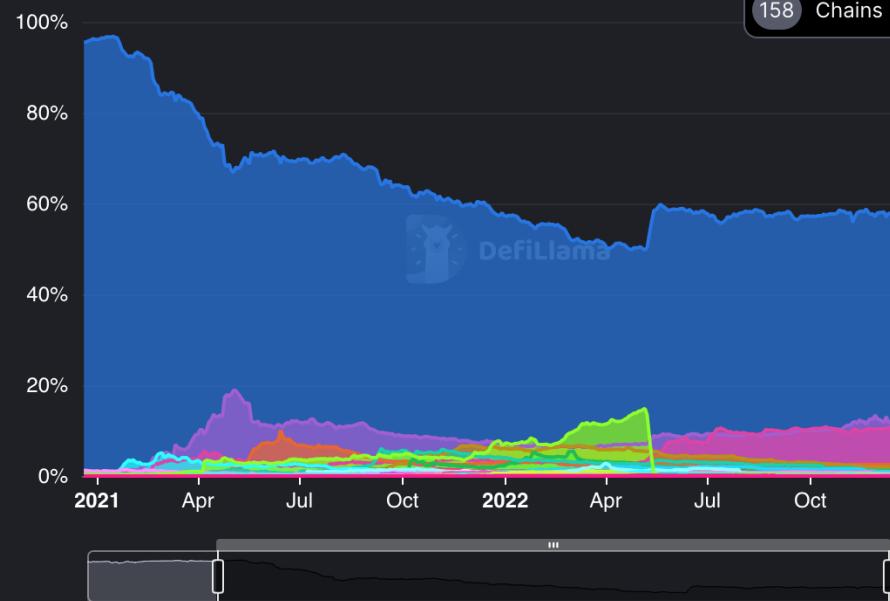
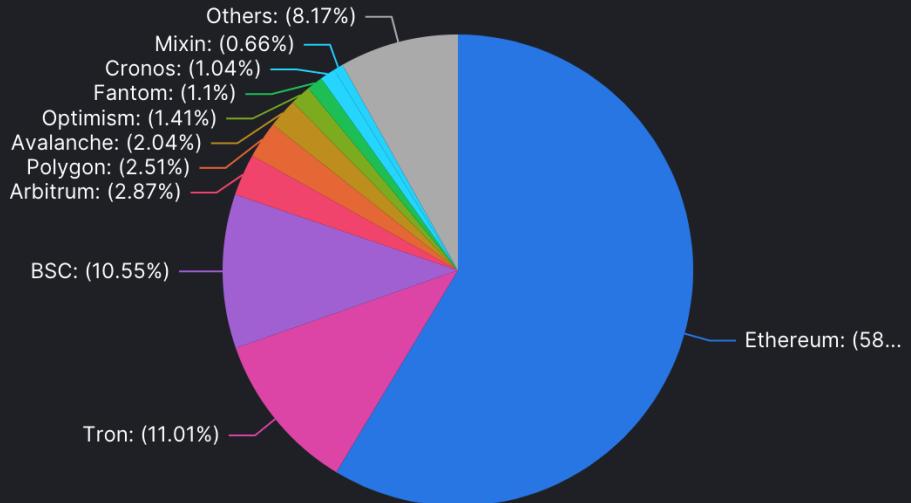
The block is  
broadcast to all  
the nodes in the  
blockchain network.



If approved, the new  
block is added to the  
chain permanently.

Each node (participant)  
chooses to approve or deny  
the new block.

## Total Value Locked All Chains

[Download all data in .csv](#)

Total Value Locked (USD)

**\$39.77b**



Change (24h)

**0.15%**

MakerDAO Dominance

**14.96%**

Total TVL

**\$39.77b +0.15%**



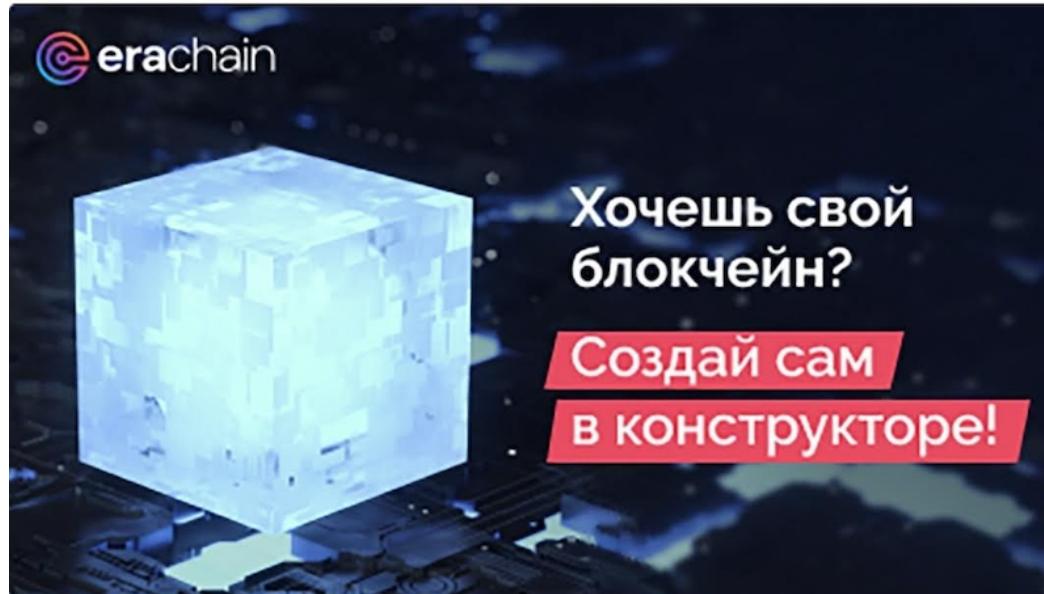


Erachain

Реклама · launcher.erachain.ru



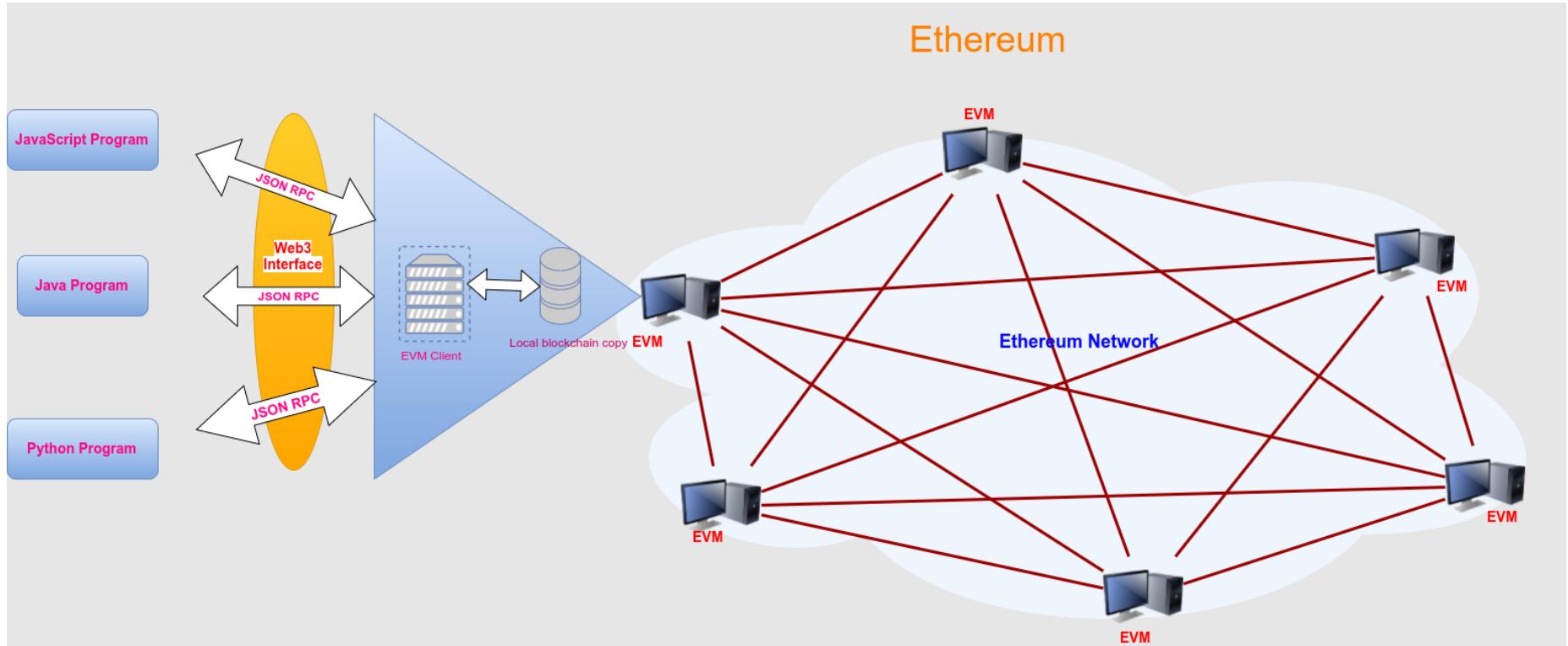
Создай смарт-блокчейн с готовыми dApps без  
разработки!  
Техподдержка. Бесплатная консультац



Создай свой блокчейн  
[launcher.erachain.ru](http://launcher.erachain.ru)

В магазин

# Node Provider



# Web3 as a service



## ◊ Infura Web3 API

The Infura Web3 API provides instant access to Ethereum, Polygon, Arbitrum, Optimism, and more over HTTPS and WebSockets. Our goal is to provide the most accessible and reliable Web3 connection for developers, freeing you up to spend less time on infrastructure, and more time building great software. Infrastructure for your Web3 app has never been easier.

[MORE ABOUT OUR ETHEREUM API →](#)

### Core

#### Free

- ✓ 100,000 Total Requests/Day

Includes up to 25,000 Ethereum Mainnet Archive Requests/Day

### Developer

\$50/mo

- ✓ 200,000 Total Requests/Day

Includes up to 100,000 Ethereum Mainnet Archive Requests/Day

- ✓ Direct Customer Support

### Team

\$225/mo

- ✓ 1,000,000 Total Requests/Day

Includes up to 1,000,000 Ethereum Mainnet Archive Requests/Day

- ✓ Direct Customer Support

### Growth

\$1000/mo

- ✓ 5,000,000 Total Requests/Day

Includes up to 5,000,000 Ethereum Mainnet Archive Requests/Day

- ✓ Direct Customer Support

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designed for you**

With our new plans, Web3 builders get access to the entire QuickNode platform — all chains, recent and historical data, NFT API's, trace, debug & more — and only pay for what they use.

Plan	API Credits*	Price
<b>Discover</b>	10 Million API Credits*	Free monthly
<b>Build</b>	20 Million API Credits*	\$49 monthly
<b>Scale</b>	120 Million API Credits*	\$299 monthly

**Discover**

Interact with our powerful api's for free with our Discover Plan. Great for tinkerers, traders, or anyone learning web3.

✗ Auto Scaling

**Build** Most Popular

This plan is the starting point for businesses. All of our features plus auto-scaling to grow as your business grows.

✓ Auto Scaling at \$20 /additional million

**Scale**

Scale offers the best in class performance, global distribution, and hyper scale for your high performance workloads.

✓ Auto Scaling at \$10 /additional million



# Фронтенд

# MetaMask

The crypto wallet for DeFi, Web 3.0

metamask.io

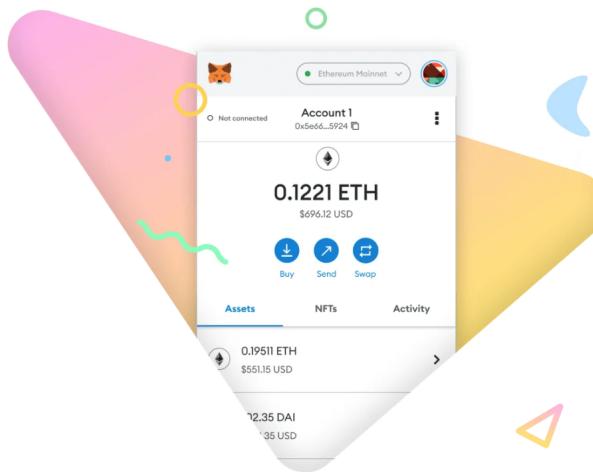
 METAMASK

Features ▾ Build ▾ Resources ▾ Learn Download

# A crypto wallet & gateway to blockchain apps

Start exploring blockchain applications in seconds. Trusted by over 30 million users worldwide.

Download for 



LEARN MORE



Ethereum Mainnet ▾



## < Networks



A malicious network provider can lie about the state of the blockchain and record your network activity. Only add custom networks you trust.

Network Name

HardhatNetwork

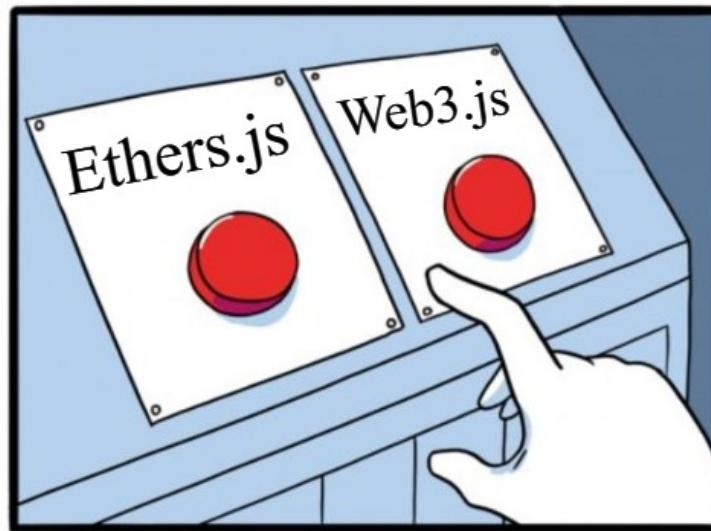
New RPC URL

http://127.0.0.1:8545/

Chain ID ⓘ

31337

Currency Symbol (optional)



web3/web3.js: Ethereum JavaScript API

github.com/web3/web3.js

☰ README.md



# web3.js - Ethereum JavaScript API

downloads 2.7M/month jsDelivr 8M hits/month Discord 1113 online web3js stackexchange npm v1.8.1 Build passing  
coverage 80% maintained with lerna netlify Success GitPOAPs 44 Web3.js 1.8k

**Web3.js 4.x** has been released. Checkout 4.x [API documentation and migration guide](#) for testing, early feedback and contributions.

This is the Ethereum [JavaScript API](#) which connects to the [Generic JSON-RPC spec](#).

You need to run a local or remote [Ethereum node](#) to use this library.

Please read the [documentation](#) for more.

## Installation

You can install the package either using [NPM](#) or using [Yarn](#)

# web3/web3.js

```
01. const Web3 = require('web3');  
02. const web3 = new Web3('ws://localhost:8546');  
03. ....  
04. web3.eth.getAccounts().then(console.log);
```

# web3/web3.js

```
01. const Web3 = require('web3')

02. const rpcURL = '' // Your RPC URL goes here

03. const web3 = new Web3(rpcURL)

04. const address = '' // Your account address goes here

05.

06. web3.eth.getBalance(address, (err, wei) => {
07.   balance = web3.utils.fromWei(wei, 'ether')
08. })
```

# Тестирование

**Нужен тестовый  
стенд**

# Транзакции платные

Blockchain	Type	Token	Gas Used	Gas Used	Gas Current Cost
 Ethereum <a href="https://ethereum.org/">https://ethereum.org/</a>	Layer 1	ETH 1824.17 USD	84904	Standard 35	<b>5.4208 USD</b>
 Arbitrum One <a href="https://offchainlabs.com/">https://offchainlabs.com/</a>	Layer 2	ETH 1824.17 USD	84904	Standard 0.1	<b>0.0155 USD</b>
 Optimism <a href="https://optimism.io/">https://optimism.io/</a>	Layer 2	ETH 1824.17 USD	84904	Standard 0.1	<b>0.0155 USD</b>
 Binance Smart Chain <a href="https://www.binance.org/en/smartChain">https://www.binance.org/en/smartChain</a>	Sidechain	BNB 329.94 USD	84904	Standard 3	<b>0.0840 USD</b>
 Avalanche <a href="https://www.avax.network/">https://www.avax.network/</a>	Sidechain	AVAX 17.08 USD	84904	Standard 31	<b>0.0450 USD</b>
 Polygon <a href="https://hermez.io/">https://hermez.io/</a>	Sidechain	MATIC 0.971332 USD	84904	Standard 312	<b>0.0257 USD</b>
 Gnosis <a href="https://www.xdaichain.com/">https://www.xdaichain.com/</a>	Sidechain	XDAI 1.009 USD	84904	Standard 3	<b>0.0003 USD</b>
 Celo <a href="https://celo.org/">https://celo.org/</a>	Sidechain	CELO 0.590495 USD	84904	Standard 1	<b>0.0001 USD</b>

Hardhat | Ethereum development environment for professionals

Join the Hardhat team! Nomic Foundation is hiring

Home Tools Plugins Documentation Tutorial

Flexible. Extensible. Fast.

# Ethereum development environment for professionals

Get started



# Hardhat

01. `mkdir my-smart-contract`
02. `cd my-smart-contract`
03. `npm init`
04. `npm install --save-dev hardhat`

# Hardhat

01. npx hardhat

02.

03. ? What do you want to do? ...

04. › Create a JavaScript project

05. Create a TypeScript project

06. Create an empty hardhat.config.js

07. Quit

# Hardhat

```
01. $ npx hardhat node
```

```
02. Started HTTP and WebSocket JSON-RPC server at http://127.0.0.1:8545/
```

# Включи Web3 в своём фронтенде

# Спасибо за внимание! Есть вопросы?

- 🧑 Алексей Авдеев
- 🌐 [github.com/avdeev](https://github.com/avdeev)
- 🌐 [twitter.com/avdeev\\_alexey](https://twitter.com/avdeev_alexey)
- 🌐 [vk.com/alexey.avdeev](https://vk.com/alexey.avdeev)
- 🌐 Продуктовая лаборатория [Mish](#)



Оцените доклад