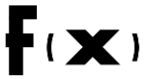
Democratize Software with Web 3.0

ox + p2p apps

Functionland



Functionland - Team

Keyvan M. Sadeghi

9 years in executive tech positions
Open-source veteran

MSc. Artificial Intelligence,
University of Southampton

Ehsan Shariati

Former Software Lead at L'Oreal
User Experience specialist

MSc. Electrical and Computer Eng.,
University of Colorado Boulder

Ehsan Emami

Sr. Development Engineer at Amazon
Hardware specialist

MSc. Electrical and Computer Eng.,
University of Waterloo

Status quo

Google’s mission:

> ” Organize the world’s information and make it universally accessible and useful.

Both noble and humble.

Let’s put it to a test, shall we?

Something easy, review of a website on YouTube.

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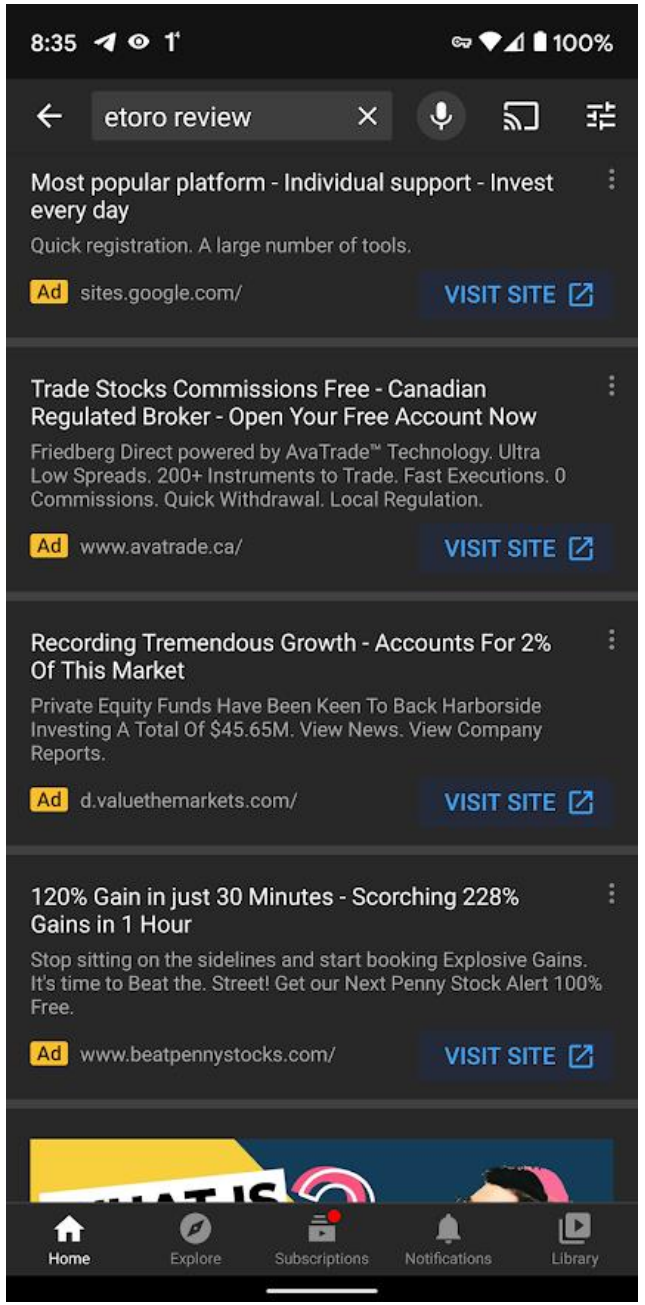


Status quo

No information whatsoever on the first page.

Just Ads!

What happened? Where's my accessible and useful?

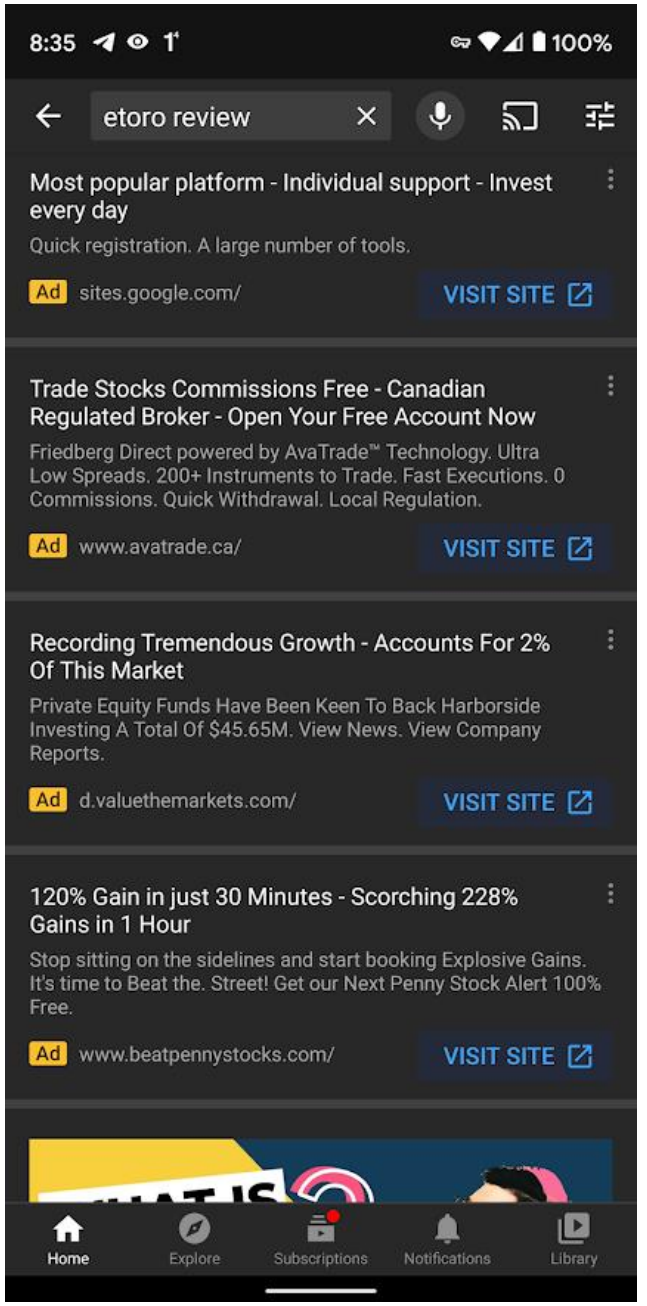
> " Maximizing Shareholder Value

This is new, Google ads used to be very small links next to your email.

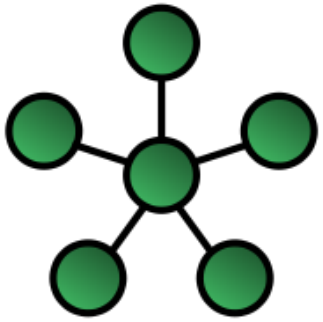
It's not their fault, really,

they used to be not evil! [1]

[1] Google removed "don't be evil" from company's code of conduct in May 2018



What went wrong? (History)

Star topology  was adopted as

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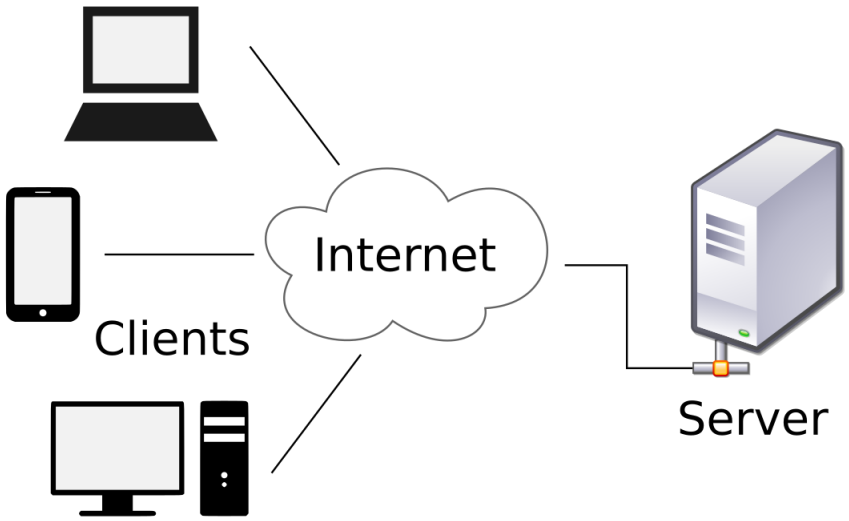

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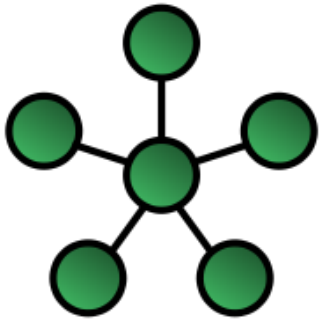
Star topology  was adopted as

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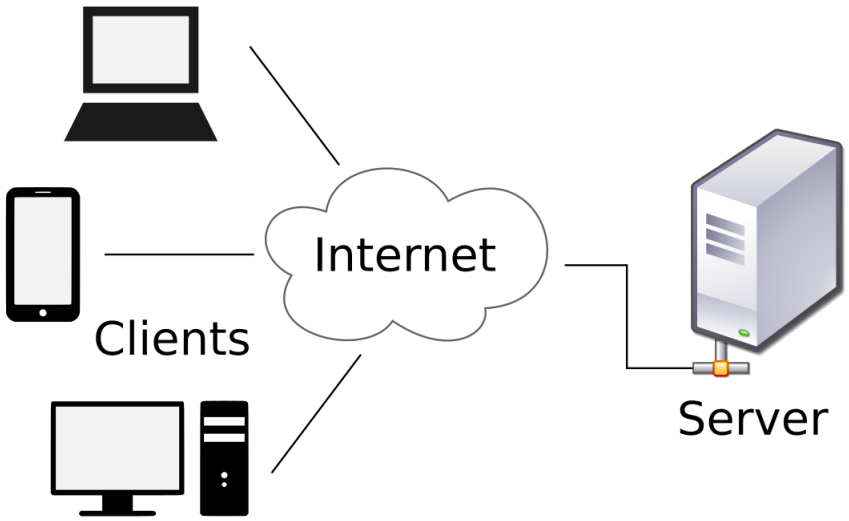
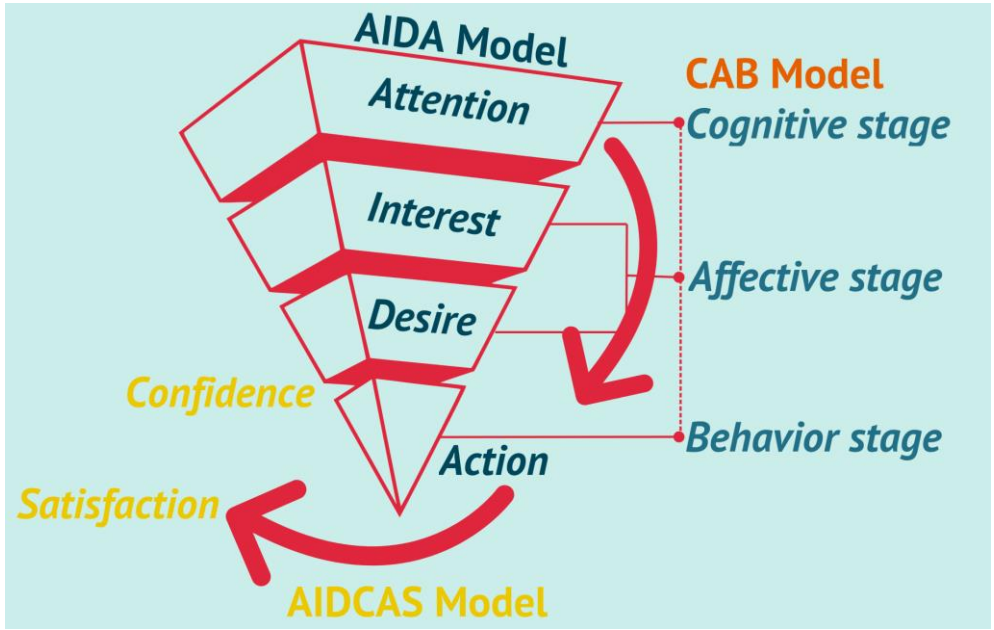


For **business model**,



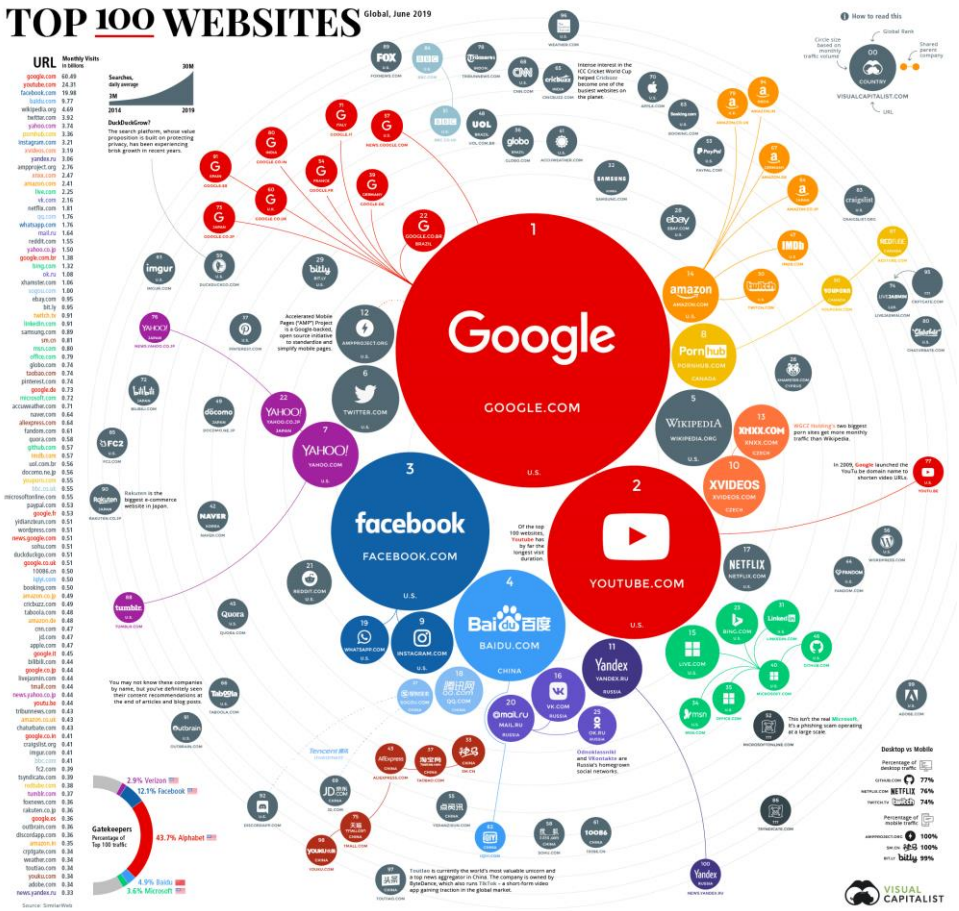
what later became the Big Tech, decided to resort to techniques from the 19th century! [2]

[2] "Side Talks about Advertising," *The Western Druggist,* Vol. 21, February 1899, p. 65-66

What went wrong? (History)

By design, this has resulted in:

the Web becoming a bunch of monopolies,



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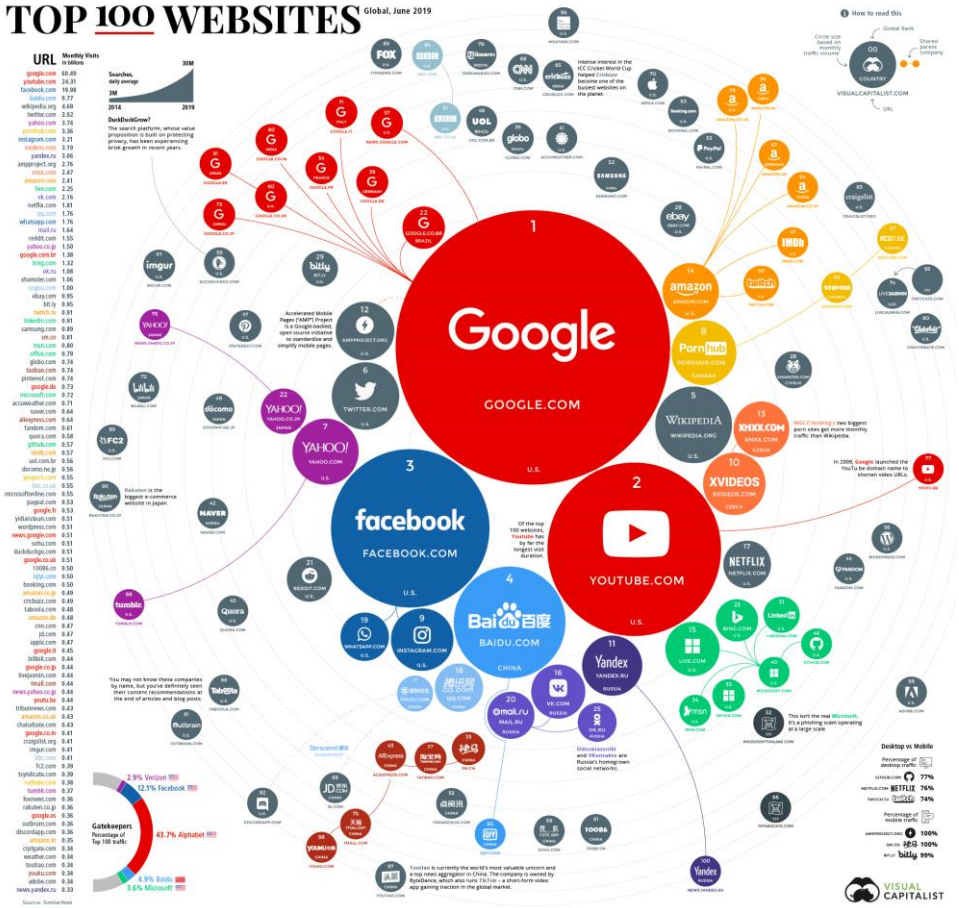
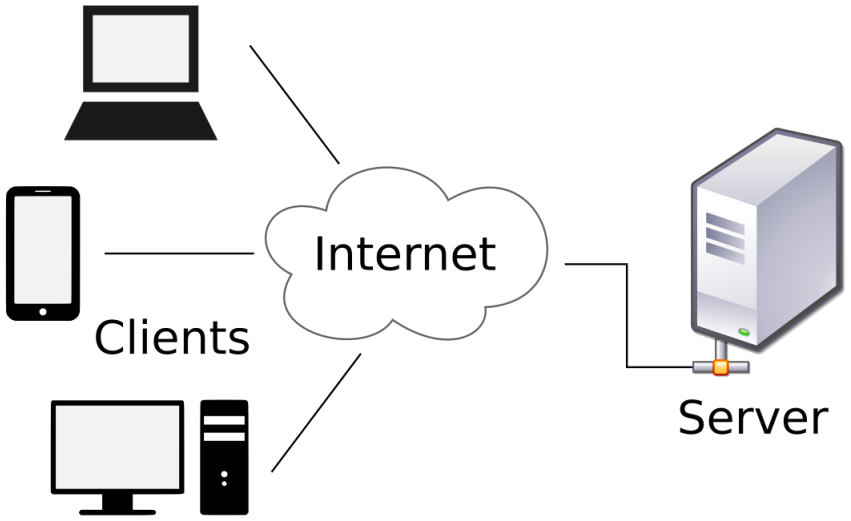


and us becoming sleepless goldfish!

What went wrong? (History)

What makes the current Web centralized?



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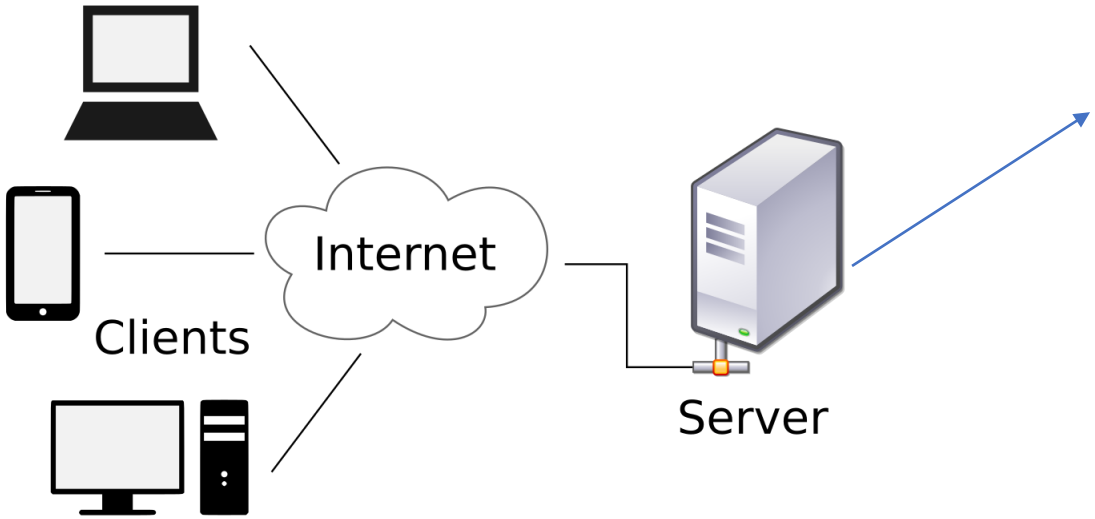


Server is where our data is kept

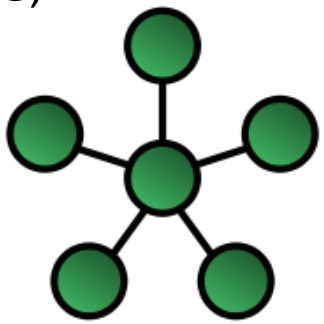
It's physically residing at Google, etc.

Emergence of evil is inevitable when they have all our data

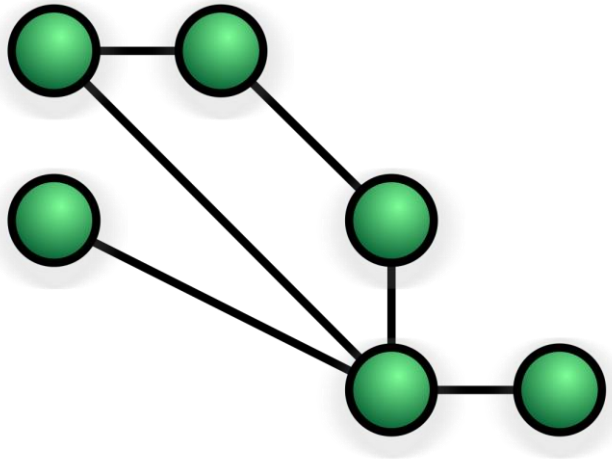
How to fix it?

For the architecture,

We can replace Star



With Mesh:



How to fix it?

That gives us Web 3.0,

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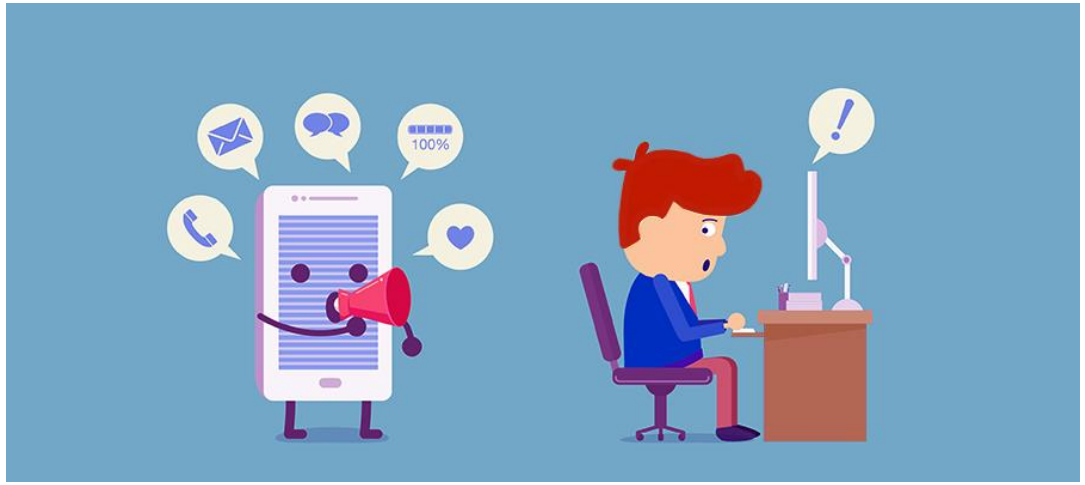
Instead of attention,
which is a key element in functional human beings,



we can consume something else to feed the beast!

How to fix it?

That gives us Web 3.0,

aka the decentralized Web.

Something like electricity!

We don’t need to sacrifice people to generate more of it.

Solution

- Web 3.0 software stack has come a long way
- The movement started as decentralized money (Bitcoin)
- But quickly became decentralized data structures

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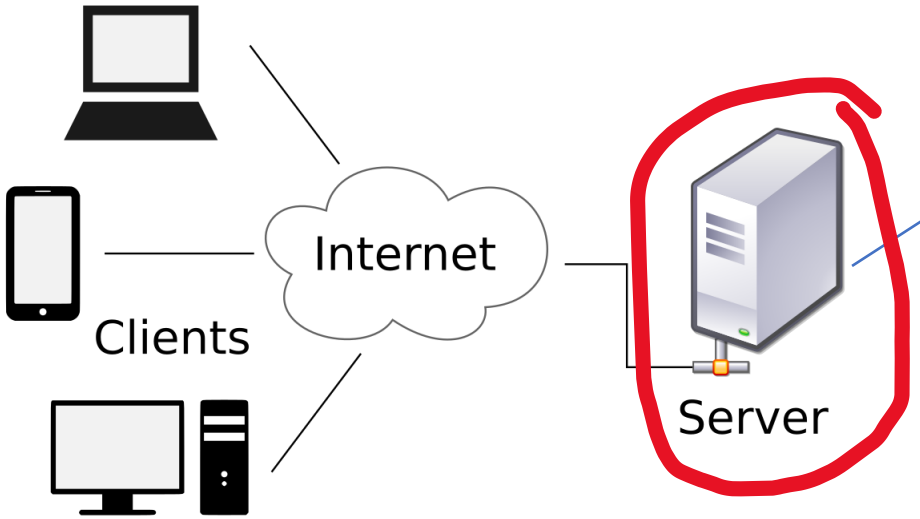
- The movement started as decentralized money (Bitcoin)
- But quickly became decentralized data structures

- The technology is here!
- The User Experience is not

Solution

The missing piece in the puzzle is not software, it's Hardware!



Server is where our data is kept

" **#ItsMyData** !

We need an alternative for the source of centralization!

Evil won't perish until we take back control of our own data

Solution

- We can move the server to our homes, a “Personal Server”

- But we lose the Cloud! What if a fire destroys my server?

- Have another server at parents’? The data syncs up

- Still not enough guarantee, I should *never* lose my passwords!

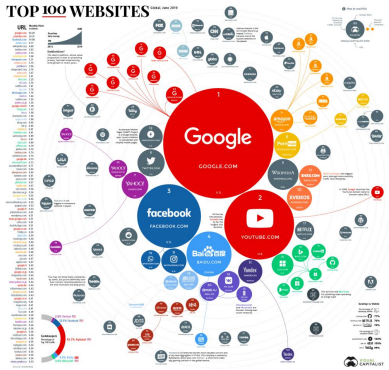
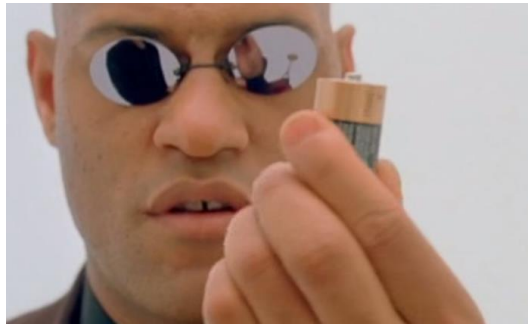
- That data can still be secured in other places, e.g. with Filecoin

- So there will be monthly charges for a password manager?

- How about we let the server pay for all your apps, by doing computations?

Solution

This solution moves us from:

Architecture	Economics
Centralized 	Attention based
Decentralized	Electricity based 

User Experience

HW + SW

box

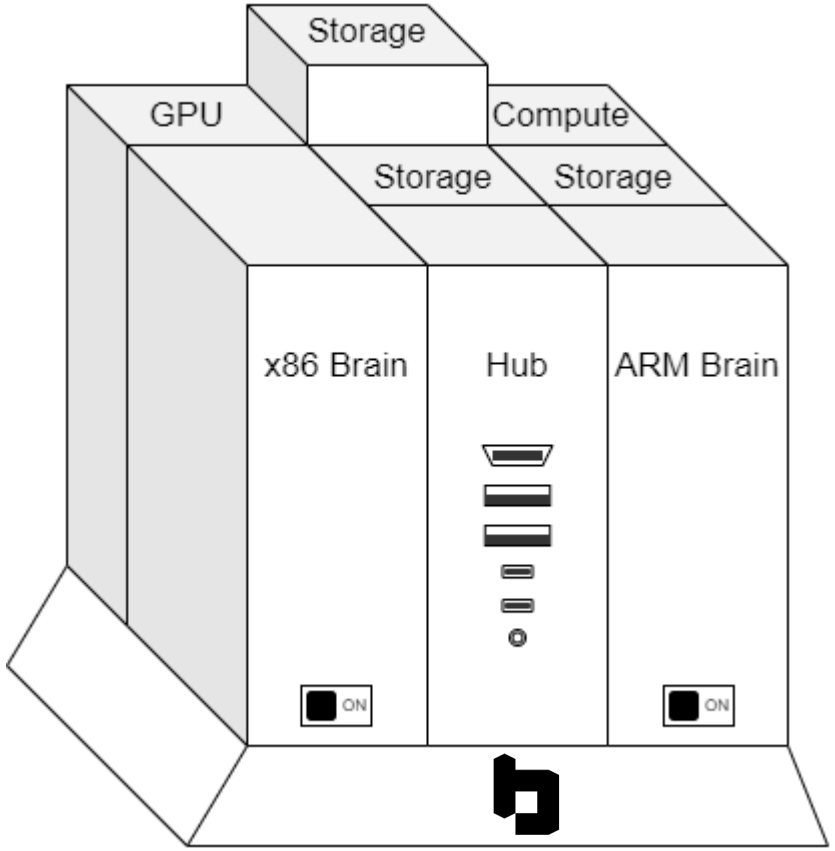
"box" is a new form factor

for Personal Servers

As a gadget, box has

three distinctive properties:

- Stationary
- Plug and Play
- Composable



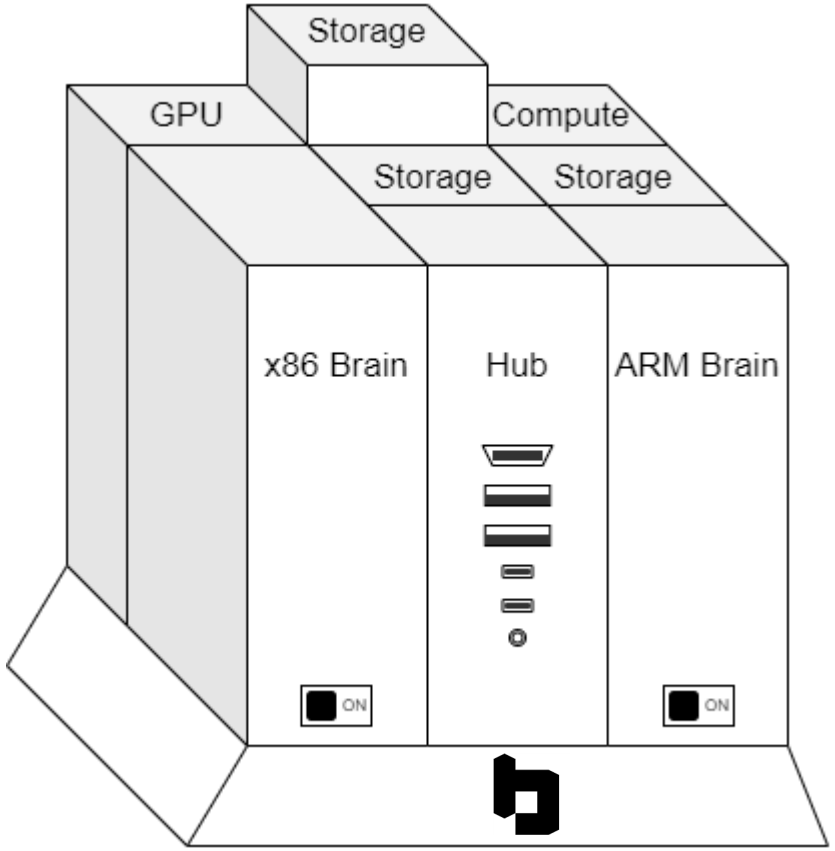
OX

Stationary

Sits still at home next to the net connection

Compared to a smartphone, box’s design doesn't need to keep tabs on:

- Battery consumption
- Pocketable size
- Safekeeping



Plug and Play

There’s box the gadget, and box the server software

- Any home computer can be converted to a box by installing the software

The gadget is designed for the non-tech-savvy consumers

It requires zero config for setting up, updates OTA

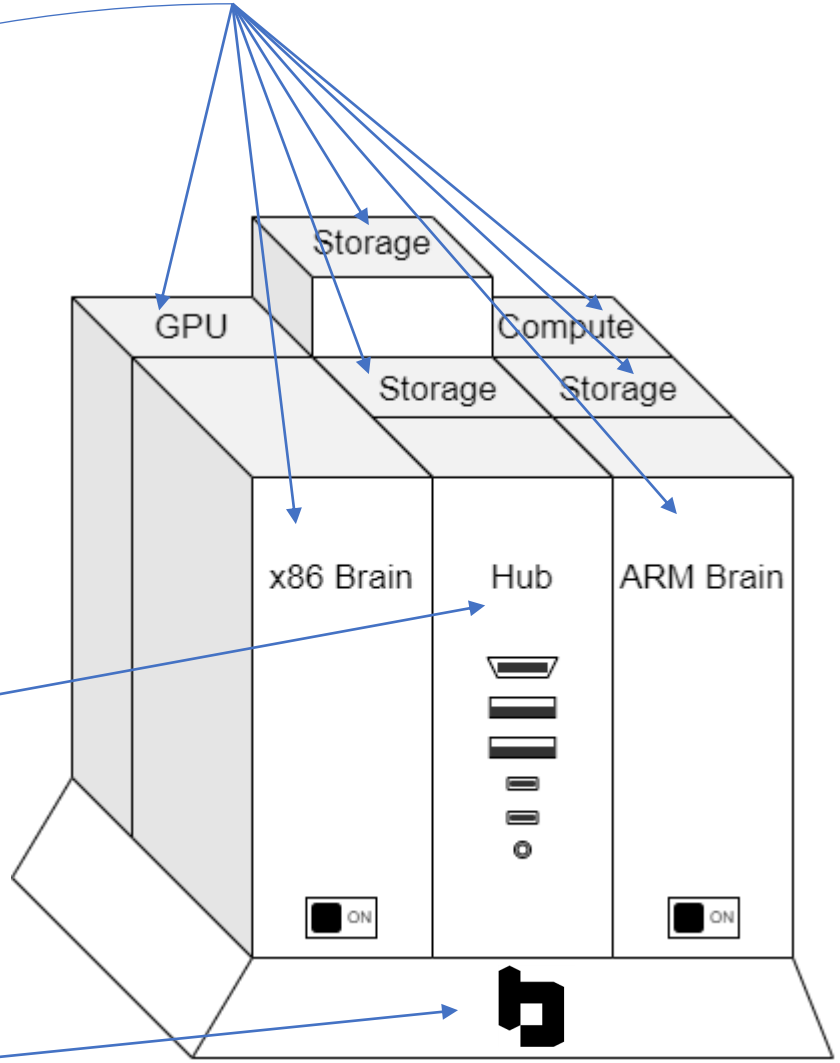
OX

Composable

Consisting of up to 8 nodes

a hub

and a base



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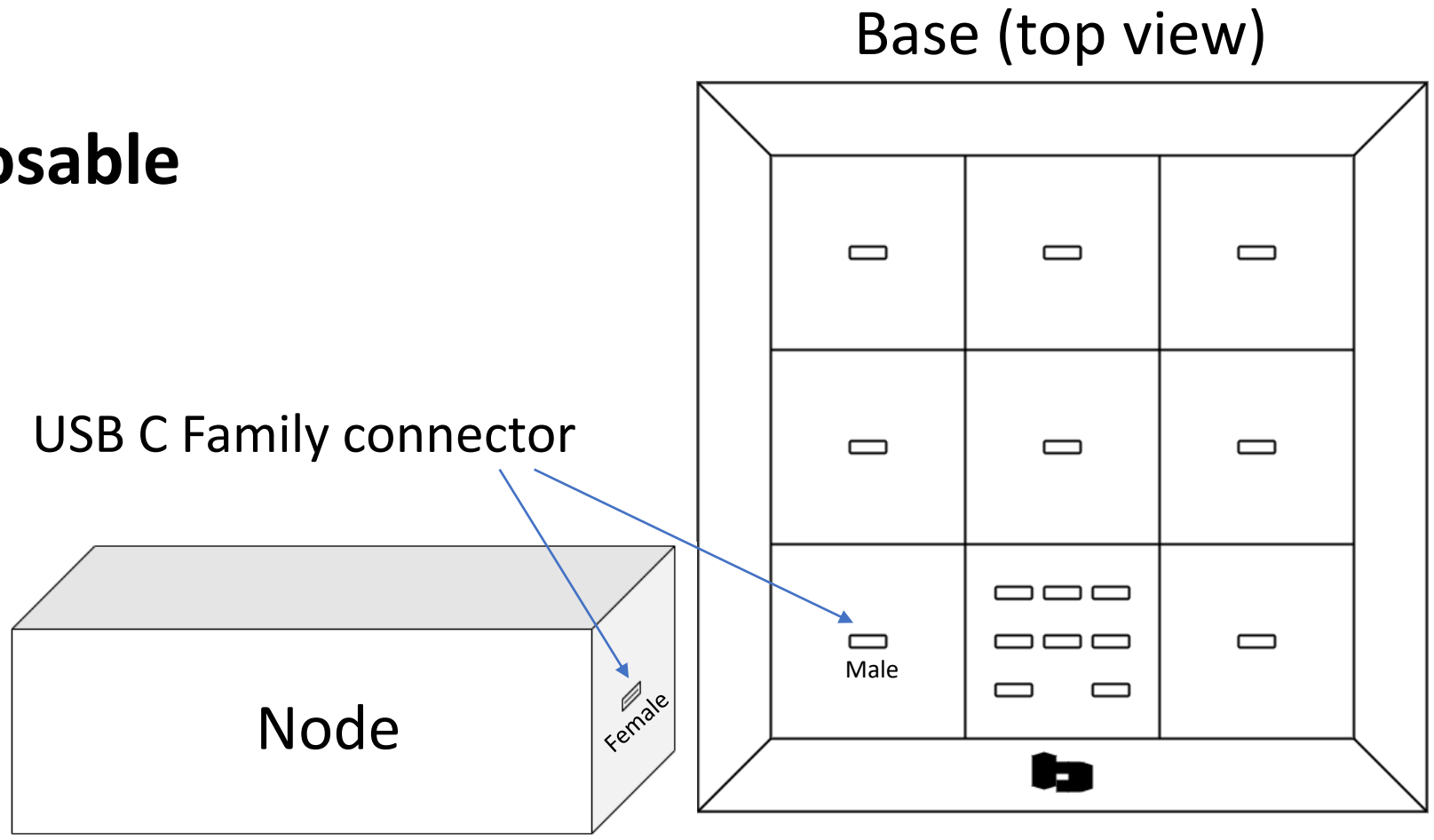


OX

Composable

Each box can be customized by the selection of nodes

One box can be configured for maximum data storage, another can target coin mining by having multiple GPUs

Composable

“BoxOS” is a universal interface

- Different boxes can talk over the network since they expose the same software interface
- This distinguishes a box from traditional desktop workstations

BoxOS is not a standalone operating system

- It’s the server software running on top of a Linux (through Docker)

P2P Apps

A new generation of apps with distributed backends!

[Introduction Blog]

Managed Services

File Protocol

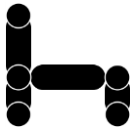
Data Protocol

AI Protocol (upcoming)

P2P Apps

Planned initial apps:

An alternative to Google and Apple photo services



A chat and social sharing platform

Unnamed App Store

Medium of downloading and updating new apps over blockchain, providing financial aid to OSS

Thanks for your attention!

With 💔, Functionland