



IPFS BING  
2022

# IPFS and Content Discovery

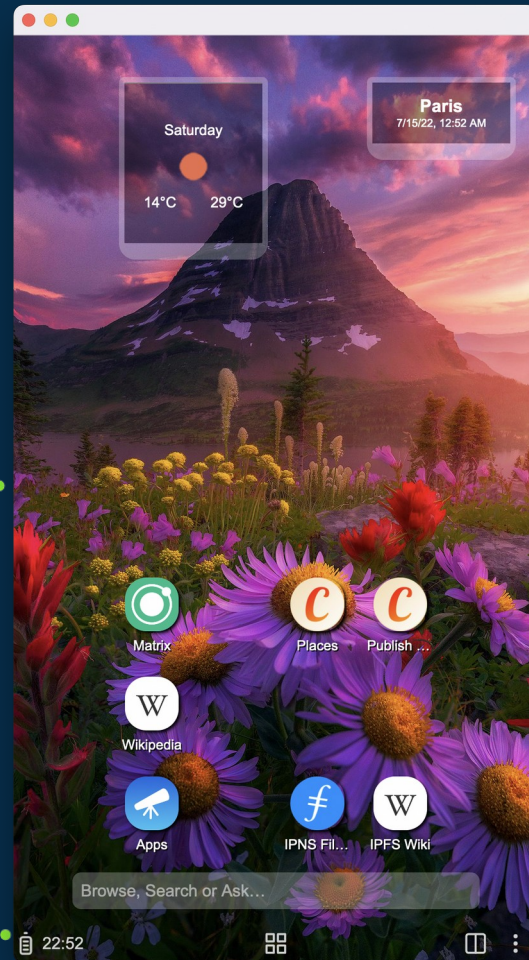
2022.06.15 - [fabrice@capylon.org](mailto:fabrice@capylon.org)



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**Context: Capyloon,  
A user centric mobile  
Web OS and a vehicle to  
experiment with  
dWeb: IPFS, DID,  
UCAN...**

<https://capyloon.org>





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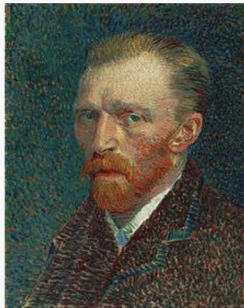
# Context: Capyloon, A user centric mobile Web OS and a vehicle to experiment with dWeb: IPFS, DID, UCAN...

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## Vincent van Gogh

*"Van Gogh" redirects here. For other uses, see [Van Gogh](#) (disambiguation).*

**Vincent Willem van Gogh**  
(Dutch: [ˈvɪnsent ˈvɪləm van ˈɔx]<sup>[[note](#)]</sup> 30 March 1853 – 29 July 1890) was a Dutch [Post-Impressionist](#) painter who is among the most famous and influential figures in the history of Western art. In just over a decade he created about 2100 artworks, including around 860 [oil paintings](#), most of them in the last two years of his life. They include [landscapes](#), [still lifes](#), [portraits](#) and [self-portraits](#), and are characterised by bold, symbolic colours, and dramatic, impulsive



Self-Portrait, 1887, [Art Institute of Chicago](#)

<b>Born</b>	Vincent Willem van Gogh 30 March 1853 <a href="#">Zundert</a> , Netherlands
<b>Died</b>	29 July 1890 (aged 37) <a href="#">Auvers-sur-Oise</a> , France

Vincent van Gogh

<ipfs://bafybeiemxf5abjwbikoz4mc3a3dla6ual3jsgpdr4cjr3>

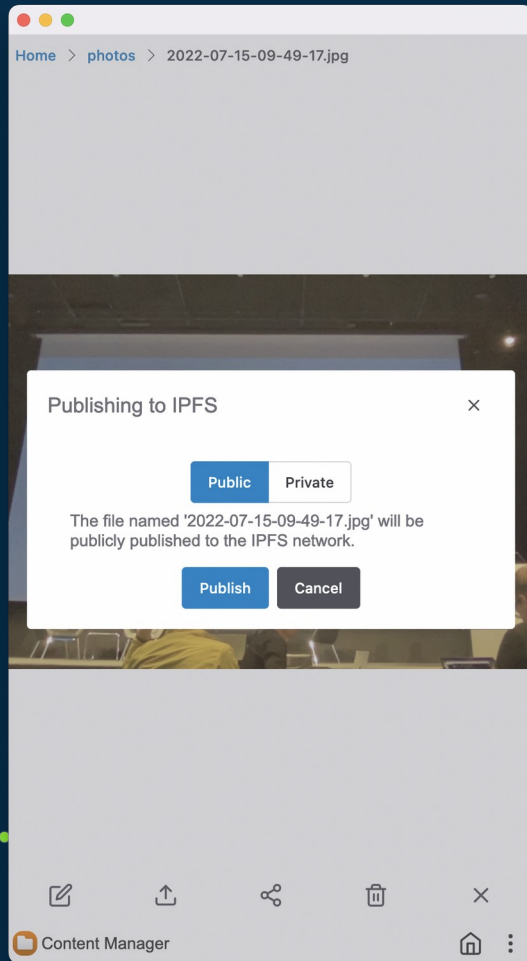
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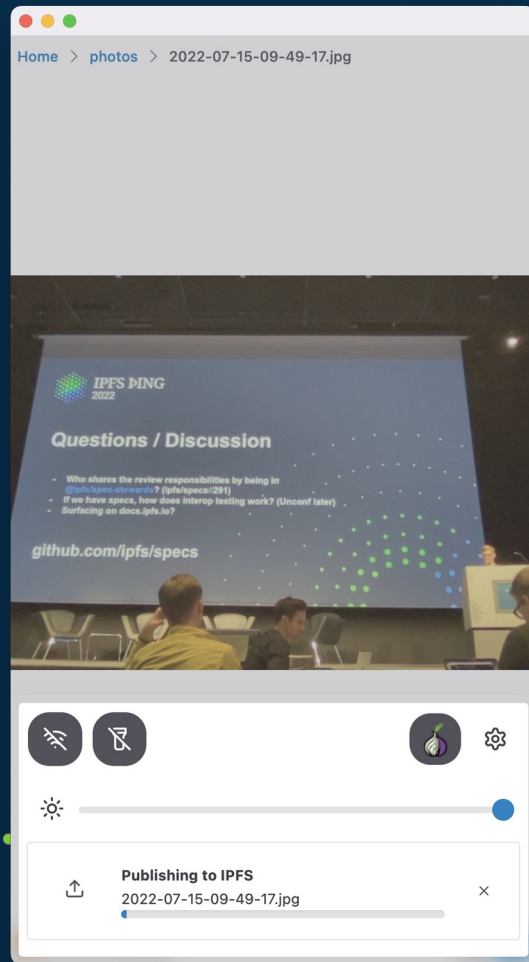




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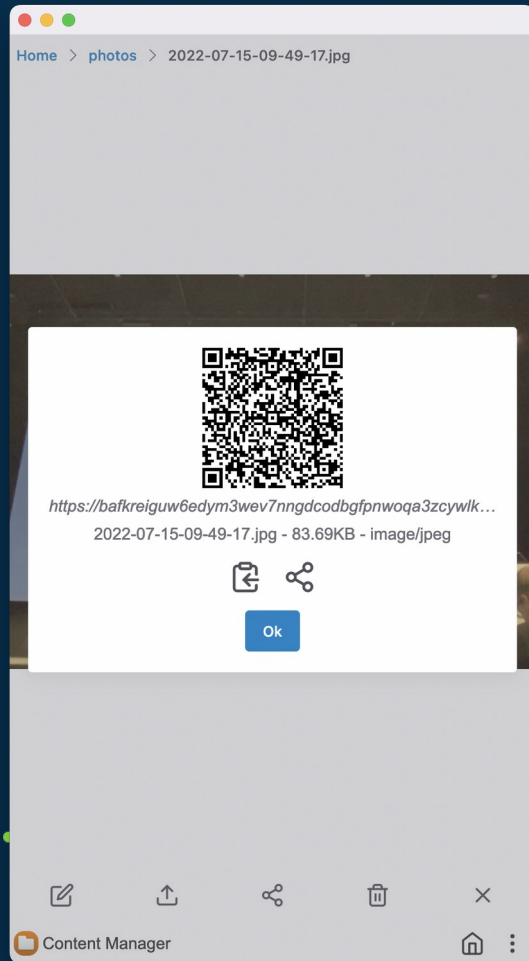




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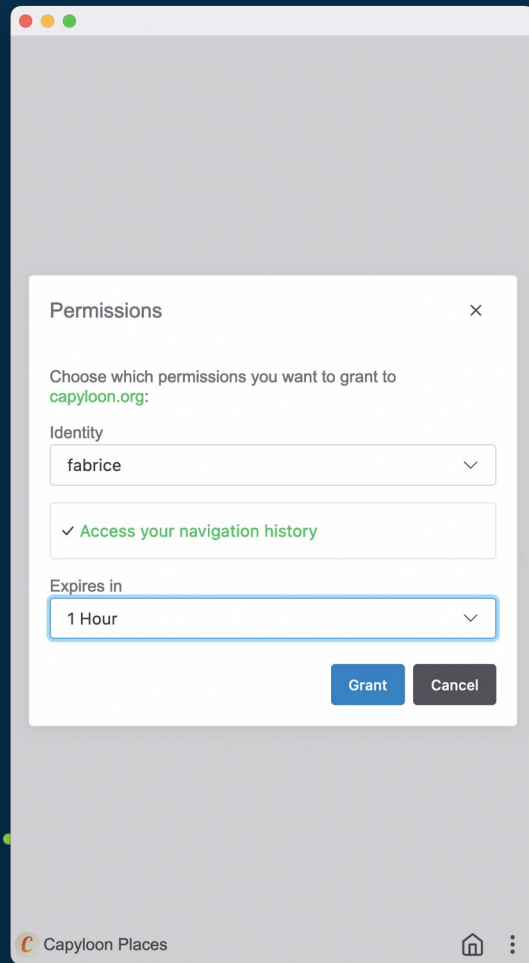




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# So you're building an App Store for Capyloon?





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# So you're building an App Store for Cappyloon?

**no.**



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## **App Stores in incumbent OSes fulfill multiple roles:**

1. Gatekeeping what can run on “your” device.



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## **App Stores in incumbent OSes fulfill multiple roles:**

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3. Application Distribution.



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## **App Stores in incumbent OSes fulfill multiple roles:**

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2. Application Discovery.
3. Application Distribution.
4. Revenue Channel.



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## **App Stores in incumbent OSes fulfill multiple roles:**

1. Gatekeeping what can run on “your” device.
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**All these functions are implemented in a way that benefit more the OS vendor than the end user!**



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## Native Stores: Gatekeeping Apps

- Single points of failures for devs → business risk, limited innovation.
- More or less arbitrary enforcement of official policies.
- Not a silver bullet to ensure quality / security.
- Perfect tool for censorship eg. at the country level.

**The real justification is that these platforms have not been designed to run untrusted code (forking Android won't help you there!).**



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## HTTP Web: Browsers happily render any web site

- Permission-less, instant updates.
- Didn't prevent "winner takes all" network effects where users have to give away control to big silos.





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## **dWeb: Browsers still happily render any web site**

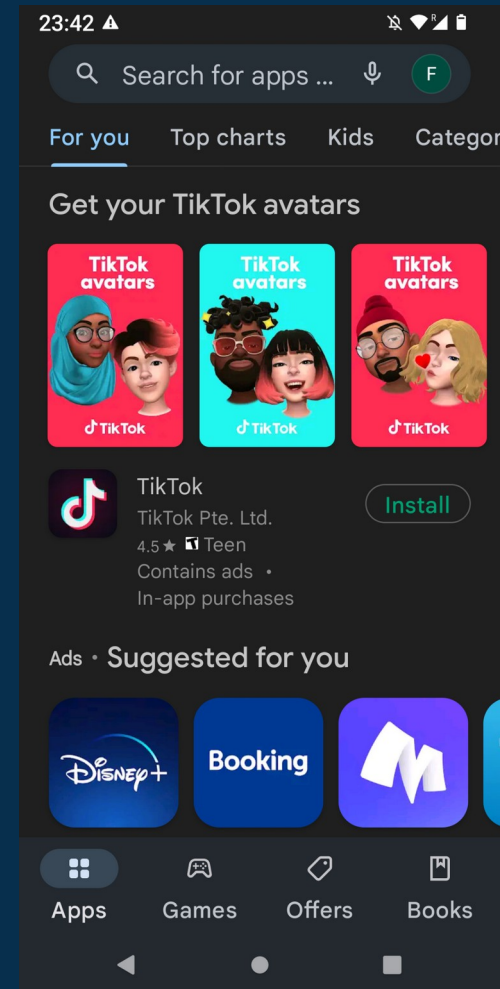
- Keep the link-ability of the web.
- Brings back capability to decouple data from computation.



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## Native Stores: App Discovery

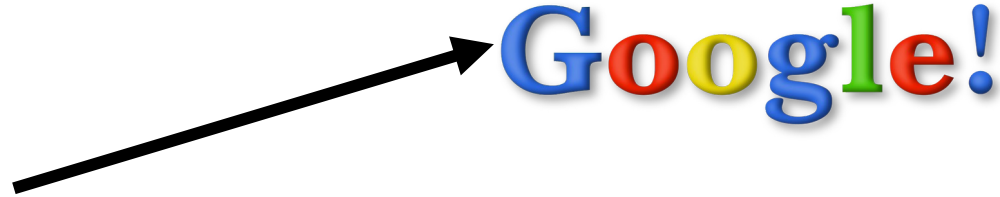
- Less and less organic.
- King makers.
- Relevance?



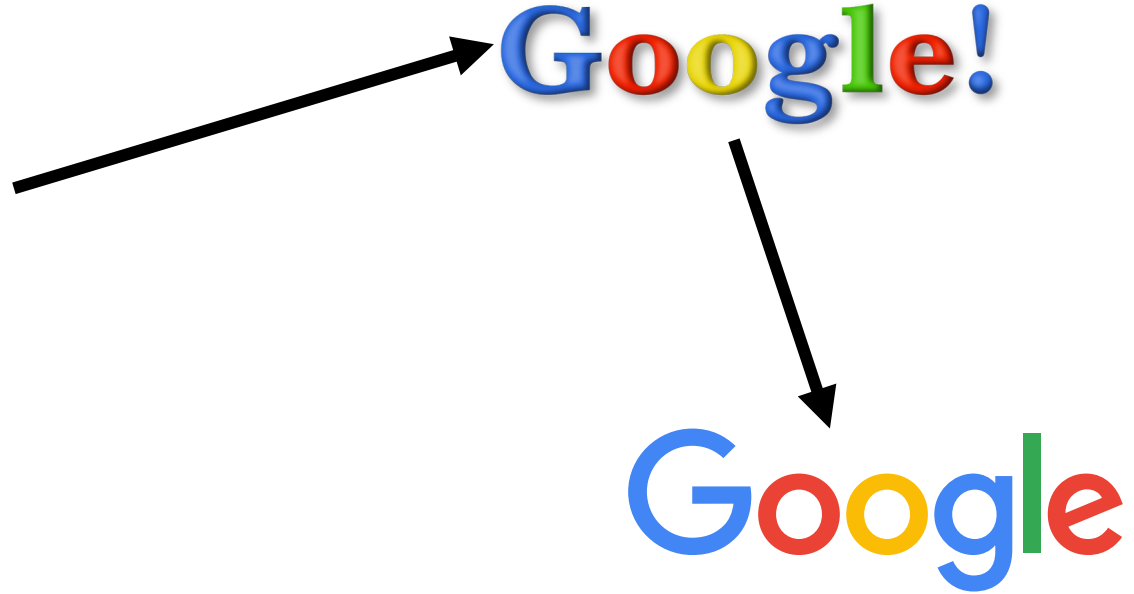
# HTTP Web search: from so-so to great to bad to a new hope



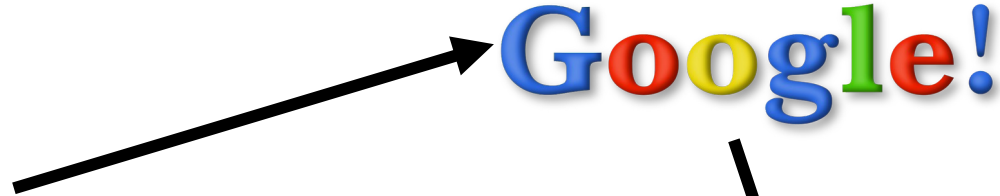
# HTTP Web search: from so-so to great to bad to a new hope



# HTTP Web search: from so-so to great to bad to a new hope



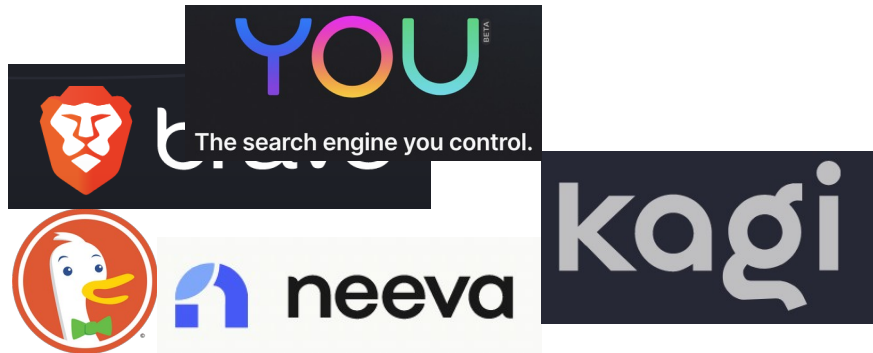
# HTTP Web search: from so-so to great to bad to a new hope



Google!



Google



# dWeb search: leverage new search engines?




- **The dWeb has links → it is crawlable.**
- **It's immutable → No need to re-index visited content.**
- **Innovation in search engines can help build a IPFS/IPNS one.**

# dWeb search: leverage new search engines?



- **The dWeb has links** → it is crawlable.
- **It's immutable** → No need to re-index visited content.
- **Innovation in search engines can help build a IPFS/IPNS one.**

A Brave Search Goggle for the Distributed Web

 `dweb.goggles`

```
1  ! name: dWeb Goggle
2  ! description: Only return results served from ipfs or ipns
3  ! public: true
4  ! author: Fabrice Desré
5
6  ! Remove results not matching any other rule
7  $discard
8
9  https://*.ipfs.*$boost=1
10 https://*.ipns.*$boost=1
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# dWeb search: leverage new search engines?

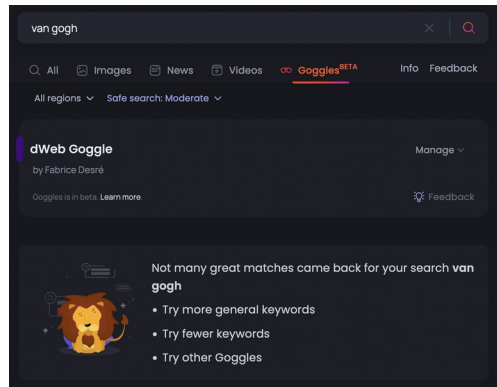


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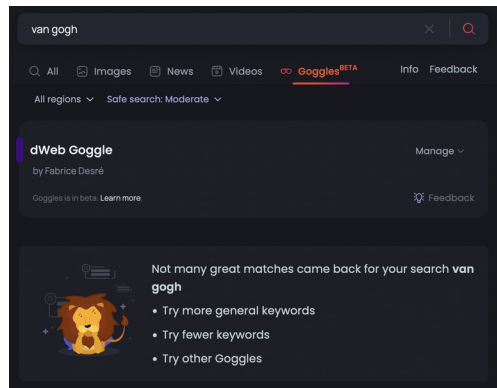


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[https://bafybeiemxf5abjwbikoz4mc3a3dla6ual3jsgpdr4cjr3oz3evfyavhwq.ipfs.dweb.link/wiki/Vincent\\_van\\_Gogh.html](https://bafybeiemxf5abjwbikoz4mc3a3dla6ual3jsgpdr4cjr3oz3evfyavhwq.ipfs.dweb.link/wiki/Vincent_van_Gogh.html)

## 504 Gateway Time-out



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## Application Distribution

- Native app stores: upload and forget.



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## Application Distribution

- Native app stores: upload and forget.
- HTTP Web: get a domain/subdomain, host or pay for http server, etc.



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## Application Distribution

- Native app stores: upload and forget.
- HTTP Web: get a domain/subdomain, host or pay for http server, etc.
- Dweb: publish & pin to IPFS.



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## Native App Stores: Revenue Channel

- Cash cow for the OS vendor.
- Very high % cut for app developers → likely prevents some apps from being built at all.
- Prevent usage of 3<sup>rd</sup> party payment systems for in-app purchases ([https://en.wikipedia.org/wiki/Epic\\_Games\\_v.\\_Apple](https://en.wikipedia.org/wiki/Epic_Games_v._Apple))
- Policy makers are waking up (EU DMA & DSA)!

### Holding

While Apple is not considered a monopoly and did not engage in antitrust behavior on nine of ten counts, Apple's conduct in enforcing anti-steering restrictions is anticompetitive.



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## Current Web: Payments

- Very open landscape (many payment providers to choose from)
- Web Payment DOM APIs have mostly failed.
- Prevent usage of 3<sup>rd</sup> party payment systems for in-app purchases ([https://en.wikipedia.org/wiki/Epic\\_Games\\_v.\\_Apple](https://en.wikipedia.org/wiki/Epic_Games_v._Apple))
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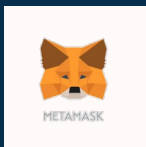
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## dWeb Payments

- Wallets?



- Subscriptions?



- New apis exposed to pages?





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## In a nutshell: Decentralized Web Status

- No gatekeeping
- Discovery
- Distribution
- Payments



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**Thank you!**

