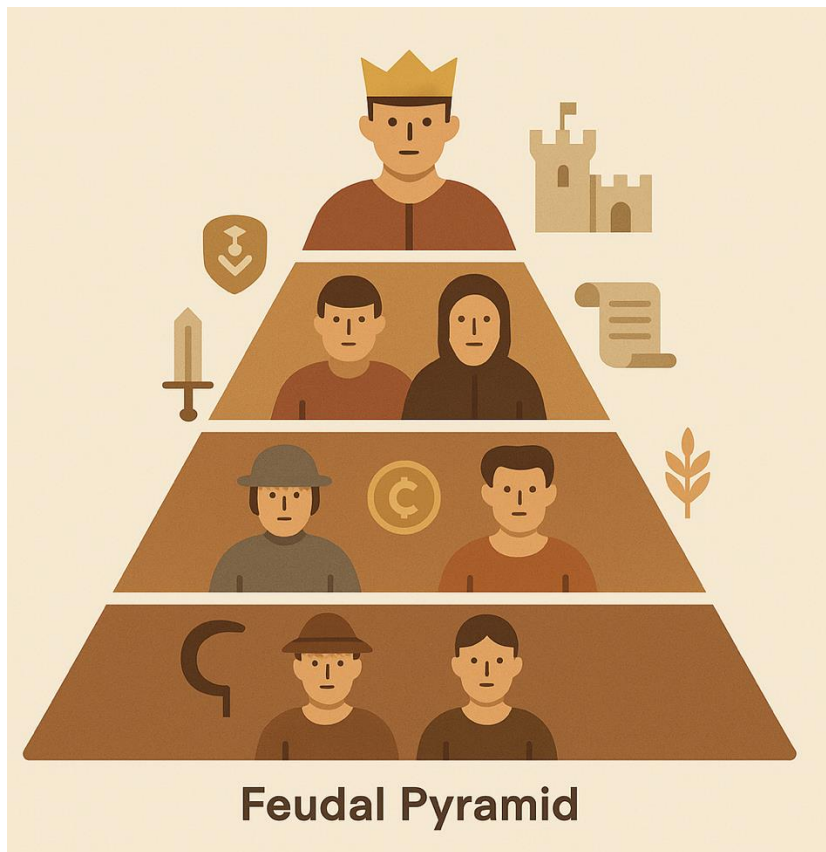




From Data Value to Digital Citizenship

Christian Colombo

The Historical Feudal System



- Peasants were tied to the land and had little agency
- Access to the land in exchange for a significant part of their labour
- Resources flowed up the pyramid, authority flowed down
- Lords exercised arbitrary administrative and judicial power - **Asymmetric Power Dynamic**
- **Their philosophy:** Passive Acceptance
 - A fixed, natural, or divine order
 - Serfs seen as a homogeneous subaltern group (no individual identity)

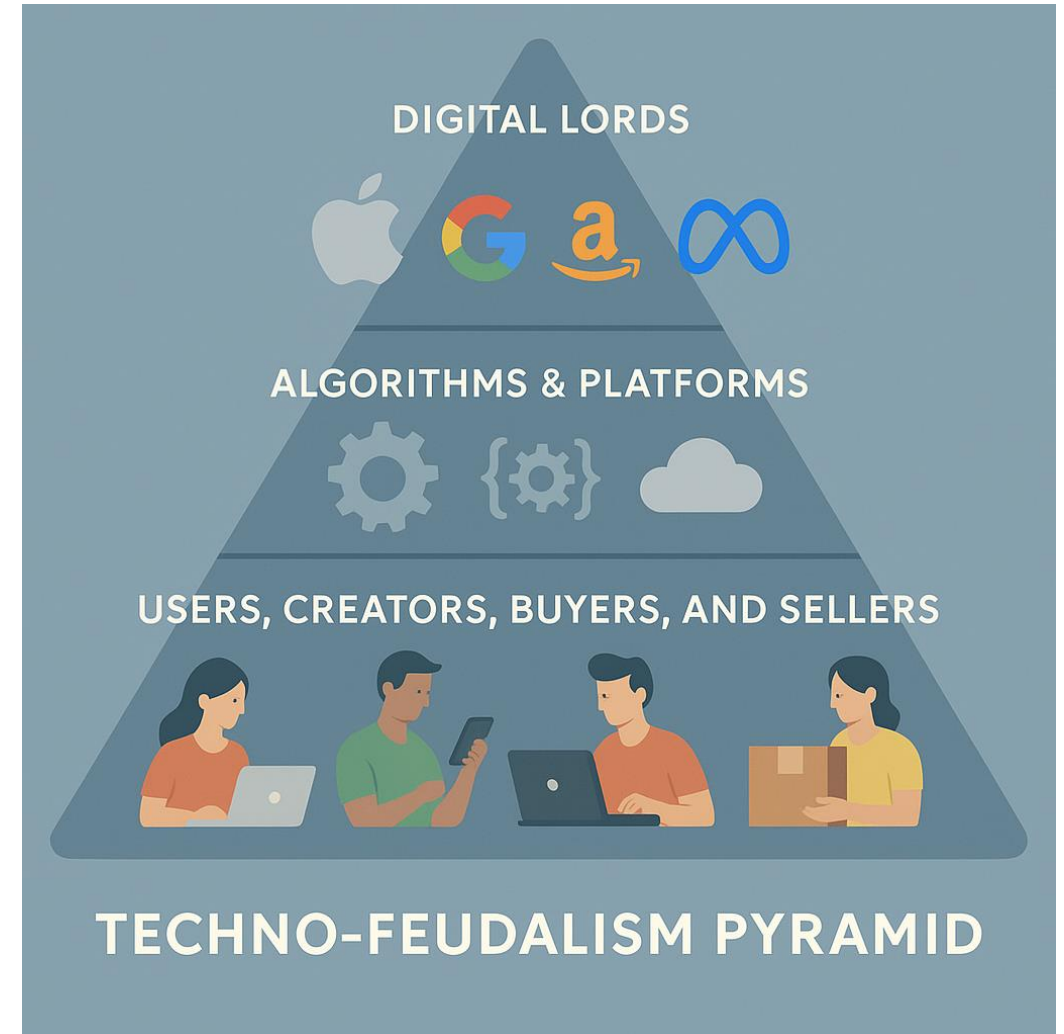
Our Techno-Feudal Present

- The digital land is managed by large corporations
 - Full control of
 - Infrastructure
 - Data
 - Algorithms
- The land is populated by users
 - They get free use of the land
 - But pay with personal data and attention



Our Techno-Feudal Present

- Identity is managed by the lords
 - You are nothing without them!
- Philosophy of the digital serfs is generally
 - Resignation to the status quo
 - Accept free services in return for their data



The rise of discontent

- Data breaches
- Identity theft
- Targeted advertising
- Snowden revelations
- Cambridge Analytica
- Incidents by trusted names
 - Facebook Beacon
 - Google Street View
 - AOL Search Data Release
- AI / data-driven governance
- Slowly users started demanding safeguards



Privacy Legislation

- Governments then started to act about it
 - 2000 – Japan’s Personal Information Protection Act
 - 2003 – Australia’s Privacy Amendment Act
 - 2008 – India’s IT Act
 - 2010 – South Korea’s Personal Information Protection Act
 - 2018 – EU’s GDPR into force
 - 2024 – EU’s AI Act
 - 2024 – Canada’s AI and Data Act



Cooperative Resistance



Data-Labor Unions

(e.g., Swash)

Pooling browsing data, where revenue is automatically distributed to all members via smart contract. An un-corruptible guild.



Worker Cooperatives

(e.g., Driver's Seat)

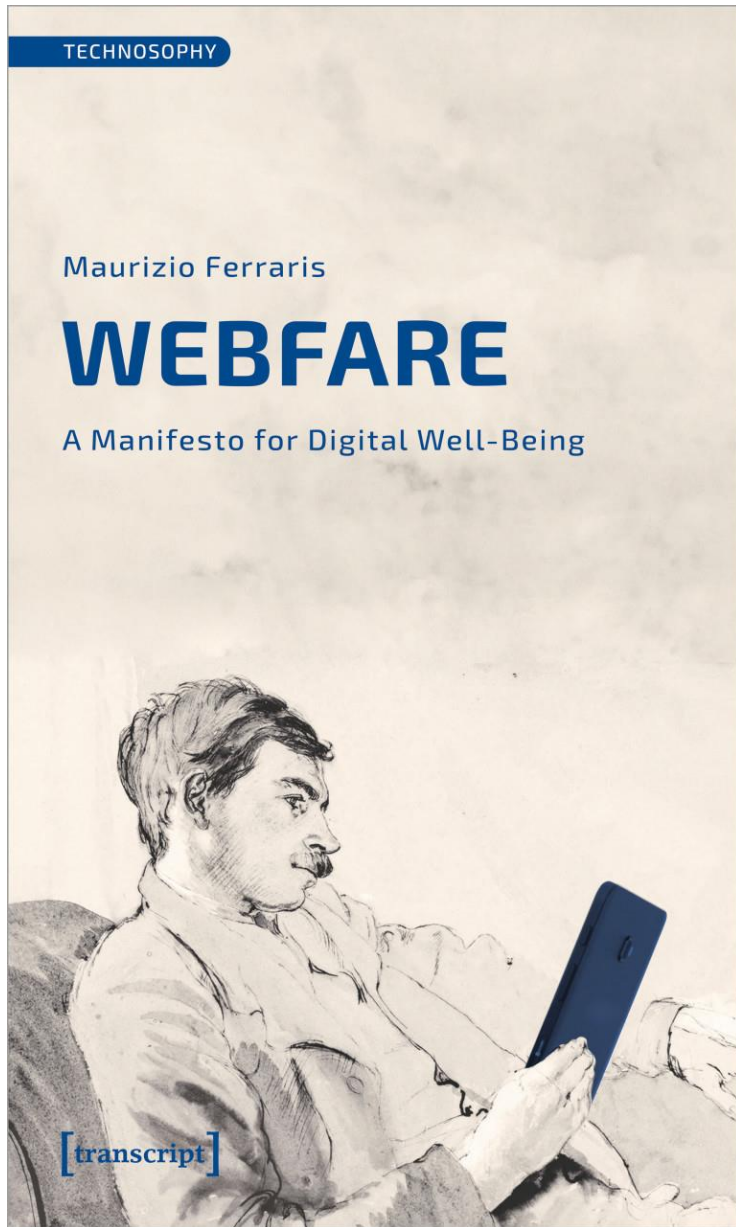
Drivers pool their *own* data to build a "counter-map" against the lords (Uber/Lyft), gaining insight, agency, and profit.



The Health Commons

(e.g., MIDATA)

Members pool sensitive data not for profit, but for mutual aid and ethical research, creating a powerful "social dividend."

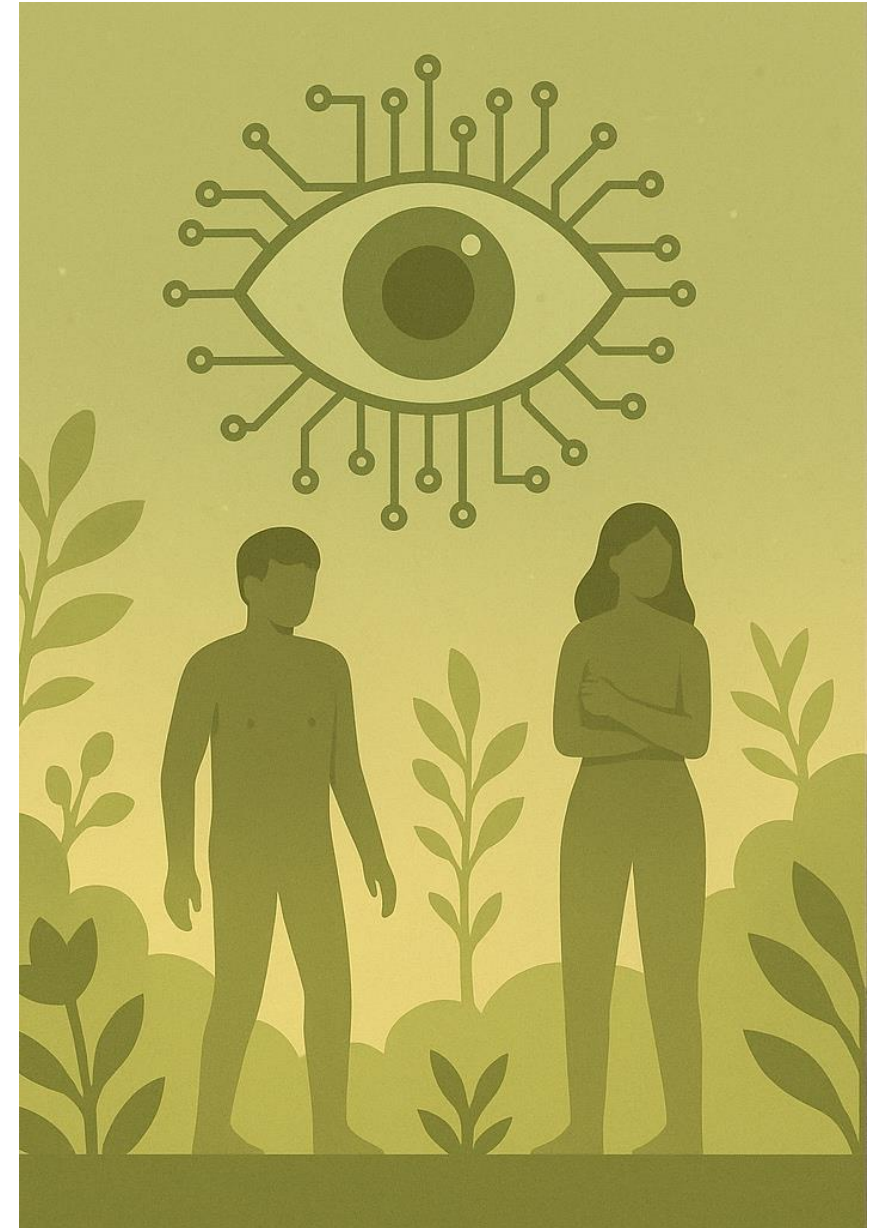


Webfare

- We take control of our own data
- Virtue banks act as intermediaries
- Profit is used for the benefit of the community

Questions Around Webfare

- **How much is data really worth?**
 - Are we really doomed to being recorded?
 - Can we reliably know if data was human or bot generated?
 - What is a fair price for the data?
- **Can we really trust the intermediary?**



Are we really doomed to being recorded?

- Are we in control of what is Recorded?
 - **Device fingerprinting!**
 - Unintended consequence of privacy laws

Can data extraction be truly consensual?

Do we have the necessary bargaining power?



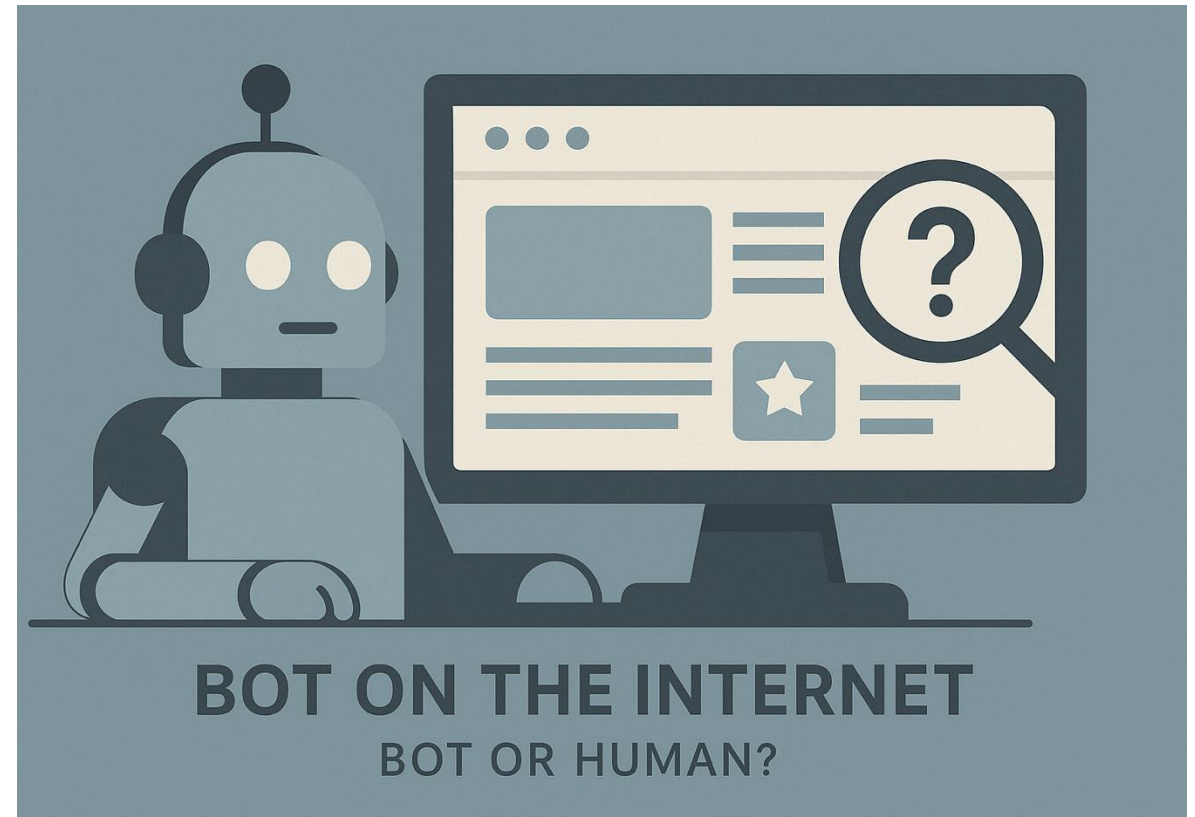
Can we reliably know if data was human or bot generated?

“Man accused of using bots and AI to earn streaming revenue”

<https://www.bbc.com/news/articles/cly3ld9wy3eo>

AI bots have become almost indistinguishable from humans!

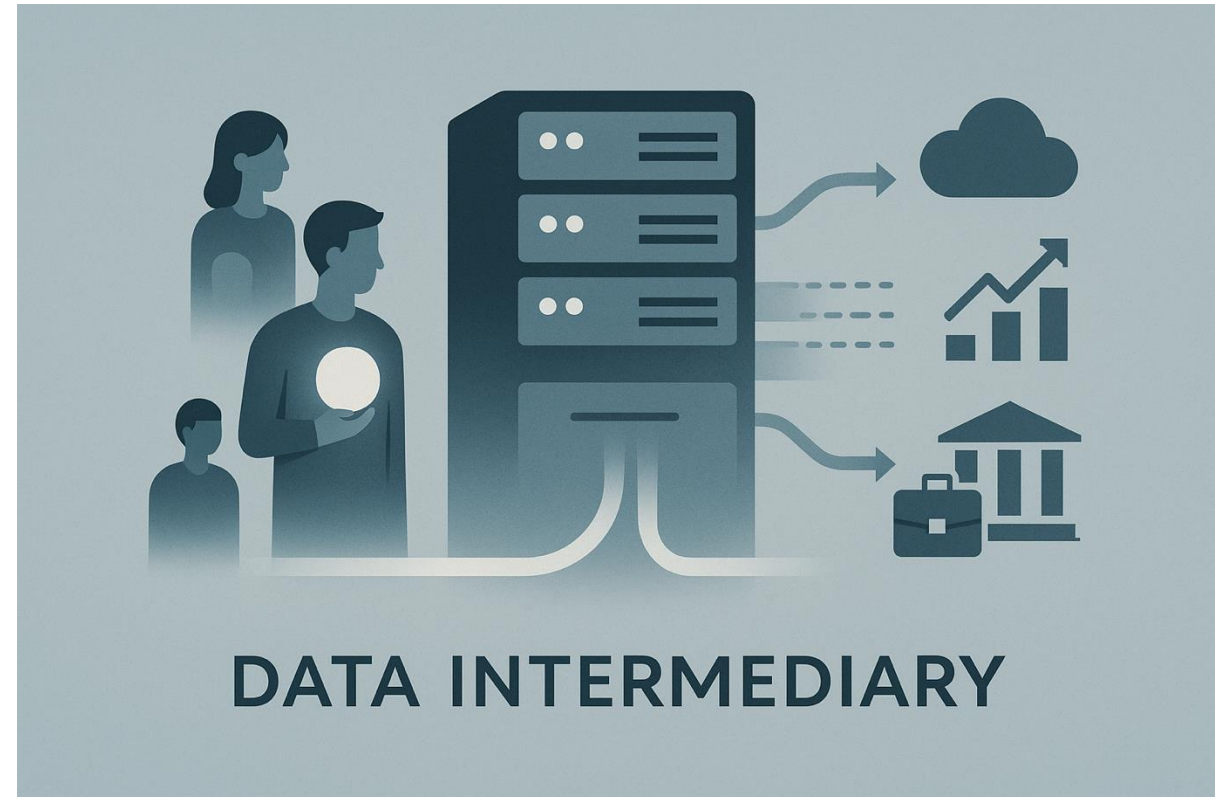
Is the data still valuable?



What is a fair price for the data?

Can we really trust the intermediary?

- *Can decisions be made reliably?*
 - *Which data to keep/throwaway?*
 - *How much should data cost?*
- Trusting the intermediary
 - Concentrating data in a single point
 - Security/privacy risks



We Already have the Technology!



Self-Sovereign Identity (SSI)

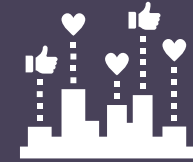
Our own digital seal and papers breaking the monopoly of Big Tech on identity, shifting the focus from sovereign jurisdiction to sovereign individual control over data



Privacy-Enhancing Technologies (PETs)

Answer queries about the data but not share the data itself. Prevent unauthorized creation or extraction of the recording.

(eg: Zero-Knowledge Proofs, Homomorphic Encryption, Multi-Party Computation)



Decentralized Autonomous Organizations (DAOs)

"Free cities" – Their "laws" are transparent smart contracts that cannot be broken by a new, arbitrary king.

Are we really doomed to being recorded?

- No!
 - Browsing can be anonymous
 - Exposure controlled and limited via PETs
 - You can show about yourself as much as you like

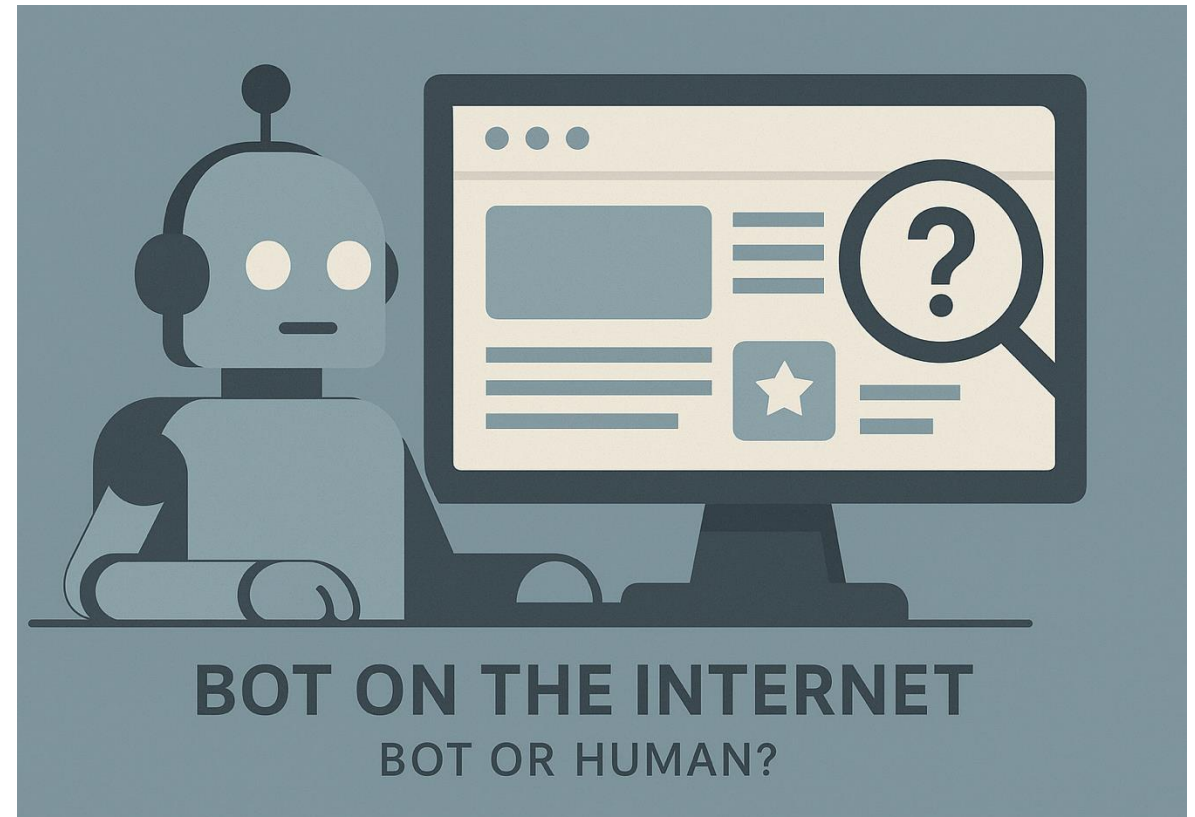
Sovereign identity - independent of the “lords”



Can we reliably know if data was human or bot generated?

Yes, using identities

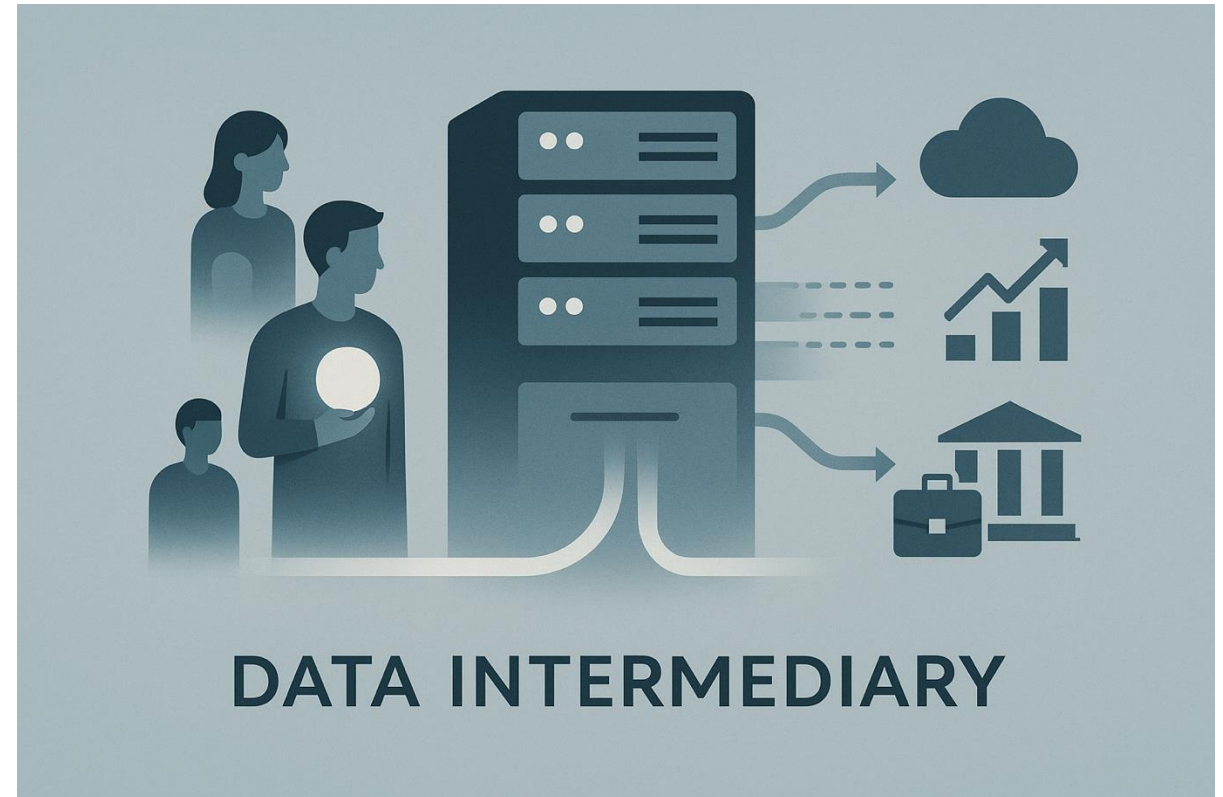
- Verifiable
 - Verify I am a human
- Privacy-preserving
 - Without requiring sharing of official documents



What is a fair price for the data?

Can we really trust the intermediary?

- **Granular control of data visibility**
 - Share only the minimum
- Build the laws into code to have them clearly enforceable (smart contracts)
- Keep data on users' devices
- **Distributed control structures** that answer directly to the individual



How could all this work?

Data Case Study

The polypoly Cooperative

- It provides users with a "polyPod" - a personal data container that **remains on the user's own device**.
- Enterprises must send their algorithms to the "polyPod" to run analysis locally, paying a "toll" to the co-op, which is then distributed as a dividend.
- This radically inverts the feudal power structure: the **"harvest" never leaves the serf's farm**.

Reclaim
your data!

polypoly.coop



How could all this work?

Identity Case Study

- **eIDAS 2.0: EU Digital Identity Wallet Regulation**
- **Member states must offer free digital wallet by 2026**
 - User controls what to share
 - Selective disclosure
(e.g., prove age without revealing birthdate)
 - Minimal data collection by service providers
- **Forces major tech platforms (Google, Meta, Amazon, etc.) to accept decentralized identity**



EU Digital Identity
Wallet

Vision



Fair Data → Identity → Citizenship

Digital democratic citizenship

- Privacy-Preserving Community-Based **Identity** Verification
- Tokenised **Incentives** for Verifiable Virtuous Behaviour
- Transparent and Accountable **Governance** Mechanisms
- **Decentralised Data** Commons/Trusts

Conclusion



- We have come a long way!
 - The early days of oblivious subservance to the lords is gone
- Cooperation, compensation, and solidarity are an important step
 - But is only a step towards something better
- **Complete liberation - democratic digital citizenship** goes beyond:
 - We have the freedom to choose
 - We might still not understand how strong we are in the face of power!

Discussion

