Decentralized Al

Bringing user self-sovereignty back



Outline

Current Al landscape

- **Centralized vs Decentralized AI**
- □ ASI vs HSI
- User self-sovereignty and cognitive liberty
- **Decentralized AI implementation**



Current AI Landscape

- □ AI has been around since the 90s in more narrow scopes
- □ Now reaching the tipping point of widespread adoption
- □ Acceleration in compute power availability and concentration of
 - Al capabilities in the hands of few entities
- Decentralized alternatives still in the early stages
- **Users lack the understanding around their data and privacy**

What is the path forward?





Centralized AI

 Dominated by large tech companies such as Google, OpenAI, Anthropic, Meta, etc.

Data, compute power, development talent in the hands of few

Advantages

Disadvantages

- **Economies of scale**
- □ Access to data
- **Rapid development**

- Data privacy concerns
- Monopoly over Al
- □ **Risk of bias**













Decentralized AI

 Removing single point of failure and adding transparency/verifiability

□ Users are in control of their data

Advantages

Disadvantages

- Control of data
- **Enhanced data privacy**
- Less potential for bias

- Lower performance
- □ Slower coordination
- □ Lack of standardization





User Self-Sovereignty

Data ownership with consent and individual control

Transparency in use of data and AI decision making

Personal data is valuable - user inclusion in the AI economy

Ce-Al

De-Al

- Data breaches
- Surveillance and profiling
- □ Lack of transparency

User controlled data sharing

- Transparent decision-making
- **Distributed governance**





ASI vs HSI

- □ ASI becoming a reality faster than expected
- **G** Fundamental changes to social and economic structures

How to compete with machines?

- □ HSI Augmenting human intelligence with AI
 - □ Brain-computer interfaces (BCI)
 - □ Al-enhanced decision making
 - **Learning and skill enhancement**





Who has access to your thoughts?



Cognitive Liberty

Privacy and freedom of thought

□ The right to control your own cognitive processes

Ce-Al

De-Al

□ Information manipulation

Personalized AI assistants

Erosion of privacy and

autonomy

- under user control
- Manipulation protection





De-AI Implementation

- **Collaborative development of AI models and datasets**
- Blockchain based and privacy-preserving technologies for private data storage and verifiable compute
- **Distributed governance of AI projects**
- □ Challenges such as scalability, interoperability and ensuring

data and model quality do exist but will be conquered



Oasis - Privacy for Web3 & Al



- Oasis is a public blockchain that enables private smart contract storage and private compute for the whole Web3 ecosystem through its confidential runtime powered by TEEs
- ROFL framework Runtime OFf-chain Logic framework is the decentralized, private AI infrastructure that enables compute over private data, distributed verifiability of private compute and many other use cases.



Conclusion

- □ Shifting from centralized to decentralized AI
- □ Balancing ASI development with HSI empowerment
- □ Preserving cognitive liberty and self-sovereignty

An AI - augmented world where AI enhances human capabilities

without compromising autonomy and preserves human values and

diversity



CENTRALIZED IS BETTER BECAUSE FASTER





Get in touch

Matej Janež, Head of Partnerships

- □ Website: oasisprotocol.org
- Email: <u>matej@oasisprotocol.org</u>
- **Telegram:** @matejanez
- □ X: @matejanez







Questions?





Thank you!

