

Decentralised Technologies To Support the Digital Commons

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Web 2.0

- ◆ E.g. **Youtube!**
- ◆ **Great! Users produce contents!**
 - ◆ empowerment
 - ◆ participation
 - ◆ communication
 - ◆ collaboration
 - ◆ Boost of online communities
 - ◆ Boost of user-generated contents
 - ◆ Boost of free culture and digital commons?



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- ◆ **But... A Few Large For-Profit Corporations (!) centralising web services in "the Cloud"**

- ◆ **For-profit**

- ◆ "If you are not paying for the service, maybe it's because you are the product"

- ◆ **Surveillance**

- ◆ NSA
- ◆ Backdoors
- ◆ Monitoring
- ◆ Data Mining
- ◆ Profiling

- ◆ **Single point of failure**

- ◆ Concentration of power/control/resources

- ◆ **Centralised Control**

- ◆ Censorship
- ◆ Filtering
- ◆ Policies (e.g. compulsory real names)

- ◆ **Top-down**

- ◆ Decision-making
- ◆ No community involvement

- ◆ **US-centric**

- ◆ Centralised in one country
- ◆ One legal framework
- ◆ Data channels through one territory

- ◆ **Proprietary Software**

- ◆ Opacity
- ◆ Take-it-or-leave-it

- ◆ **Single Ownership**

- ◆ ...of the infrastructure
- ◆ ...of the contents/results => Commons?

What to do?

◆ **Free/Libre Software: needed...**

- ◆ Open
- ◆ Transparency
- ◆ Accountability
- ◆ Secure
- ◆ Flexible
- ◆ Reproducible
- ◆ Community-driven
- ◆ No backdoors
- ◆ No dependencies

◆ ...but **not enough**

- ◆ => Decentralisation



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Decentralisation

- ◆ **Privacy**
 - ◆ By Design
 - ◆ Encryption
- ◆ **Anonymity**
 - ◆ Multiple identities
 - ◆ Nicknames
 - ◆ No single policy
- ◆ **Decentralised control**
 - ◆ No single actor controlling all the infrastructure
 - ◆ Autonomy & Social control
- ◆ **Bottom-up**
 - ◆ Community-driven
 - ◆ Shared ownership: network of nodes
- ◆ **Diversity**
 - ◆ Multiple regions
 - ◆ Multiple legal frameworks
 - ◆ Adapted nodes to local communities

How to decentralise?

- ◆ **Centralised infrastructure, one node**
 - ◆ e.g. Facebook
- ◆ **Centralised infrastructure, many nodes/communities**
 - ◆ e.g. Ning
- ◆ **Federated infrastructure, many nodes/communities**
 - ◆ interoperable with each other
 - ◆ e.g. Kune
- ◆ **P2P infrastructure:**
 - ◆ each user installs/runs a piece of the infrastructure
 - ◆ e.g. Twister



facebook



NING



Kune



twister

Within P2Pvalue Project

- ◆ Software Platform for boosting the **sustainability** of Commons-Based Peer Production communities
- ◆ **Federated** infrastructure
 - ◆ Building on top of **Kune**, by the Comunes Nonprofit
 - ◆ Interoperable nodes
- ◆ **Privacy By Design** approach
- ◆ **Social research** driven platform
- ◆ Deployment of several nodes for **real-world communities**

