

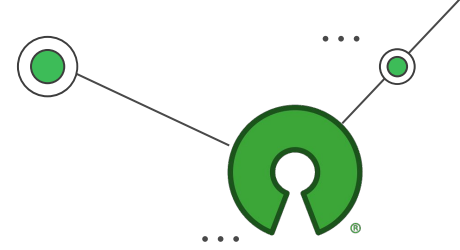
# Regulation, AI and the State of Software Freedom in Europe

Simon Phipps

For many years, we have relied on a big, ALL CAPS waiver of liability in licenses and the ability of the recipient to examine and run the code to ensure software freedom for all. But the cloud, AI and now a wave of European regulation have eroded that dream. Where have we got to, and is software freedom still a viable objective?



# Agenda



## The Journey

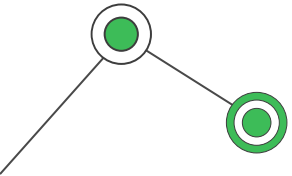
- Software Freedom
- Business Adoption
- Ubiquity
- Economic Reality

## Technology Challenges

- Databases
- Cloud
- AI/ML

## Regulation

- Its Inevitability
- Its challenges
- The reality
- The future



# Open Source Is Now The Core

90%

## Software

According to multiple surveys, open source comprises the vast majority of every software product

10%

## Economy

Open source generates 10% of the annual turnover of the European IT industry



...



...




...



# The Definition is trusted

- Governments,
- Business corporations
- Non-profit organizations

Organizations around the world are relying on the Open Source Initiative to maintain the list of licenses respecting the Open Source Definition.



## DoD Open Source Software (OSS) FAQ: Frequently Asked Questions regarding Open Source Software (OSS) and the Department of Defense (DoD)

U.S. Department of Defence, Office of the Chief Information Officer  
Accessed Sept. 16, 2018

“ Defining Open Source Software (OSS)

Q: What is open source software (OSS)?

A. Open source software licenses are reviewed and approved as conforming to the **Open Source Definition** by the **Open Source Initiative (OSI)**. The **OSI** publishes a list of licenses which have successfully gone through the approval process and comply with the **Open Source Definition**.

- Al software deve essere applicata una delle **licenze approvate da Open Source Initiative** (le Linee Guida ne suggeriscono alcune in particolare, per consentire la massima riusabilità).

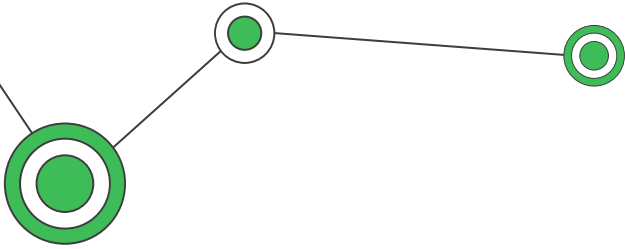
Dipartimento per la Trasformazione Digitale + AgID

A Guide to Open Source Software for Australian Government Agencies

Department of Finance and Administration, Australian Government  
Information Management Office

April, 2005

“ At present, the primary arbiter of what constitutes open source software is the **Open Source Initiative**. (Pg. 9)



...  
**So People Want  
To Leverage It**  
... even if they shouldn't

Fauxpen source

Business Software License

Server-Side Public License

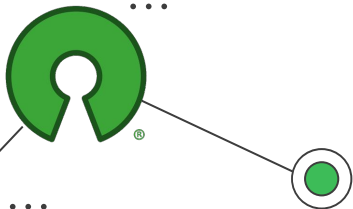
Cloud Computing

Github

Bitcoin

AI/ML

....





D E E P D I V E

**AI**

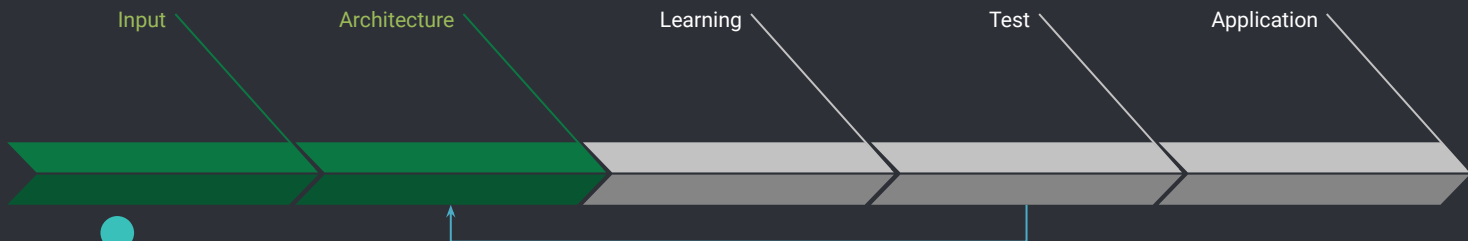
ARTIFICIAL INTELLIGENCE

ARTIFICIAL INTELLIGENCE

D I S C O V E R T H E F U T U R E O F O P E N S O U R C E

EXPLORE

# Data > training > weights > model > app



## Data

Web scraping, git repositories, wikipedia, internet archive... lots of data!

## Training

Clean up the data, add tags, classify

## Weights

Tuning the model to the task.

## Model

Train and test the model against a testing dataset. Wrong answers? Rinse and repeat.

## Application

Use the model in applications.





## Do models have copyright?

Maybe.

Data may have copyright

Datasets may have more than copyright



- The core issues of AI



The data

The models

The knowledge

The hardware

The uses

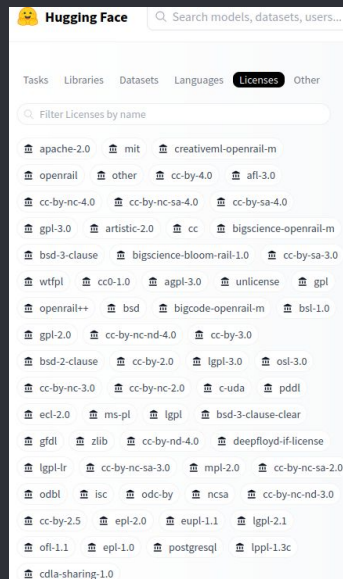
The social norms

## WHY NOW

### The EU AI Act

A provider of a foundation model shall, prior to making it available on the market or putting it into service, ensure that it is compliant with the requirements set out in this Article, regardless of whether it is provided as a standalone model or embedded in an AI system or a product, or **provided under free and open source licences**, as a service, as well as other distribution channels.

### The confusion on the market



And the emergence of gatekeepers

### The speed of evolution

So many models released so quickly, so many new concerns raised each time by so many different set of people...

The lack of clarity favors those who scream the loudest, not the most competent or reasonable.



## ● How Open Source came to be

### 1: Legal framework

Copyright applied to software, first.

This new artifact became privatized work.

Researchers complained.

### 2: Principles

The GNU Manifesto lays the ground to oppose privatization.

A community forms around these principles.

### 3: Licenses

Copyleft is a hack on copyright.

Incorporating the principles, serving as the Constitution of a forming community.



An OSI objective for 2023

# Defining Open AI

- An hybrid event in three phases following exploratory research

### 1: Online presentations

Started September, open call for papers.

[opensource.org/deepdive](https://opensource.org/deepdive)

### 2: Four panels in person + plenary

October 17, Raleigh, NC (All Things Open)

Laying the foundation for a manifesto of Open Source AI.

### 3: Published proceedings

And an early version of an “Open” AI Manifesto. [First release](#) this week

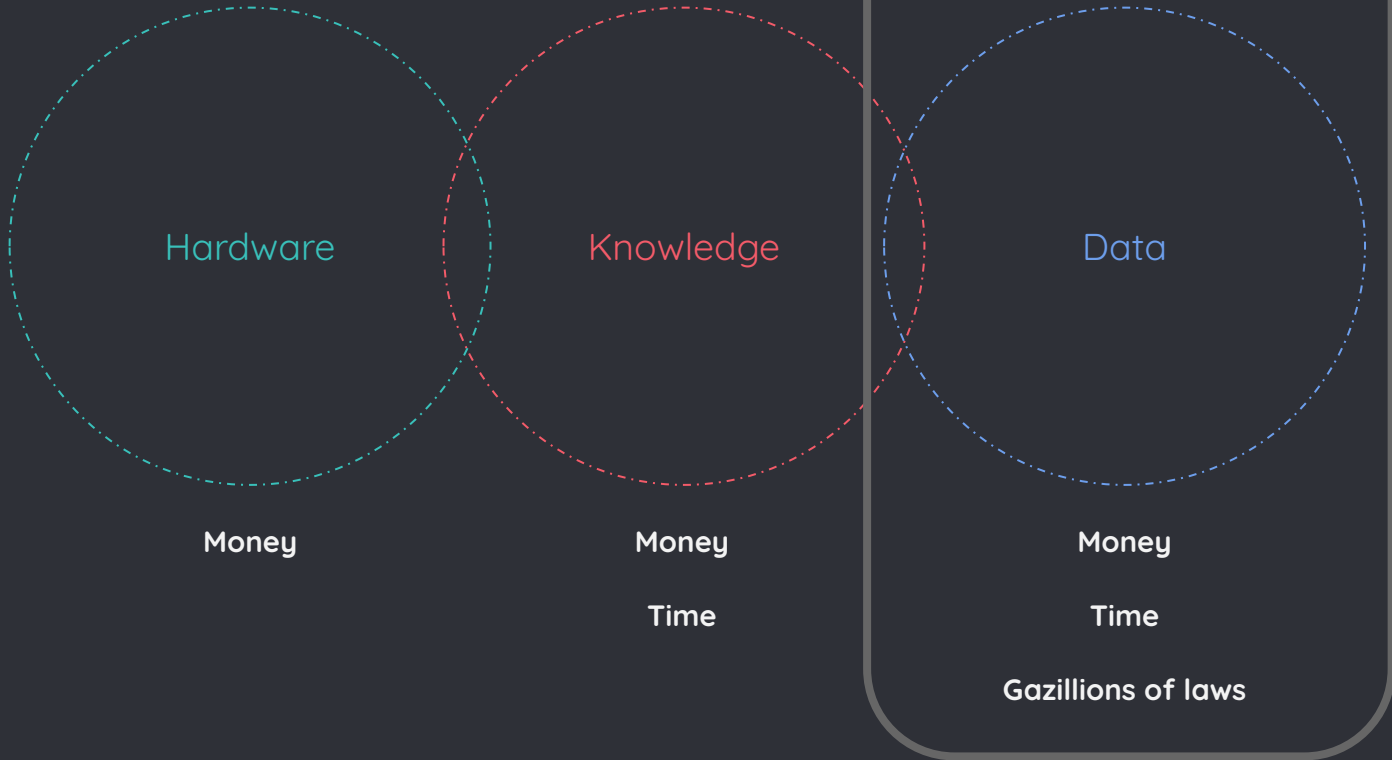
In parallel, holding community meetings.

## ● What is Open Source

○ Open source gives users and developers the ability to

- **decide for themselves** how and where to use a technology
- **without the need to engage** with another party.

- Three building blocks of AI



- A typical ML system is made of

## Software for training and testing, inference and analysis

All that is written by a human and copyrightable must be Open Source.



## Model architecture, weights, training parameters, ...

No restrictions on:

- Who can use them
- How they're used
- Retraining
- Redistribution



## Raw data and prepared datasets, for training and testing

It's **not** the preferred form for making modifications to model/weights.

Does that mean the Definition can ignore the original data?







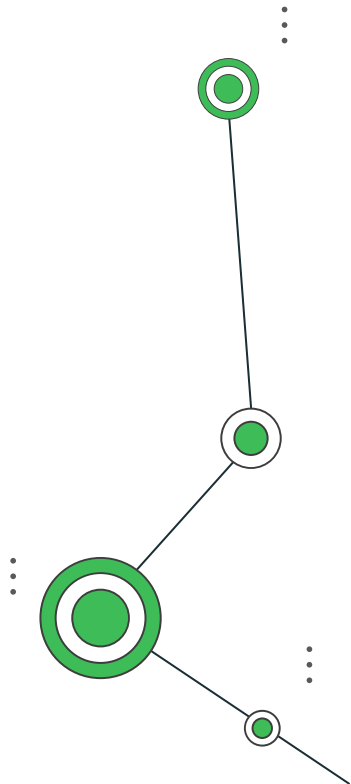
## Golden Rule (applied to ML)

If I like a ~~program~~ **ML system** I must share it with other people who like it.



# Meanwhile AI is already changing lives

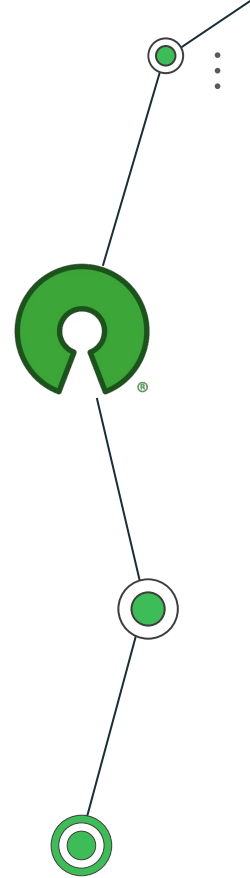
Fixing prison sentences; confirming loans;  
writing code; drafting policy; driving cars....



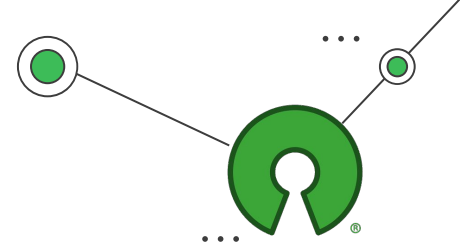
## Regulation is inevitable

- Can't opt out
- Can't work around

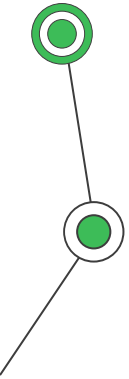
The Only Way  
Forward Is  
Through It



# FOSS-related Legislation 2023



1. Cyber Resilience Act (CRA)
2. Product Liability Directive Update (PLD)
3. Digital Markets Act
4. Digital Services Act
5. AI Act
6. AI Liability Directive
7. Interoperable Europe Act (IEA)
8. Standard Essential Patent (SEP) Regulation
9. Data Act
10. Standards Policy Consultation





# The Fourth Sector

True software freedom communities are part  
of the fourth sector and need consistent  
consultation by legislators

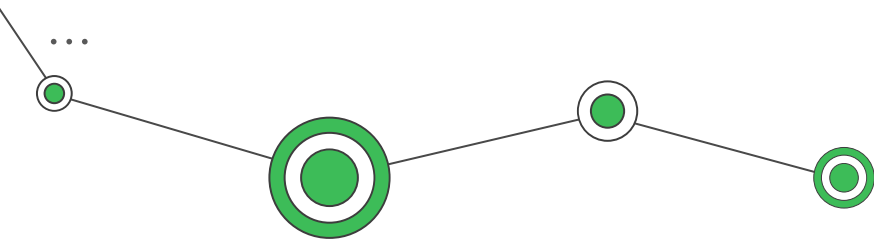
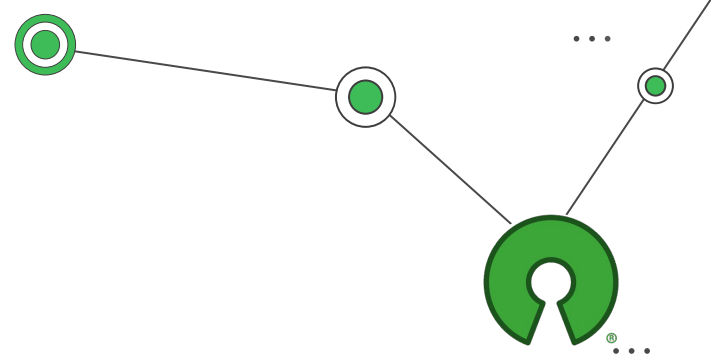
Best achieved via co-ordination - which is  
happening

...

<https://blog.opensource.org/modern-eu-policies-need-the-voices-of-the-fourth-sector/>



What *will*  
“Software Freedom”  
mean in a regulated,  
cloud, AI world?





# Expanding Software Freedom?



## User Retains Agency

... decide for themselves how and where to use a technology

## Optional Intermediation

... without the need to engage with another party

## Regulatory Protection

... regulations respect and protect rather than forcing use of an intermediary

## Federated First

... future software makes federated interoperability with privacy the core principle



# Simon Phipps

*Policy & Standards Director, Open Source Initiative*

ActivityPub: @webmink@meshed.cloud

E-mail: webmink@opensource.org