AI Act &
Free and open source software

Ciarán O'Riordan

ofe OpenForum Europe

Needless to say...

- Open source software
- Free software
- Free and open-source software

All the same.

ciaran@openforumeurope.org

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2 topics today

1) Defining free software or open source AI

2) The AI Act and the regulatory landscape

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Why does this need special attention?

- Use
- Study & modify
- Redistribute
- Distribute modifications

Implemented by a licence and source code.

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The tricky bit

- Study and modify

The technical requirement: source code.

Or more precisely: the prefered form for humans making modifications.

For an AI model, what's that?

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AI System

An AI System can be explained with 25 modules

24 are software, so the only tricky bit is the AI model.

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The question

What do we need so that we can study and modify an AI model?

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The obvious first proposal

- The data is the source code

Copyright
Privacy
Existence
Practical issue

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Is failure a problem?

Well, should we conclude there is almost no FOSS AI?

But there's a more general goal: we want technology users – individually or as a group – to be in control of the technology they use.

How do we apply that concept to AI?

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Can we get enough data?

How much data can we get?

How do we decide when it's enough?

Strategic consideration if we don't have copyleft

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Modifying the model directly

Can we control the model via fine-tuning?

We can certainly modify, but is it enough?

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Current status

We're still near the beginning for both

Maybe 20% done

But it's not a timeline, it's a progress bar

Progress currently seems slow

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Reasons for hope

Governments might solve copyright

Technology might make either easier

We will have new ideas

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How about a more complicated system?

Should we make a second category? Probably

With a separate term? Maybe

(Should we make a spectrum? I think not)

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Why write a definition, and why the rush?

We need to stop "open washing" by Meta

We have an opportunity to influence regulations

Develop a common understanding, like what fueled FOSS

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OSI's work

They ran a two-year discussion

They published a version 1.0 last December

It mostly solves the open washing problem
Parly addresses the need to influence laws
Makes a start ón a common understanding

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What meets OSI's definition?

Probably approved:
- OLMo, MoLMO - by Allen Institute for AI
- Pithya, GPT-J, NEO-X - by Eleuther AI
- K2, Amber, CrystalCoder - by LLM360

Almost approved:
- StarCoder, BLOOM, Falcon - "if they change their agreements"

Not approved:
- Llama, Mixtral, Granite, DeepSeek, any online API

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OSI's next steps

It's version 1.0

2025 will be about listening

Aim to have a new version by Q4 2026

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There's also FSF's work

FSF has also been working on this

Article last November & FOSDEM presentation

Similar, but different approach about terms

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My advice

1. Listen to OSI, FSF and other experts

2. Need more brains (new thinking, not just voices)

3. Just the beginning, not the time for taking sides

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Part II:
EU AI Act

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Context

This is a world first (EU is "regulation first")

Their goal: trustworthy AI and legal certainty

Written in compressed timeframe

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More context

Market regulation is also new for software

New for us

New for the EU's terminology

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Status

Signed and published last summer

Timeline for various parts becoming "applicable"

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Timeline

2 Feb: ban on AI with "unacceptable risk"

2 May: the Code of Practice should be ready

2 August: the penalties start to apply

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Risk

Minimal - no regulation - email spam filters

Limited - customer service chatbots

High risk - healthcare recommendations

Unacceptable - banned

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Unacceptable risk

- Social scoring
- Manipulates decisions deceptively
- Exploits people's vulnerabilities
- Predicting crimes based on appearance
- Biometrics to guess characteristics
- Guessing people's emotions at work

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FOSS exceptions

The FOSS provision: Art 2(12)

"This Regulation does not apply to AI systems released under free and open-source licences, unless they are placed on the market or put into service as high-risk AI systems or as an AI system that falls under Article 5 or 50."

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But...

Recital 103

AI components that are provided against a price or otherwise monetised (...) should not benefit from the exceptions provided to free and open-source AI

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FOSS exception does not apply to

High-risk AI systems

Prohibited AI practices (art 5)

AI that directly interacts with humans

"generating synthetic audio, image, video or text content"

"emotion recognition system"

"biometric categorisation system"

"generating deep fakes"

"generates or manipulates text (...) informing the public on matters of public interest"

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Further FOSS exceptions

But, there are also lighter regimes

In particular about transparency

See recitals 102, 103, 104

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Further FOSS exceptions

So, what is a free and open-source AI component?

It's one that "allows users to run, copy, distribute, study, change and improve software

And now we're back where we started!

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Ciarán O'Riordan

ciaran@openforumeurope.org