

# Ethics

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# Your challenges around AI and data

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*What are some of your challenges around using  
AI models and data...?*

# General Challenges of Ethics in AI

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- Traditional research ethics may not be well suited to AI applications
  - Research Ethics Committees typically deal with biomedical, and human subject oriented research. The relationship between researchers and subjects is different to the relationship between researchers and data.
- The changing landscape of AI
  - The rapidly shifting landscape of AI/ML is challenging to keep up with. We run the risk of not being able to adapt ethical frameworks quickly enough.
- Multi-site and multi-organization collaborations
  - A significant amount of research now involves collaborations between multiple research groups and potentially with private organization. This can lead to conflicting standards of ethical review.
  - Reliance on external private organization (e.g. for compute resources) exposes you to ethical risk.

# General guidelines

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- **Do No Harm**
  - Try not go beyond what is necessary to achieve a specific aim. Risk assessment should be used to prevent harms.
- **Safety and Security**
  - Vulnerabilities to attack should be addressed.
- **Privacy and protection**
  - Privacy must be protected throughout, and adequate data protection frameworks should be established.
- **Accountability**
  - All systems should be auditable and traceable.
- **Transparency and explainability**
  - The level of transparency and explainability should be appropriate so as not to conflict with privacy and safety.
- **Human-in-the-loop**
  - AI systems should never replace human responsibility and accountability.
- **Sustainability**
  - Assess the impact of your research on the environment.
- **Awareness**
  - Public understanding of AI and data should be promoted wherever possible
- **Fairness**
  - Research should promote social justice, fairness, non-discrimination, and inclusivity.

# Some considerations

It can sometimes be difficult to know whether models are open source or not...

- It is becoming beneficial for companies to claim that a model is “open source”
- But what does it really mean for a model to be open source...

Project (maker, bases, URL)	Availability						Documentation					Access		
	Open code	Training data	Model weights	Watermarking	Prompt mod	Licensing	Code	Architecture	Preprint	Paper	Modelcard	Datasheet	Package	API
Stable Diffusion	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	~	~
Deep Floyd	~	~	✗	✗	✗	~	~	~	~	✗	✓	✗	✓	✗
Invoke AI	~	✗	✓	✗	~	✓	✗	✗	✗	✗	✗	✗	✗	✗
Craiyon / DALL-E Mini	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✓	✗	✗	✗
Dream Shaper	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗
OpenJourney	✗	✗	~	✗	✗	~	✗	✗	✗	✗	✗	✗	✗	✗
DALL-E /2 /3	✗	✗	✗	✗	✗	✗	✗	✗	~	✗	✗	✗	✗	✗

Liesenfeld, Andreas, and Mark Dingemanse. "Rethinking open source generative AI: open washing and the EU AI Act." The 2024 ACM Conference on Fairness, Accountability, and Transparency. 2024.

# Resources

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[The dangers of using proprietary LLMs for research](#)

[Framework for responsible research and innovation](#)

[UNESCO Ethics of Artificial Intelligence](#)