### The Alan Turing Institute

### Open source practices underpinning the SAFE-D principles

Kirstie Whitaker Pronouns: she/her

# "Sunlight is the best disinfectant"

Louis Brandeis https://en.wiktionary.org/wiki/sunlight\_is\_the\_best\_disinfectant

Open source practices already deliver safe and ethical AI\*

- Safety and sustainability
- Accountability
- Fairness
- Explainability
- Data stewardship

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# "Given enough eyeballs, all bugs are shallow"

Eric Steven Raymond, The Cathedral and the Bazaar Linus' Law: https://en.wikipedia.org/wiki/Linus%27s\_law

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Having a broad and engaged community involved throughout an AI development workflow keeps infrastructure more secure and keeps the purpose of the work aligned with the needs of the impacted stakeholders.

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v2.6.0-beta.2 | build: release 2.6.0-beta 2 build: build 2.6.0-beta.2. feat: dynamic directive arguments for v-on, v-bind and custom custom origin/dynamic-directive-arguments | feat: dynamic args for custor perf: improve scoped slots change detection accuracy (#9371) packages Anyone could say anything we bind dynamic arcuments use bind herper > src was ▶ test babelic is official. And to emphasize types the point, labelled the notes esintre is' Request for dynamic directive arguments for v directive arguments for v directive arguments of v directive ar flowconfig fix: fix checkbox event edge case in Freedow .gitignore

anach and waters musical dynamic, angument, a

BACKERS.md

test: fix tests in IE/Edge

Stephen Crocker, Request For Comments (RFC's) History https://www.livinginternet.com/i/ia\_rfc\_invent.htm chose: update com

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Providing documentation covering how decisions are made, how changes can be suggested through requests for comment, and how concerns can be raised for example through codes of conduct – facilitates accountability through the AI development workflow.

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### "You don't need a diversity committee if you have a diverse committee"

@TuringWay @kirstie\_j https://doi.org/10.5281/zenodo.8381378

Teon Brooks, https://teonbrooks.com

### Who is building open source AI?

#### 21 September, 14:00 - 15:30 UTC+1 Register on Eventbrite





Arielle Bennett Programme Manager The Alan Turing Institute





Marzieh Fadaee Senior Research Scientist Cohere for Al





Abinaya Mahendiran David Gray Widder

> CTO Nunnari Labs





Jennifer Ding Senior Researcher The Alan Turing Institute



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Open source AI should clearly communicate how the AI model and workflow are considering equity and justice. The open source AI community can embed existing tools for bias reporting into an interoperable open source AI ecosystem.

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"The actual scholarship is the complete software development environment and the complete set of instructions which generated the figures."

Buckheit & Donoho https://statweb.stanford.edu/~wavelab/Wavelab\_850/wavelab.pdf

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The ability to interrogate all aspects of a workflow is the foundation of the definition of open source: access to the source code, data, and documentation. Current open source ways of working will enhance transparency and explainability across the AI ecosystem.

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# "Digital assets should be findable, accessible, interoperable and reusable"

Wilkinson, et al; The FAIR Guiding Principles for scientific data manageme and stewardship. https://doi.org/10.1038/sdata.2016.18

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Metadata standards allow for interoperability even where data can not be made openly available. Documentation, accountability, and transparency around how data is gathered and used are the building blocks of open source AI.



Stop Stand

> @TuringWay @kirstie\_j https://doi.org/10.5281/zenodo.8381378

# Stop

 Thinking of ourselves as separate, disconnected, individual people and projects.

 Avoiding responsibilities around data governance, and crediting the people who are affected by the tools or models we build. Start

- Building in accountability for decisions across an AI development workflow.
- Explicitly connecting data processing responsibilities with bias mitigation reporting frameworks through the tools we build.

# Continue

- Working transparently.
- Building diverse communities.
- Documenting governance decisions.
- Supporting maintenance and infrastructure work.
- Scaling access to knowledge worldwide.



@TuringWay @kirstie\_j https://doi.org/10.5281/zenodo.8381378

https://the-turing-way.netlify.com

### Operationalising the SAFE-D principles for Open Source AI



Prof David Leslie Director of Ethics and Responsible Research and Innovation



Victoria Kwan Corporate Governance Research Ethics Manager Dr Kirstie Whitaker Director of Tools, Practices and Systems Research Programme

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Alan Turing Institute

> open source initiative®