

The Lab Notebook: Bringing Science Back to Data Science

csv,conf,v6, May 2021

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Who am I?



Practitioner

Community builder

Writer

Pragmatist

It's pronounced JIF not GIF ;)

Who am I?

√

Poll

√

What?

√

Why?

√

How?

√

AI Ethics

√

MAIEI

Poll



*What comes to your mind
when you hear lab notebook?*

*What is the biggest pain point
that a lab notebook can solve
for your data science
workflow?*

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AI Ethics

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MAIEI

What?



Organizational tool

Memory aid

Record of ownership of
ideas (academia vs.
corporate)

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How?

✓

AI Ethics

✓

MAIEI

Why?



Why are we doing this project?

Lineage of decision-making

Supplement to tooling like MLFlow, DVC, W&B

Generating audit trails

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How?

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AI Ethics

√

MAIEI

Why?



Keep track of ideas

Record for future research
work

Reproducibility

Avoid repetition and
hair-pulling on why a decision
was made

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How?

Version control and share
with others

Everyday effort: review at the
start and end of lab day

Use ledger approach to
generate audit trails

Cursory -> Detailed



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How?



Clarify and rephrase

Generate a template once you start feeling comfortable

Record negative results and failures

“Better to write it down and not need it than to not write it down and need it”

Can use: <https://github.com/xwmx/nb>

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✓

MAIEI

AI Ethics

Reproducibility

Auditability

Transparency

Who am I?

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AI Ethics

∨

MAIEI

Montreal AI Ethics Institute

The logo for the Montreal AI Ethics Institute (MAIEI) is displayed on a black rectangular background. The letters 'MAIEI' are rendered in a white, sans-serif font. The letter 'E' is stylized with a blue-to-white gradient and a slight shadow effect, making it stand out from the other white letters.

*Democratizing AI ethics
literacy*

Community

Education

Research

Learn more at

<https://montrealethics.ai>

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