

# www.ar-tiste.xyz Pitchdeck 2025

July 6, 2025



# Introduction

We have written open source software called Mappa Mundi that seamlessly combines 2 giant topics in Artificial Intelligence (AI):

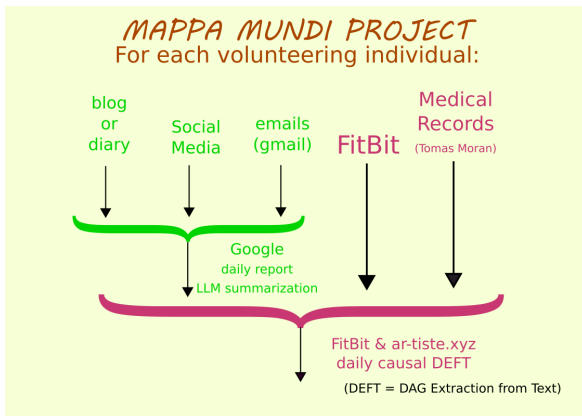
- Large Language Models (LLM) such as ChatGPT, GPT-4, Bard, etc
- Causal Inference (the gold standard theory for distinguishing between correlation and causation. Invented by Judea Pearl)

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# What problems does Mappa Mundi solve?

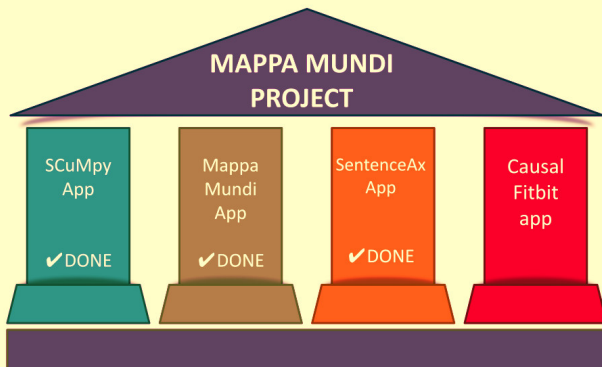
- Healthcare and Biotech: finding causal pathways for diseases
- Business Management, A/B test and beyond
- Longevity research
- Dieting
- ...

# Finding Causal Pathways for diseases



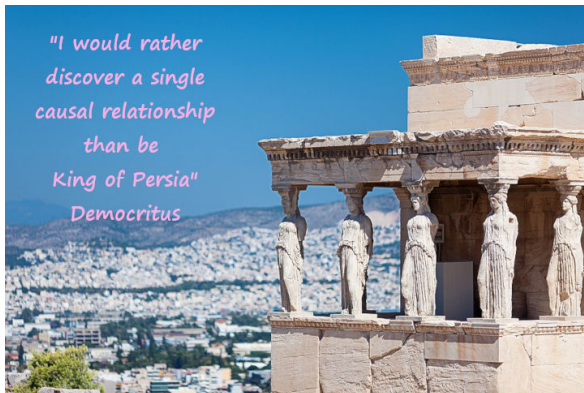
How Google  
can crush  
its LLM  
competitors  
OpenAI  
and Meta by  
Bard-ifying  
its FitBit  
product line.

# Mappa Mundi Project



# Startups applying causal AI to healthcare/biotech

# Distinguishing between correlation and causation



Distinguishing between correlation and causation is necessary in all the sciences. It is the goal of science and of the scientific method.

# Clayton Christensen on Causality

“Correlation does not reveal the one thing that matters most in innovation—the **causality behind why I might purchase a particular solution.** [...]

I spent my life developing theories about management. **A theory is a statement of causality.** Every time you as a manager take an action, it's predicated on a theory: If I do this, this will be the result. If we do it this way, we'll be successful.”

— Clayton Christensen



Source: <https://hbswk.hbs.edu/item/clay-christensen-the-theory-of-jobs-to-be-done>



Mappa Mundi is a realization of this dream



# Spock-GPT

science officer of the  
starship @OpenAI

Spock-GPT will be able to  
perform the scientific method and  
causal inference. This will enable  
it to discover heretofore unknown  
causal pathways to diseases, and  
go where no man has gone before.

# Mappa Mundi Software

- Mappa Mundi (MM) is free open source software that extracts causal networks (DAGs) from text.
- MM works with any text that does chronological storytelling, such as novels, movie scripts, time stamped lab notebooks and patient diaries. It can be used to find causal pathways to diseases.
- MM uses 2 types of state of the art (SOTA) LLMs
  - ① Openie6 – for SOTA sentence simplification
  - ② sentence transformers – for SOTA sentence similarity
- MM is immune to hallucinations because 1 and 2 are immune
- MM is immune to copyright infringement lawsuits because 1 and 2 did not use copyrighted data to train.
- MM can't be hacked by prompt injection because it doesn't use prompts.

LLMs are currently used merely as exquisite curve fitters. To attain human level intelligence, one needs more than just curve fitters. One also needs to add to LLMs, at the very least, 3 things:

- ❶ a method for discovering causal world models (i.e. DAGs) from data
- ❷ a directory (i.e., atlas) of DAGs. A DAG atlas is necessary so as to remember past DAGs for future reuse.
- ❸ an explicit engine (like our software SCuMpy) for performing Pearl's 3 rungs of causal inference and the closely related scientific method

Our software Mappa Mundi accomplishes 1, 2, 3.

# References

- [www.ar-tiste.xyz](http://www.ar-tiste.xyz)
- [https://github.com/rrtucci/mappa\\_mundi](https://github.com/rrtucci/mappa_mundi)
- [https://github.com/rrtucci/mappa\\_mundi/tree/master/jupyter\\_notebooks](https://github.com/rrtucci/mappa_mundi/tree/master/jupyter_notebooks)
- [https://github.com/rrtucci/mappa\\_mundi/blob/master/white\\_paper/mappa\\_mundi.pdf](https://github.com/rrtucci/mappa_mundi/blob/master/white_paper/mappa_mundi.pdf)
- <https://github.com/rrtucci/scumpy>
- <https://github.com/rrtucci/SentenceAx>