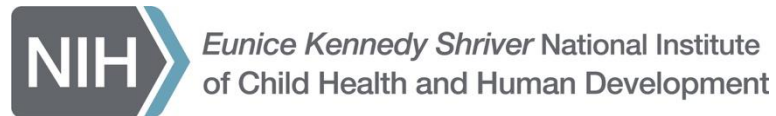# "All your base are belong to us": Generative AI and research impact

Chris Belter, Division of Extramural Research, NICHD

Fall 2024 Health Research Alliance Members Meeting

Potential roles for AI in scholarly communication

AI as oracle

AI as arbiter
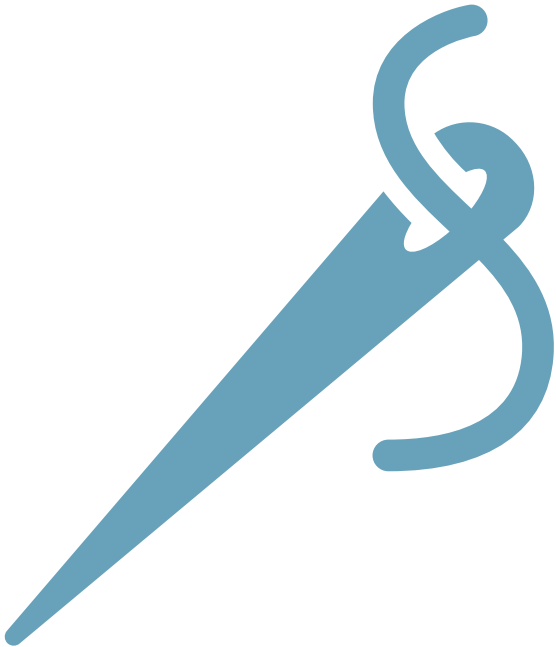
AI as evaluator

Framing questions

Are we there yet?

What could possibly go wrong?

Pilot project:
Background and methods

What I need (1)
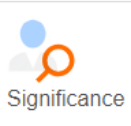
What I need (2)

What Elsevier is building

What we did

The set-up

- I selected 10 research projects with known societal impacts and another 10 at random

- I provided the 20 projects and resulting publications to Elsevier

- Elsevier ran them through their tool and asked ChatGPT 3.0 to describe their subsequent impact

Questions

1. Could the tool tell them apart?

2. Could it tell us why?

Pilot project:
Results and discussion

Results summary

Identification accuracy: 80%

Impact statement accuracy: not great

The hype problem

All the projects were above average

The attribution problem

The AI didn't know what a review article was

The scaling problem
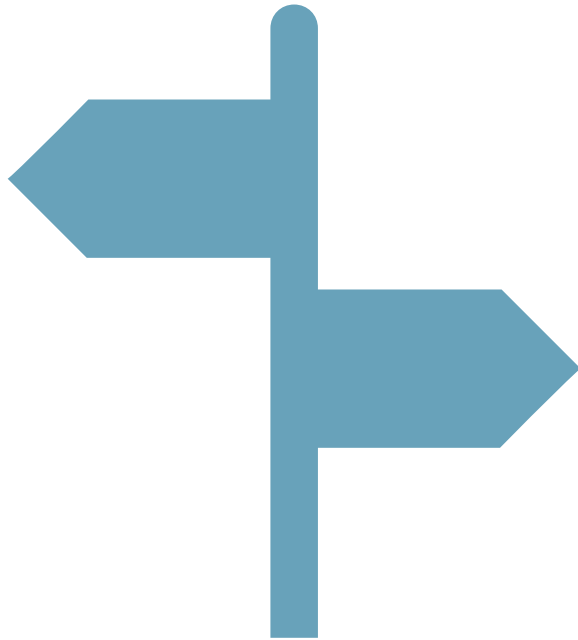
More publications led to worse results

The selection problem

The AI didn't know which results were important

The eco chamber problem

"Tell me the impact of a project based on that project"

Other potential problems

The trust problem

We want to believe that the algorithm is right

The effort problem

We might take shortcuts with the inputs

We might not question the results

The bias problem

Will it inherit our biases?

Will we notice if it does?

Conclusion

Where we are now

What we want to avoid

So, to have that make up por the switch in all-encompassing kook, let's step back y dive discretely back towards more about the gene o week of nail jellium, in a more grounded lingua. If there's any pieza as ooky as una fish's leftie or straight-up grid-like mo'rinforino needed, lay down. I'm set-tide here for the shovel & sobre-cose. ✨💅🌟

Would it glad your clicklies to grape-turn-tooth over a mind-ocean jello type? Or submarine-else que quisieras que dive in-toe? Please, share with there-forth como desire! 🌊💼🐟