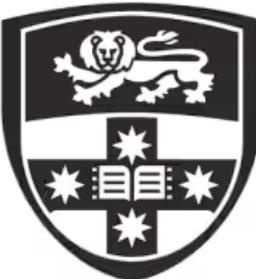


*I stole this title from Jaron Lanier's book.

Who Owns the Future^{*} of AI?

How and why ownership matters for human-AI collaboration.

Dr. Katy Ilonka Gero
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THE UNIVERSITY OF **SYDNEY**

Who Owns the Future* of AI?

equitable access

legal rights

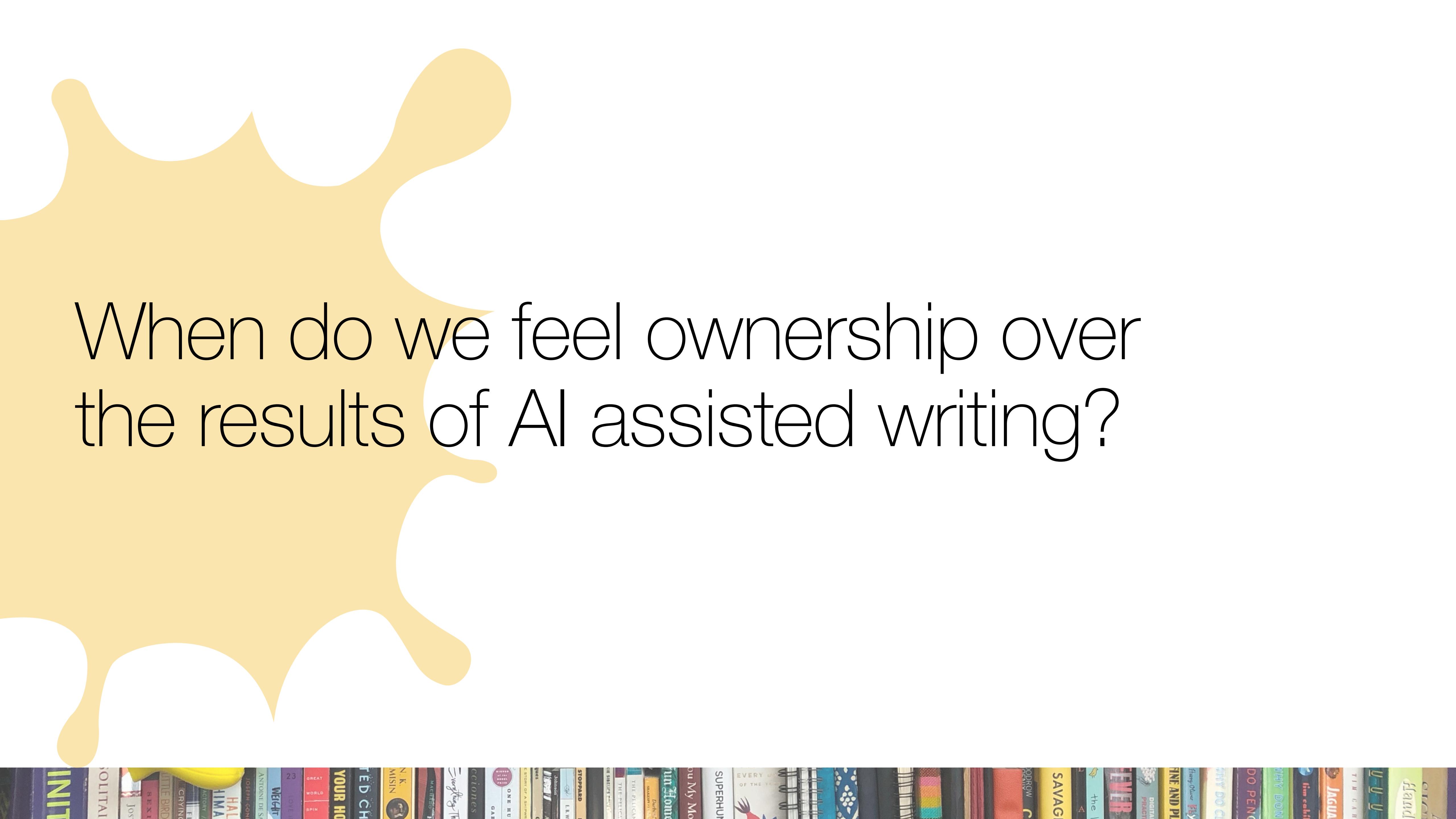
cognitive engagement

accountability

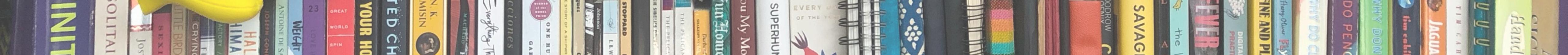
Who Owns the Future* of AI?

What does it mean to own AI writing?

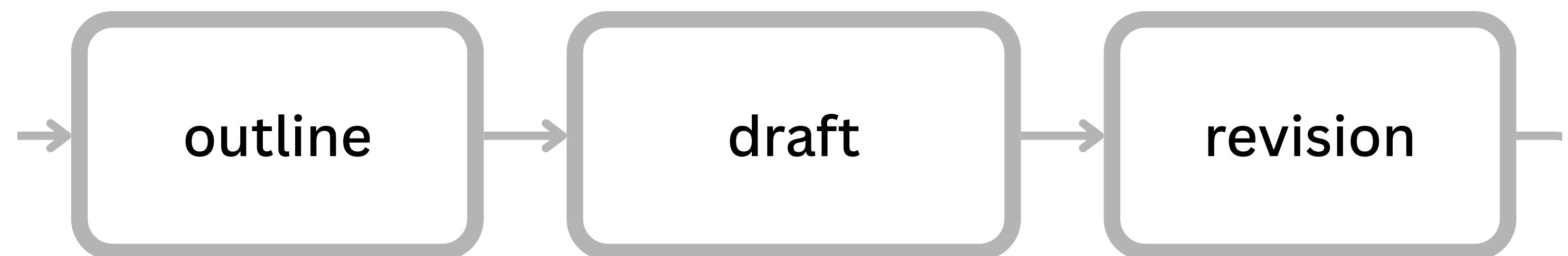
1. Who owns the outputs of AI-assisted writing
 2. Who owns the model that assists you?

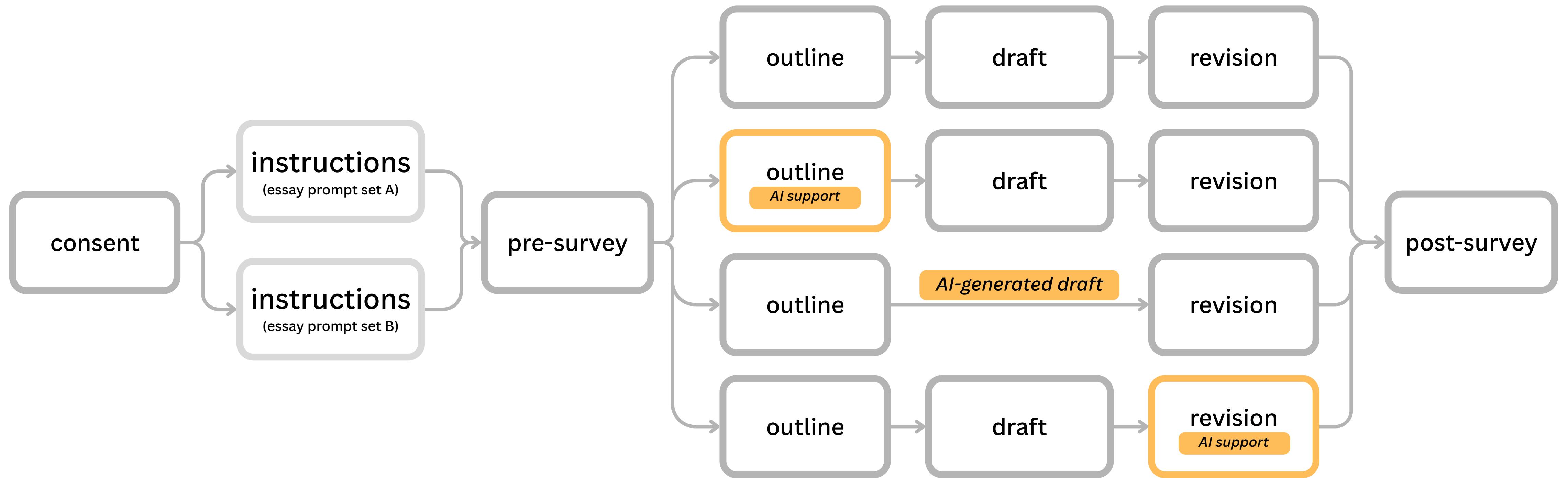


When do we feel ownership over the results of AI assisted writing?



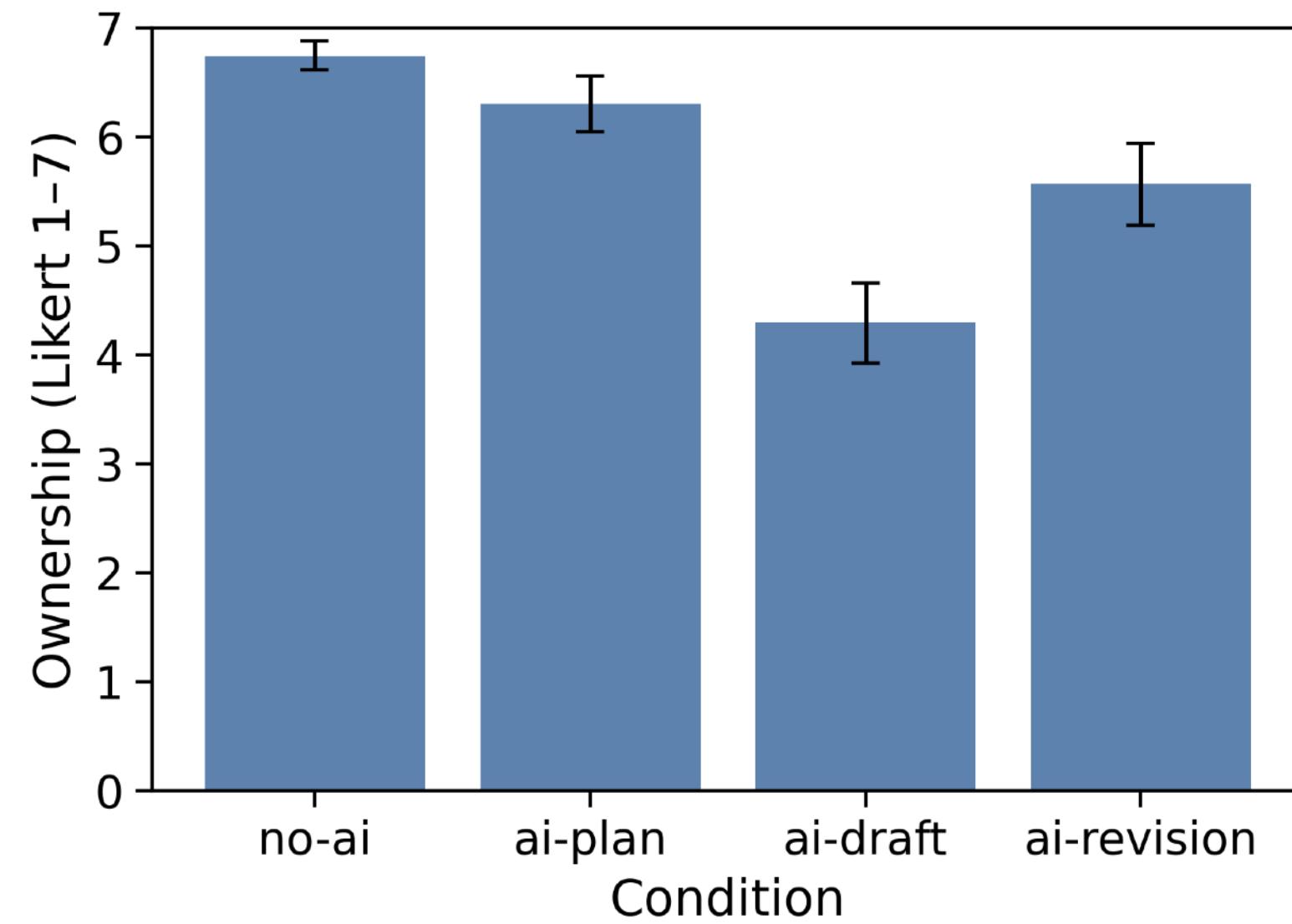
AI-assisted writing decreases ownership *(wait, but why?)*





1. How does the stage of AI support change **ownership**?
2. How does the stage of AI support change **text and idea attribution**?

1. How does the stage of AI support change ownership?



** no AI v. avg AI

** AI draft v. (AI plan, AI revision)

* AI plan v. AI revision

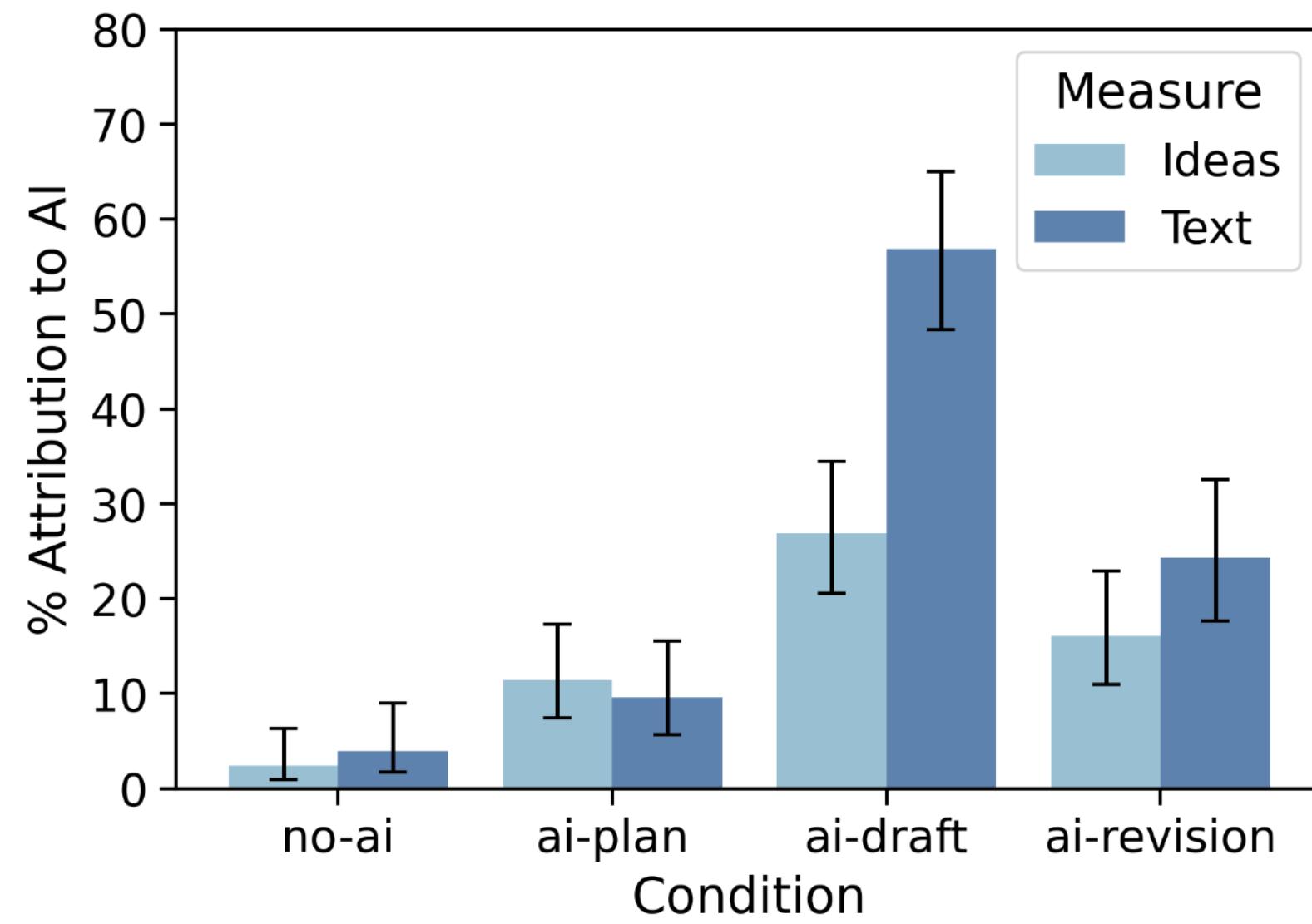
** $p < 0.001$

* $p < 0.005$

Participants talked about emotional resonance, self-efficacy, and their sense of voice or expression:

- I wrote “*from the heart*”, it was a topic I “*hold dear*” or am “*extremely passionate about*”
- “*I feel I am very capable of discussing this topic since I have experienced it over the past few years*”
- “*the outline was mine, but the voice, the writing style, was not*”

2. How does the stage of AI support change ideas & text attribution?



** no AI v. avg AI

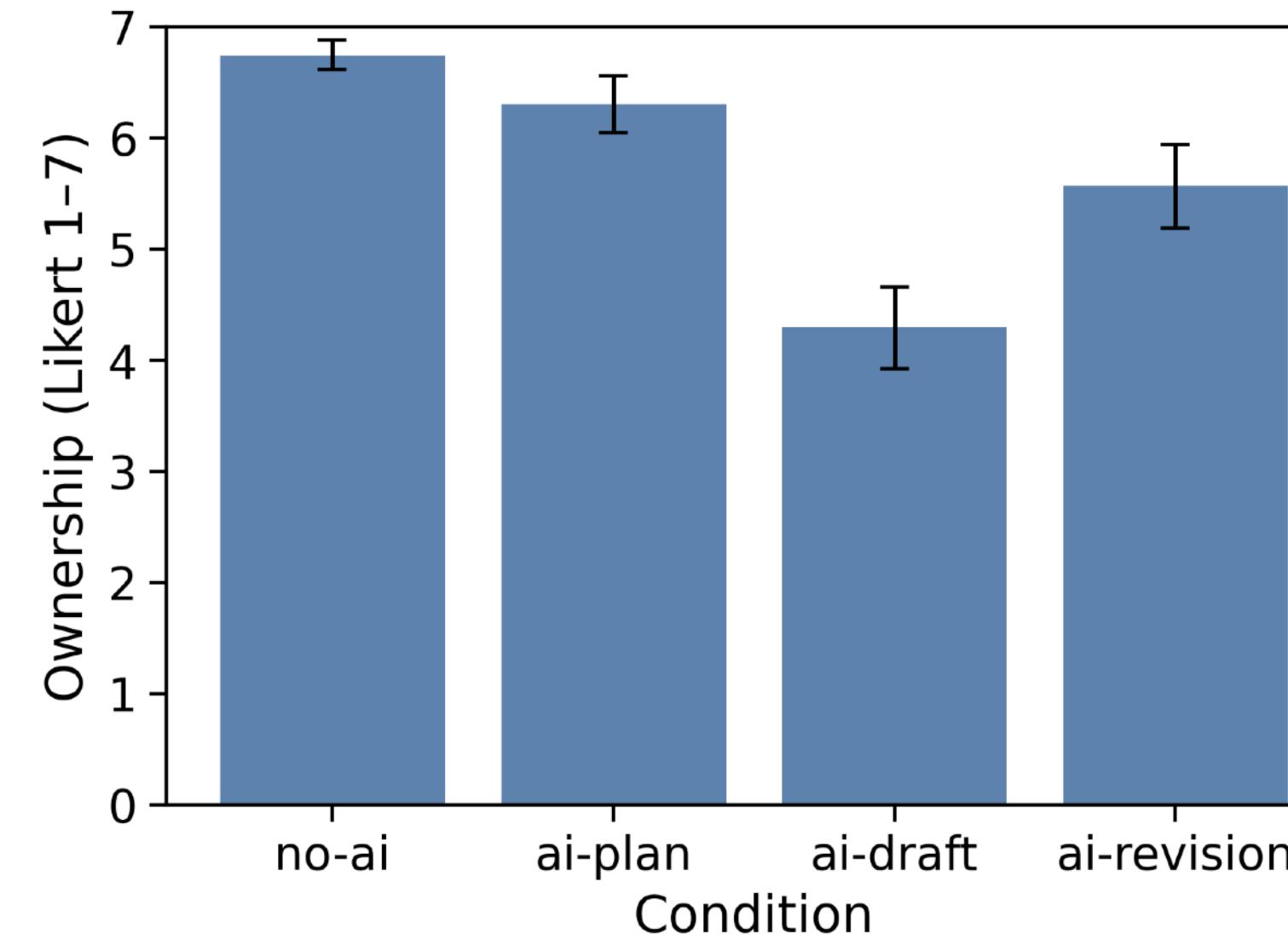
** AI draft v. (AI plan, AI revision)
AI plan v. AI revision

** $p<0.001$

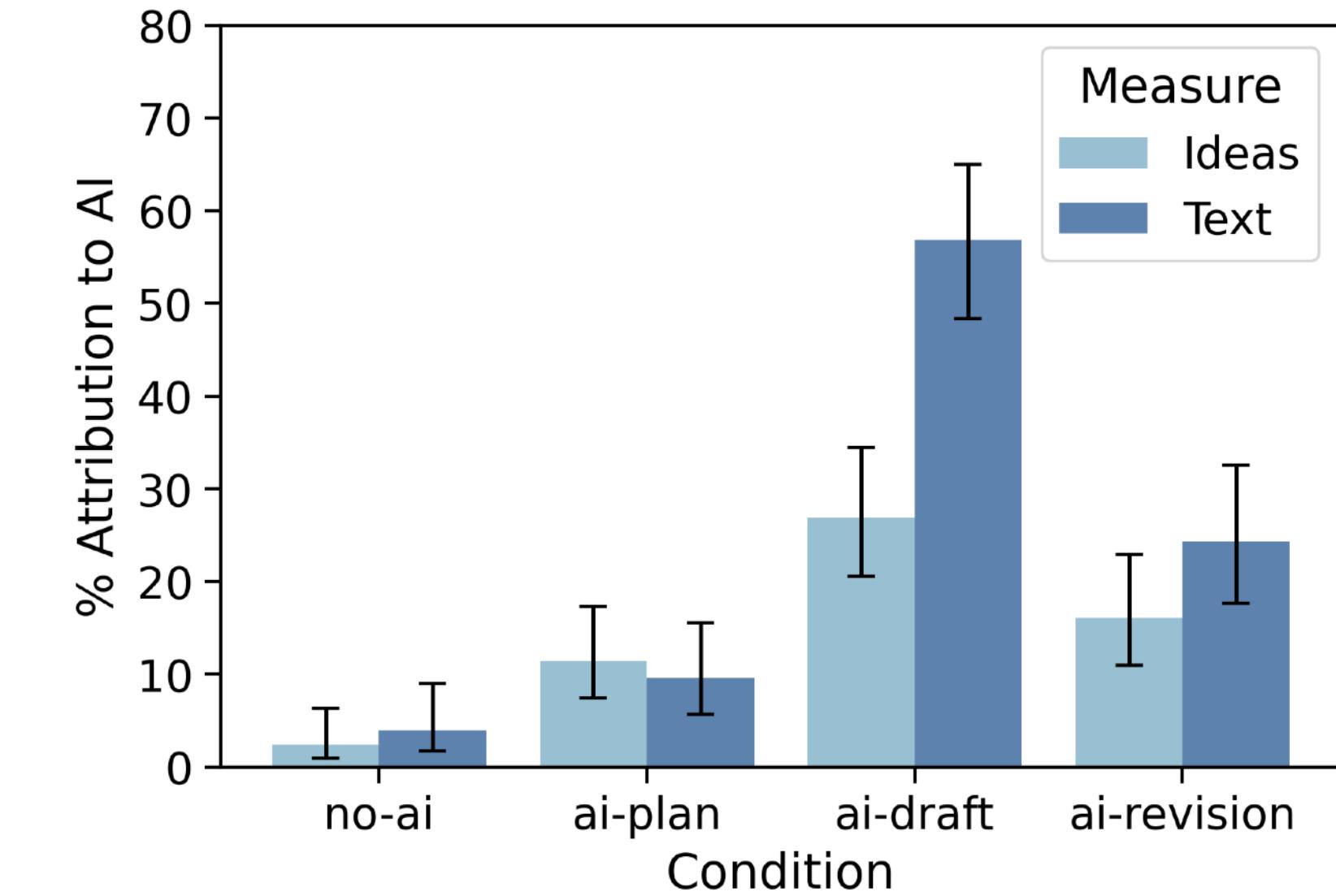
Participants wrote about the myriad ways in which ideas were accepted, ignored, integrated, changed, or added to by either themselves or the AI assistance:

- “the AI did come up with outline ideas, but they matched/confirmed what I had already thought”
- “I seeded the ideas and they were fleshed out, but not changed”
- “The AI offered several points that I was simply not aware of. While I chose whether or not to add them, adding them seemed like a no-brainer - but they were also not my ideas, borne of my own research.”

ownership



idea & text attribution



1. AI plan introduced *less* ideas than expected; AI draft introduced *more*.
2. AI draft is dwarfed by both AI text and *ideas*.

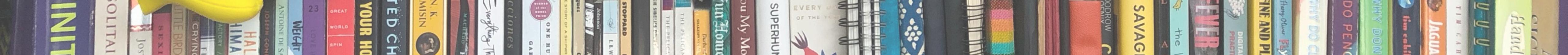
Writing as a mode of learning.

"I felt like the essay was completely written by AI but the ideas were mine. I feel as though if I were to write the essay it would take me much longer and would require me to have a deep understanding on the topic. When I write essays, the process of writing the essay helps me determine my final decision on the matter, the more I write the more I allow myself to think and reason with the evidence I found."

In the learning sciences, there is an idea of “desirable difficulties” or “productive struggle”.

- When is the work of writing worth the investment?
 - When is the efficiency AI support worth the time saving?
 - When should AI make writing harder, rather than easier?

Who owns LLM training data?



What is Books3?



2.3 Books3

Books3 is a dataset of books derived from the contents of the Bibilotik project made available by Shawn Presser (Presser, 2020). Bibilotik consists of a mix of fiction and nonfiction books and is almost an order of magnitude larger than our next largest book dataset (BookCorpus2). We included Bibilotik because books are invaluable for long-range context modeling research and coherent storytelling.

The Pile: An 800GB Dataset of Diverse Text for Language Modeling

Shawn Presser. 2020. Books3. <https://twitter.com/theshawwn/status/1320282149329784833>.

Shawn Presser 
@theshawwn

Suppose you wanted to train a world-class GPT model, just like OpenAI. How? You have no data.

Now you do. Now everyone does.

Presenting "books3", aka "all of bibilotik"

- 196,640 books
- in plain .txt
- reliable, direct download, for years: the-eye.eu/public/AI/pile...

thread 

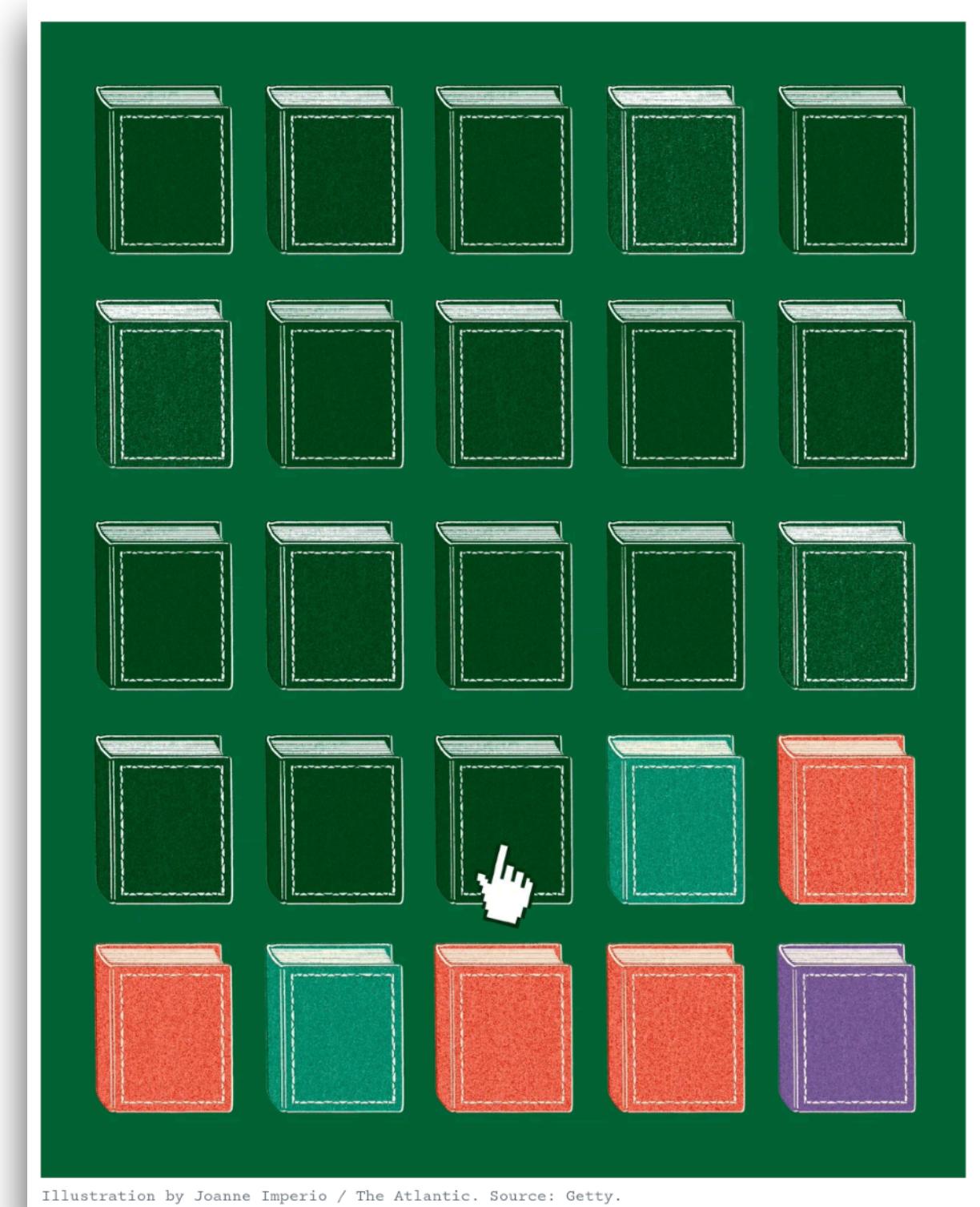


Illustration by Joanne Imperio / The Atlantic. Source: Getty.

TECHNOLOGY

THESE 183,000 BOOKS ARE FUELING THE BIGGEST FIGHT IN PUBLISHING AND TECH

Use our new search tool to see which authors have been used to train the machines.

By Alex Reisner



Why might a writer be for or against the use of their work as +?

RQ1: How do writers reason about the real or hypothetical use of the

RQ2: Under what conditions, if any, would they consent to their w



Principles

Creative Chain

Respect

Human Element

"It's just being a link in the **creative chain**. I made something. Somebody else saw that, and they got a spark of an idea to do something else, and they want to build off of it. We're all building off of each other constantly." (P20)

"I think it just comes again to **respecting** the works and **respecting** the people. Because I think that's probably my main issue with a lot of AI stuff is just the complete lack of respect for the works that they have been using to profit off." (P18)

"Honestly, I think a lot of the reason that people like reading other people's stuff is because there's the **human element** there. You're looking at one guy's perspective of an insane situation ... It's the project of one person's mind." (P13)



Principles

Creative Chain Respect

Human Element

Realistic Expectations

Lack of Control

Industry Impacts Interpretation of Scale

"One of the things that we're all really feeling right now is a **lack of any options** in this. When I found out that my work was in Books3 I emailed my agent right away. And I was like, I know there's like nothing you can do, I just want you to know that this is a thing, and that I don't like it." (P20)

"We could easily be **putting artists out of work**. And what does that mean for them as artists and humans, [who need] to put food on their table, but also like, what does that mean for culture and society?" (P9)

"Cause I'm trying to think, okay, upsides and downsides. It's hard to pinpoint one, because again, I'm a **little drop of water in a huge ocean**. I don't have a distinct style, so I don't... I don't really know." (P24)



Principles

Creative Chain

Respect

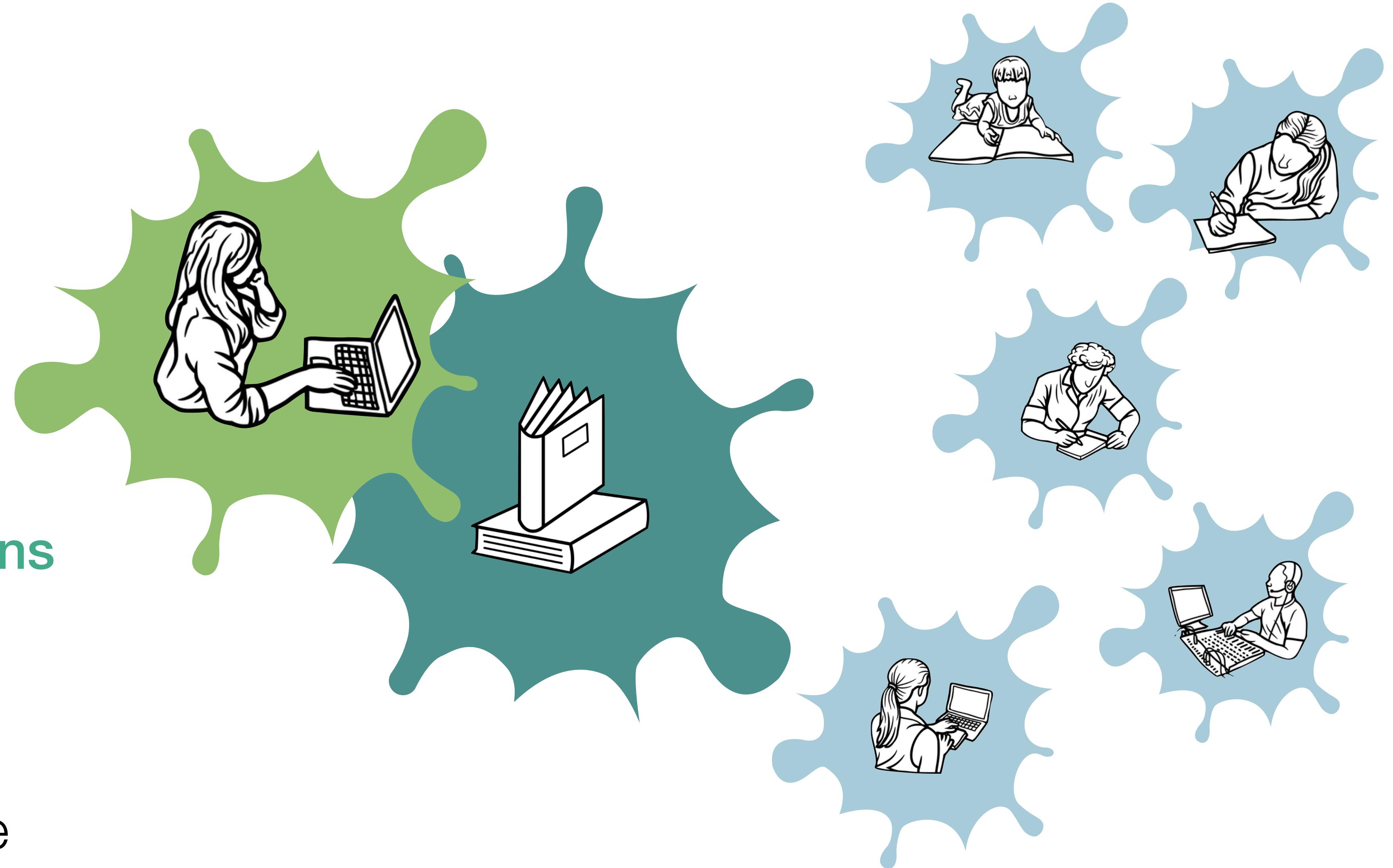
Human Element

Realistic Expectations

Lack of Control

Industry Impacts

Interpretation of Scale



Principles

Creative Chain

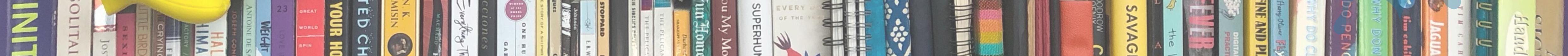
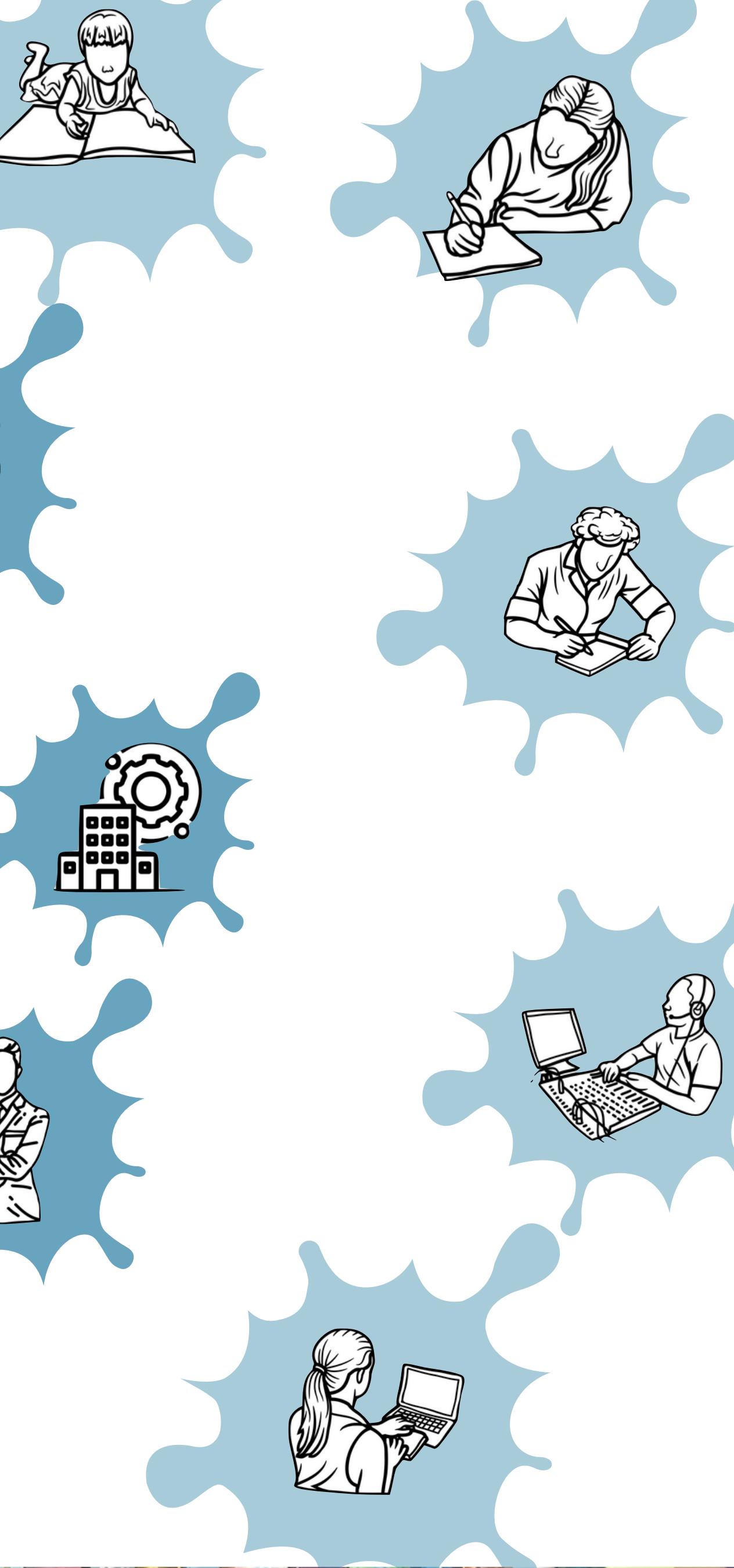
Respect
Human Element

Realistic Expectations

Lack of Control

Industry Impacts

Interpretation of Scale

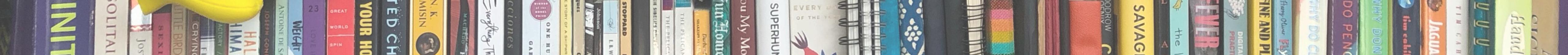
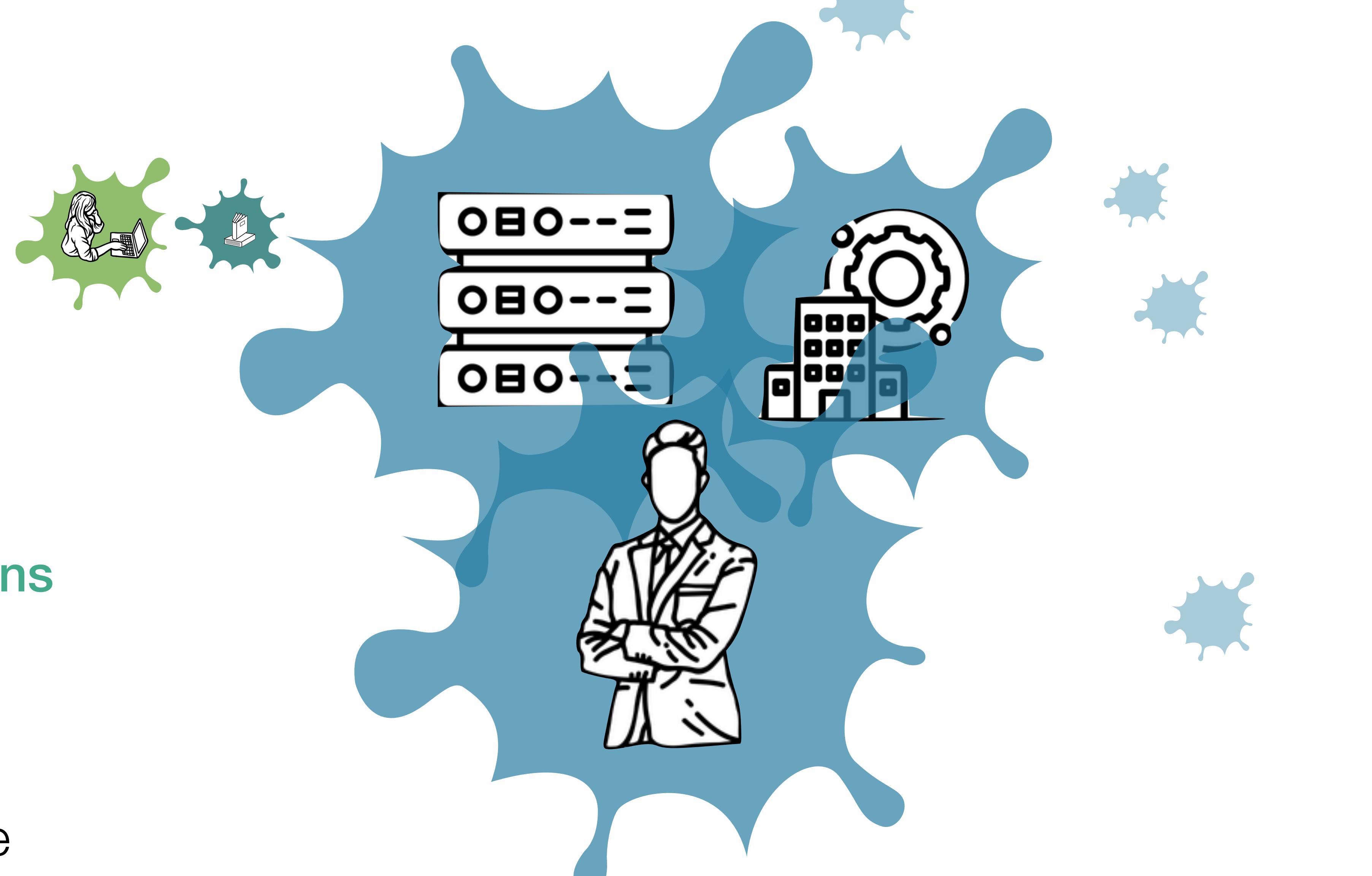


Principles

Creative Chain
Respect
Human Element

Realistic Expectations

Lack of Control
Industry Impacts
Interpretation of Scale



Should MIT Press enter into AI licensing deals?

A survey of over 800 MIT Press authors.



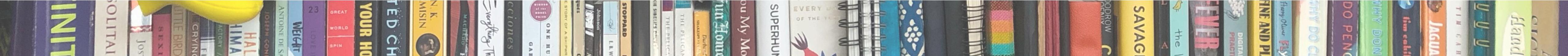
Scholarly Values

"Yes, I view it as an opportunity for the work to be integrated into a **universal knowledge bank** that can be synthesized with other works for positive benefit." 378A

"**Regulations** that can protect the livelihoods of authors and publishers are useful even if difficult to devise and difficult to monitor." 484B

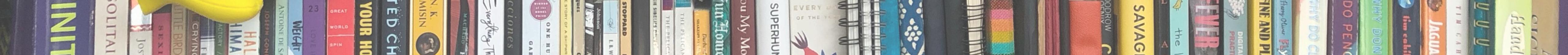
Exploitation & Harm

"They are short-sighted deals based on near-term gains for publishers in exchange for greatly weakening publishers ... in the mid-term, while also potentially **threatening its very foundations** and existence ... in the long-term." 609B





What is the role of LLMs? And who gets to decide?

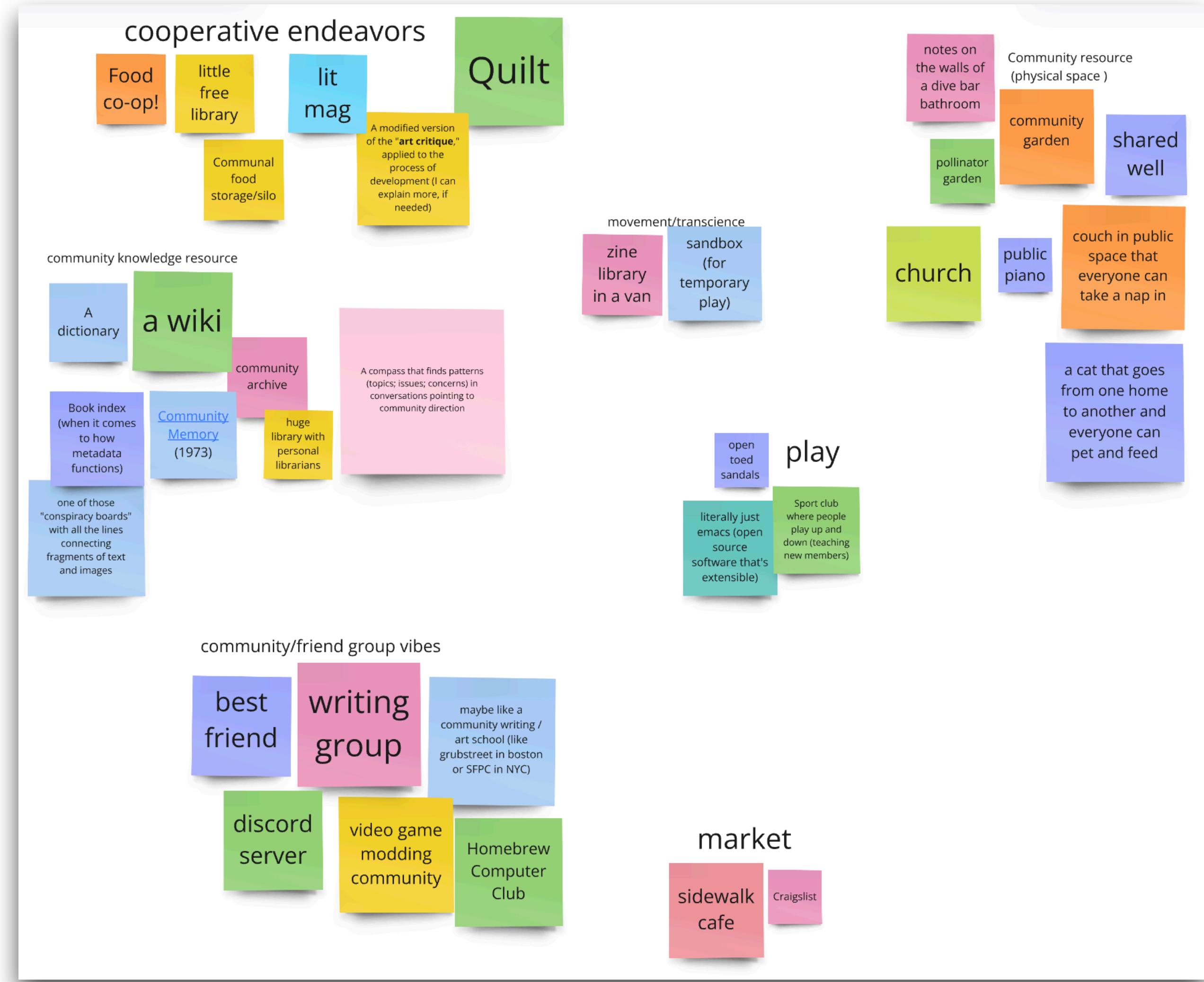


“You should **work with other presses** to develop and implement a unified, expert-informed, non-exploitative strategy such that tech companies can't play presses off against each other.” 670B

Are we just talking about... collective action?



Metaphors for Models

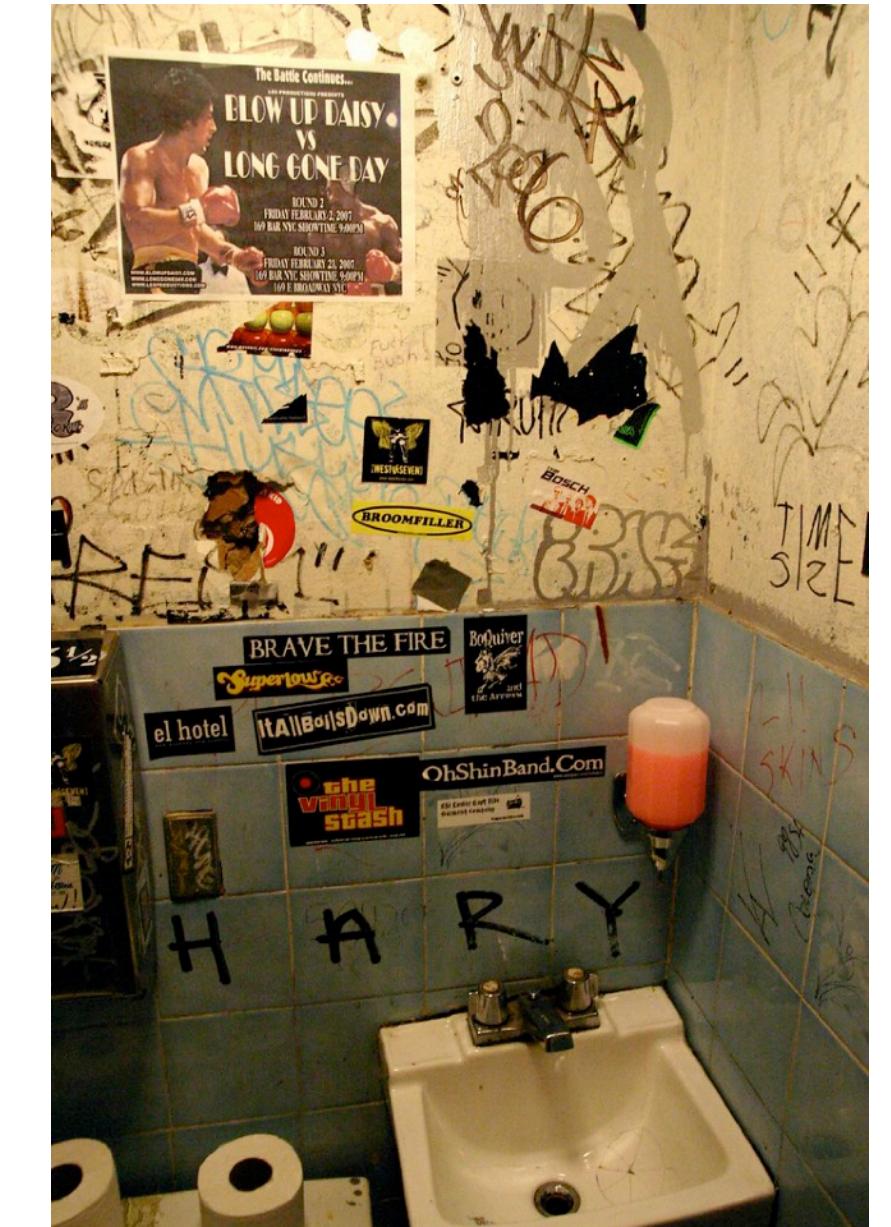


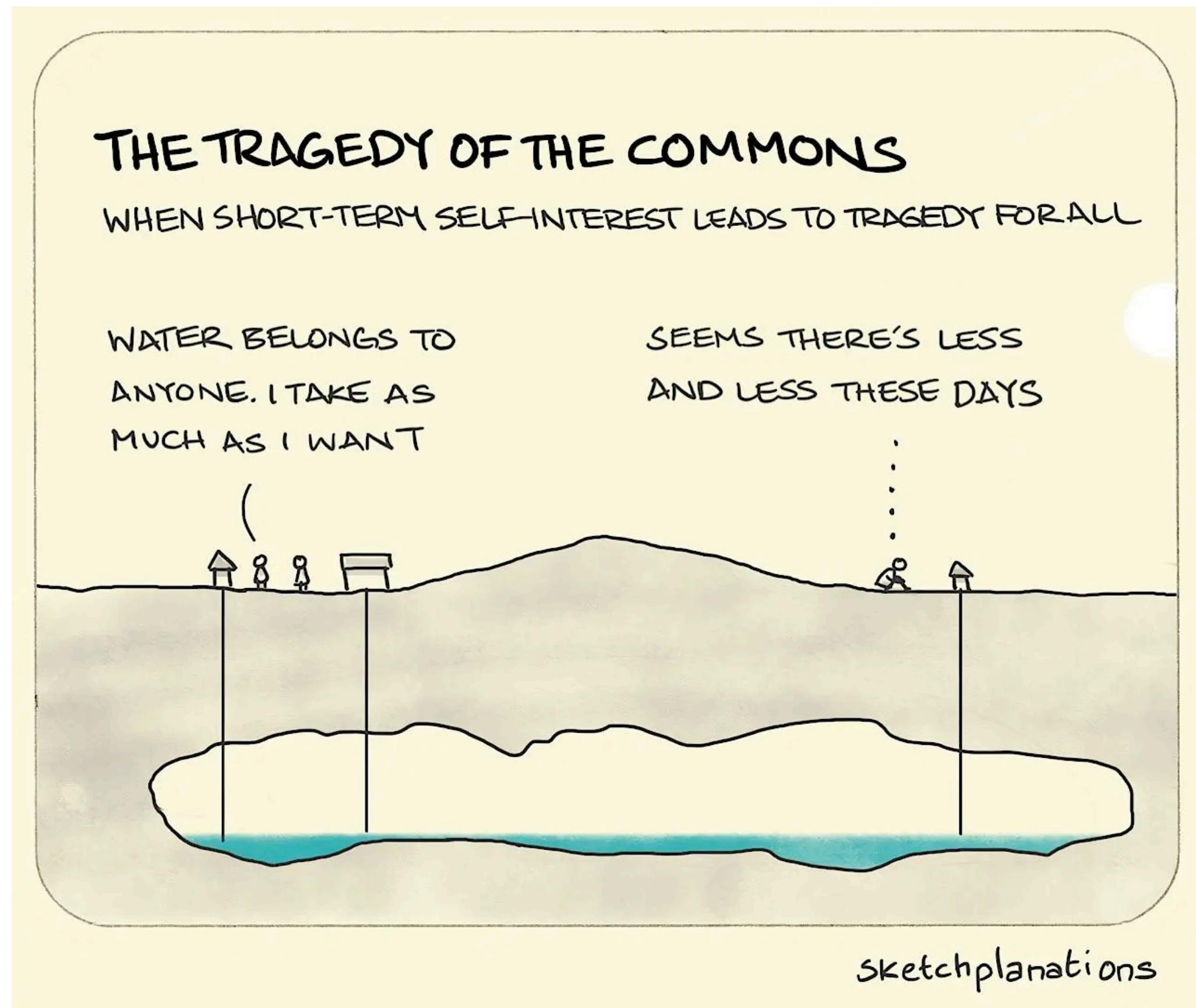
- Think through the 4 C's:

- Consent
- Control
- Credit
- Compensation

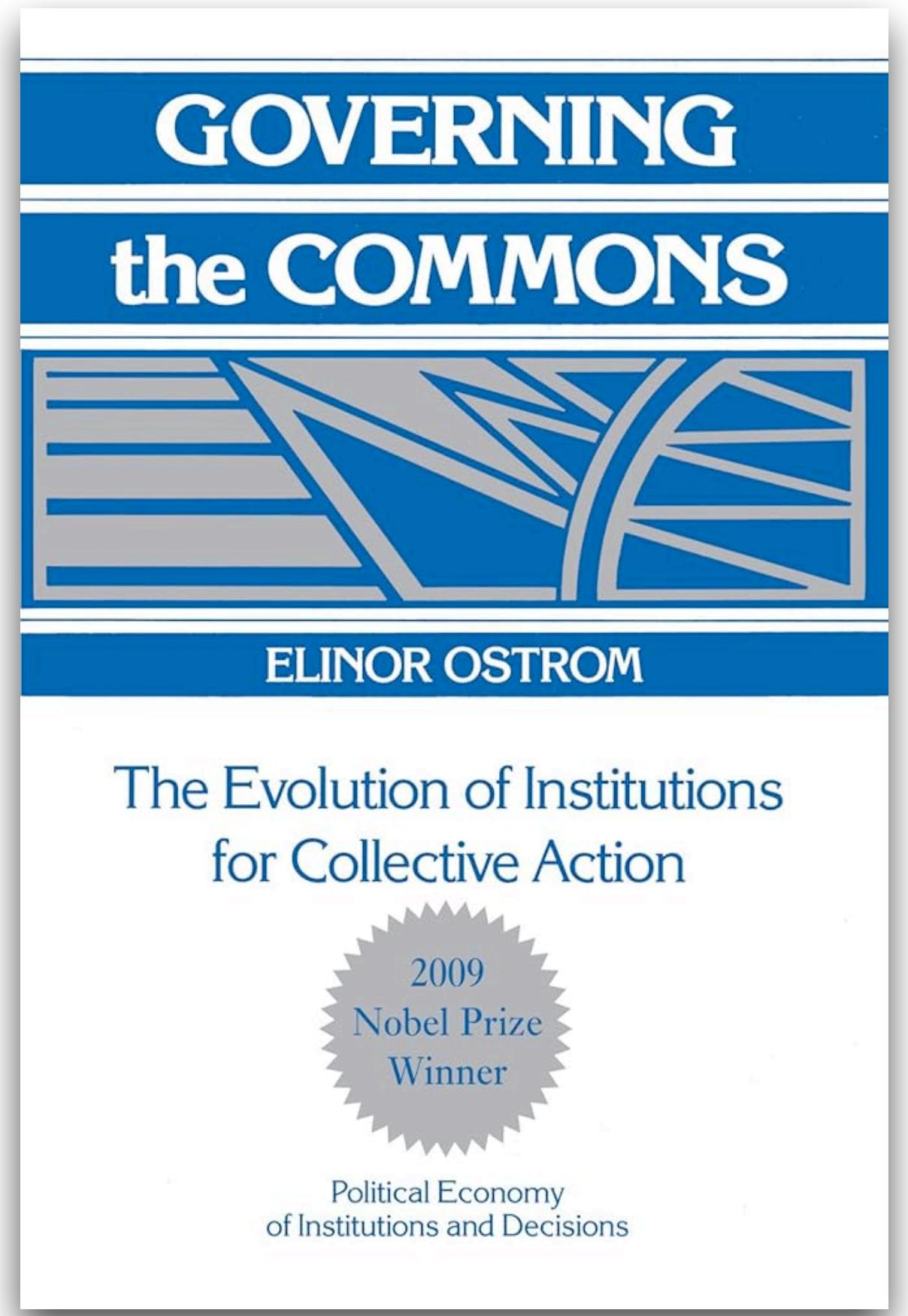
Metaphors for Models

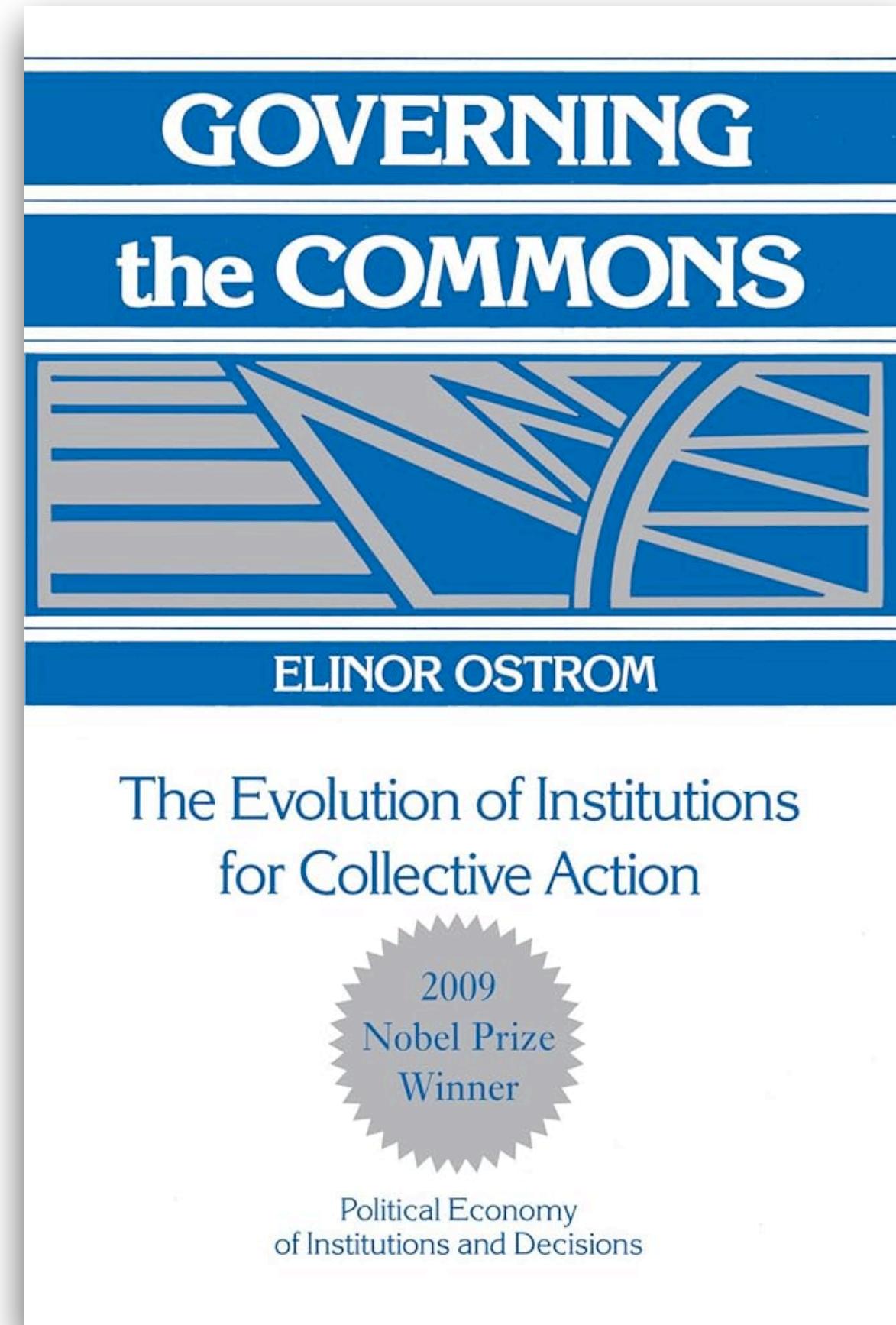
Quilt



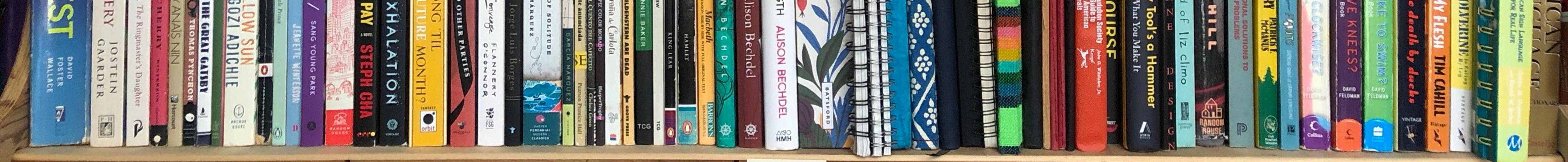


<https://sketchplanations.com/the-tragedy-of-the-commons>





- digital commons have poorly defined boundaries
- unclear what local knowledge means for digital commons
- digital commons lack agreed-upon monitoring protocols
- many problems come from externalities



How AI Writing Support at Different Stages Alters Ownership



Paramveer Dhillon

Information School

University of Michigan



Tao Long

Computer Science

Columbia University

Creative Writers' Attitudes on Writing as Training Data for LLMs



Meera Desai

Information School

University of Michigan



Carly Schnitzler

University Writing Program

Johns Hopkins



Nayun Eom

Sociology

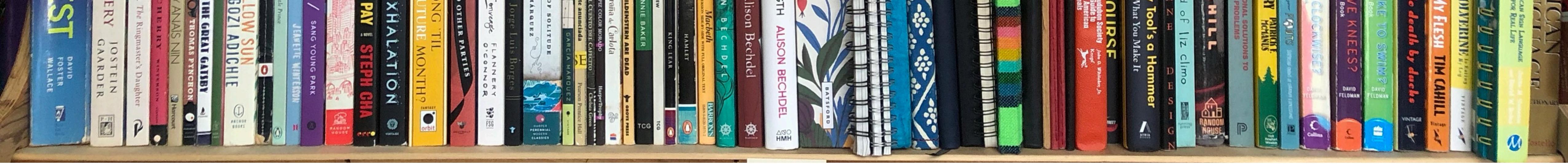
Harvard University



Jack Cushman Library Innovation Lab Harvard University



Elena Glassman
Computer Science
Harvard University



Who Owns the Future* of AI?

How and why ownership matters for human-AI collaboration.

- ▶ When should AI make writing easier? Can we create "productive struggle"?
- ▶ How should we balance openness while protecting writing-as-data?
- ▶ Can we make AI models by and for creative communities?

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