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National Centre
for Information Support of Research,
Development, and Innovation

Ignore, adopt, or master? Academic support in the AI era

Adam Urban

AI Knowledge Café

September 5, 2025

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AI and its place in research

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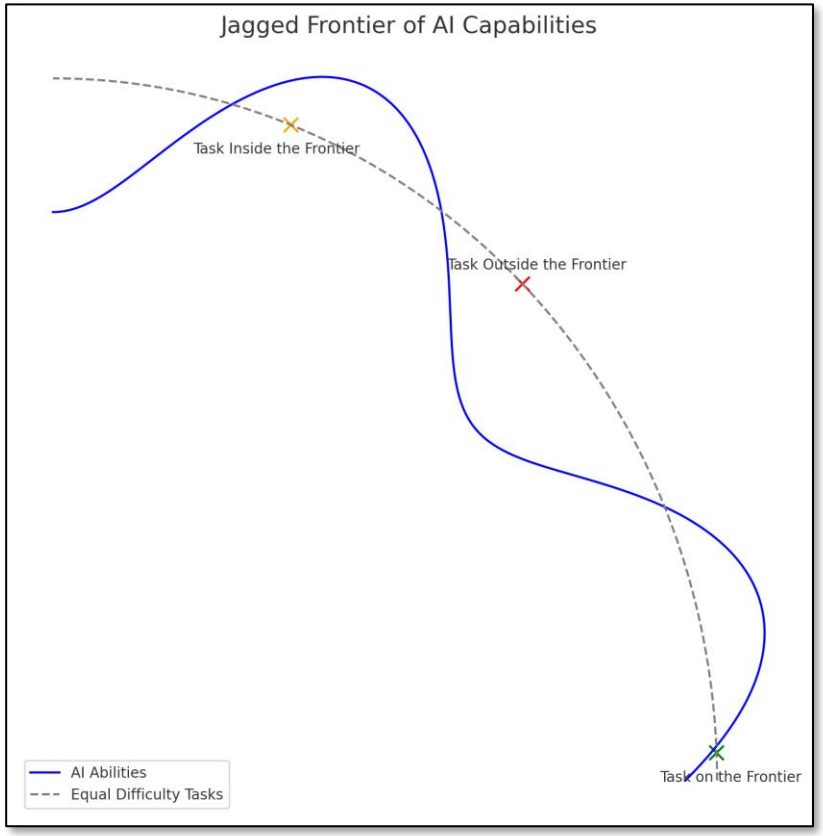
- The use of AI in research is increasing with students and researchers

Brainstorming
Data analysis
Literature review



BUT

- Jagged frontier of AI (Dell'Acqua et al., 2023)
- Overreliance: Learning or effectivity**?**
- Data privacy and tool inaccuracy (hallucinations)
- Unclear or conflicting guidelines

AI and its impact on academia

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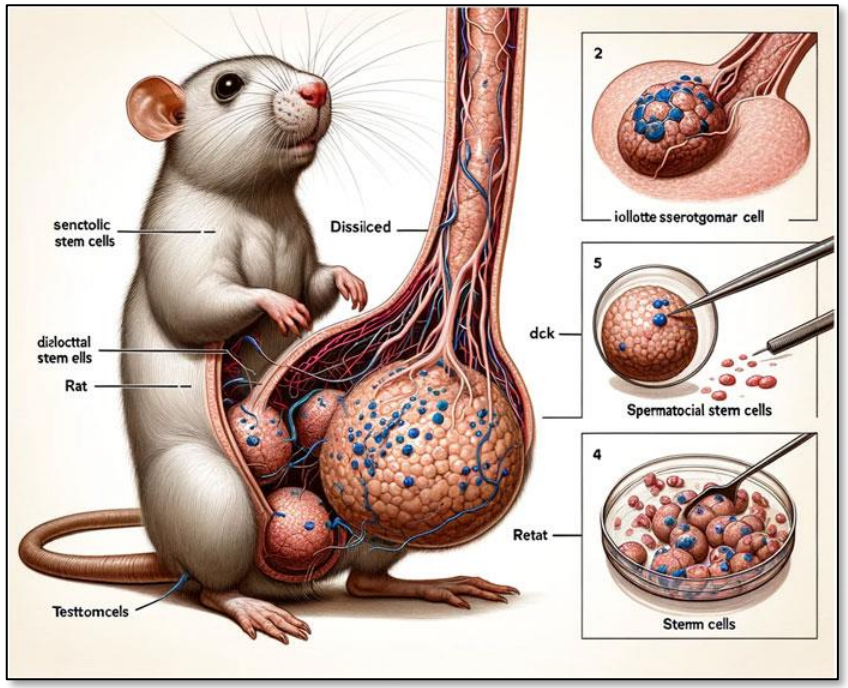
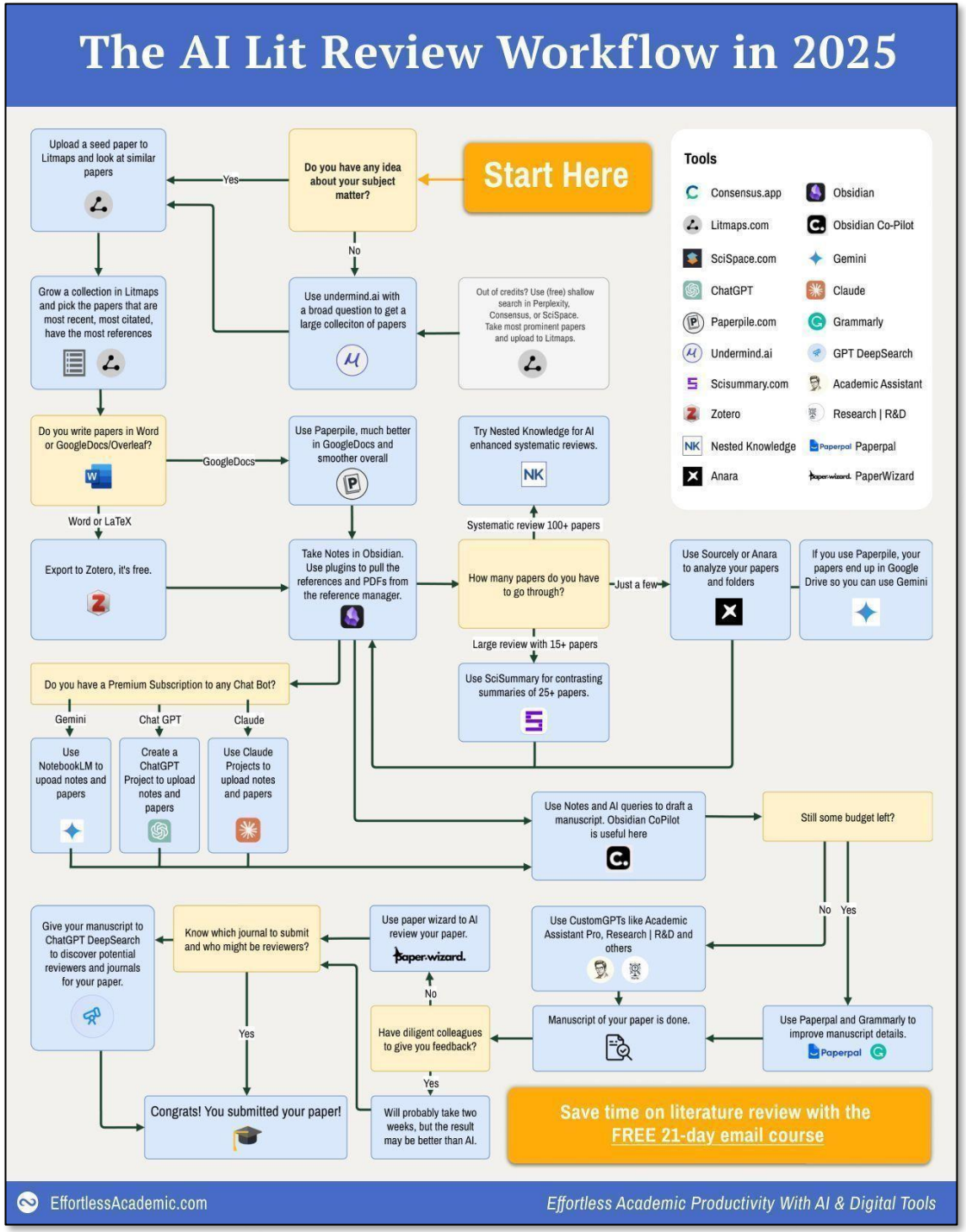
- Advances in research possibilities
- Issues of ethics and academic misconduct
- Impact on information searching and processing
- Changes in the workflow:



(Guo et al., 2024, p. 4)

Traditional – Hybrid – AI-driven

Centaurs x cyborgs


The AI Lit Review Workflow in 2025
Start Here
Do you have any idea about your subject matter?
Yes
No
Upload a seed paper to Litmaps and look at similar papers
Grow a collection in Litmaps and pick the papers that are most recent, most citated, have the most references
Use undermind.ai with a broad question to get a large colleciton of papers
Out of credits? Use (free) shallow search in Perplexity, Consensus, or SciSpace. Take most prominent papers and upload to Litmaps.
Tools
Consensus.app
Litmaps.com
SciSpace.com
ChatGPT
Paperpile.com
Undermind.ai
Scisummary.com
Zotero
Nested Knowledge
Anara
Obsidian
Obsidian Co-Pilot
Gemini
Claude
Grammarly
GPT DeepSearch
Academic Assistant
Research | R&D
Paperpal
PaperWizard
Do you write papers in Word or GoogleDocs/Overleaf?
GoogleDocs
Word or LaTeX
Use Paperpile, much better in GoogleDocs and smoother overall
Try Nested Knowledge for AI enhanced systematic reviews.
Systematic review 100+ papers
Export to Zotero, it's free.
Take Notes in Obsidian. Use plugins to pull the references and PDFs from the reference manager.
How many papers do you have to go through?
Just a few
Large review with 15+ papers
Use Sourcely or Anara to analyze your papers and folders
If you use Paperpile, your papers end up in Google Drive so you can use Gemini
Use SciSummary for contrasting summaries of 25+ papers.
Do you have a Premium Subscription to any Chat Bot?
Gemini
Chat GPT
Claude
Use NotebookLM to upoad notes and papers
Create a ChatGPT Project to upload notes and papers
Use Claude Projects to upload notes and papers
Use Notes and AI queries to draft a manuscript. Obsidian CoPilot is useful here
Still some budget left?
No
Yes
Use CustomGPTs like Academic Assistant Pro, Research | R&D and others
Use Paperpal and Grammarly to improve manuscript details.
Manuscript of your paper is done.
Have diligent colleagues to give you feedback?
No
Yes
Use paper wizard to AI review your paper.
Know which journal to submit and who might be reviewers?
Yes
Give your manuscript to ChatGPT DeepSearch to discover potential reviewers and journals for your paper.
Congrats! You submitted your paper!
Will probably take two weeks, but the result may be better than AI.
Save time on literature review with the FREE 21-day email course
EffortlessAcademic.com
Effortless Academic Productivity With AI & Digital Tools

Use of AI and AI literacy at NTK

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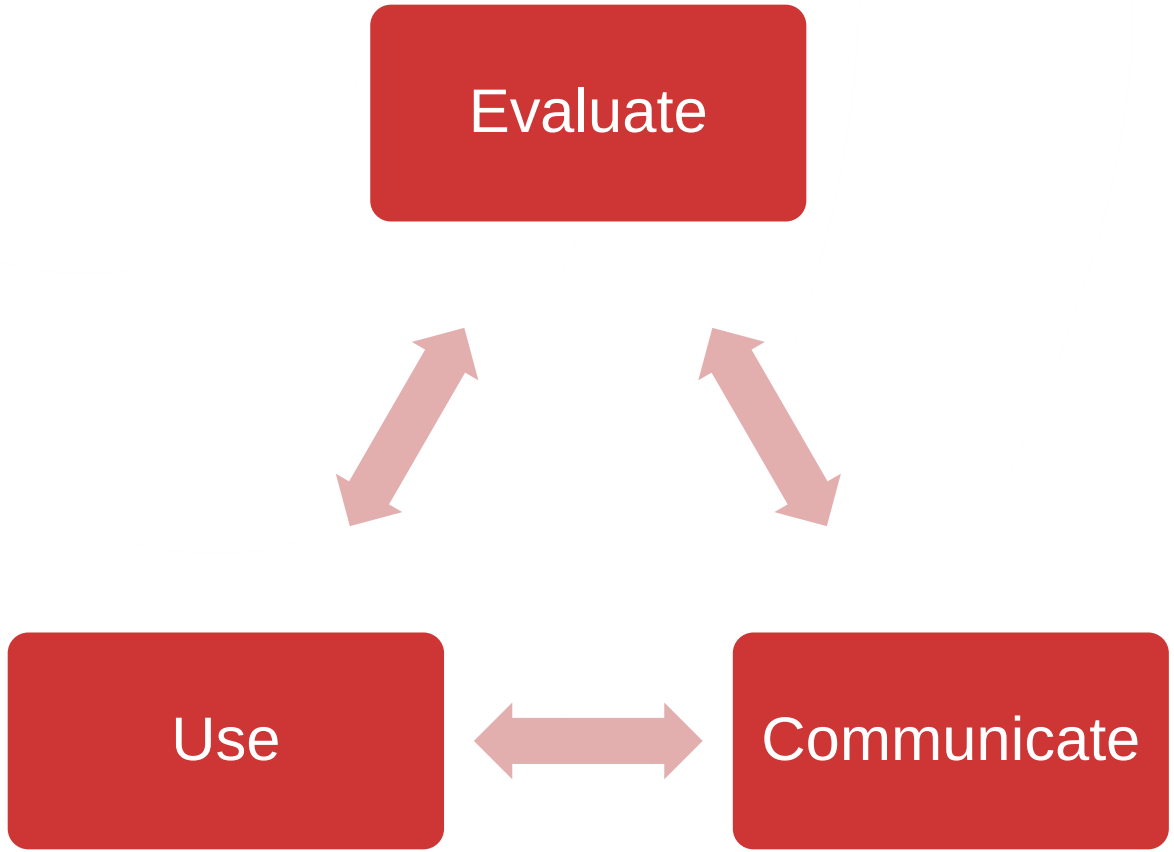

(Long & Magerko, 2020)

Use of AI and AI literacy at NTK

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- LibGuide: AI tools for research
  - List of annotated tools (launched 2023)

ADOPTION (2023-2024)

Research guide: AI tools for research

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2023

Searching for literature | Mapping literature | AI chatbots | Text analysis | AI detectors

You will find a selection of mapping tools in this section. If you have already created a corpus of literature that you draw on, they can help you navigate it better, as well as recommend other resources based on it.

Research Rabbit

Searching either the Semantic Scholar or the PubMed database, Research Rabbit makes suggestions based on the sources that you place into a collection. Mapping connections between the papers you select, it recommends additional results of similar research carried out in the field, as well as a list of relevant authors. Collections can be shared and items in them annotated.

Litmaps

Litmaps draws on the Semantic Scholar database and open access metadata from Crossref and OpenAlex. The Seed function maps references and citations of a selected article. Discover connects multiple papers and suggests other similar sources. Map/Visualize creates graphs based on publication dates and citation counts. Visualizations can be adjusted using the mouse, exported, or shared. Additional functions are available in the Litmaps Pro plan.

Inciteful

Inciteful searches several databases to map interconnections between selected papers. The Paper Discovery function allows you to create a collection and then suggests similar sources. You can also narrow down your results using filters and keywords (this is a subscription feature in Litmaps). The Literature Connector function links two publications of your choice based on their citations.

2025

AI ve vzdělávání a výzkumu | AI chatboti | Detekce AI | Vyhledávání | Mapování | Analýza textu | Analýza dat | Zdroje

Mapovací nástroje využívají metadata akademické literatury (citovanost, spoluautorství, klíčová slova, reference či abstrakt) k vytváření citačních grafů a vizualizací vztahů mezi publikacemi. Na rozdíl od nástrojů pro vyhledávání literatury nepracují primárně s plným textem, ale s bibliografickými daty.

Vzhledem k omezenému přístupu k některým databázím **tyto nástroje nenahrazují samotný proces vyhledávání literatury**. Doporučujeme proto nejprve vytvořit vlastní kolekci (collection) literatury tradiční cestou (např. Google Scholar, Web of Science, Scopus) a mapovací nástroje následně využít k orientaci v literatuře a objevování dalších zdrojů.

Pro více informací si neváhejte domluvit konzultaci**, nebo nás kontaktujte** e-mailem.

Inciteful

Inciteful je bezplatný nástroj bez nutnosti přihlášení, který mapuje propojení mezi zvolenými články. Umožňuje vytvořit kolekci a navrhne podobné zdroje nebo propojí dvě libovolně zvolené publikace na základě jejich citací. Oproti ostatním nástrojům poskytuje Inciteful podrobné informace o vytvořené kolekci literatury – nejvíce zastoupení autoři, časopisy či instituce.

Podrobné informace ↓

- **Přístup:** Bez registrace
- **Zpoplatnění:** Plně zdarma
- **Používaná metoda:** Analýza citační sítě (strojové učení), bibliometrie
- **Citační databáze:** OpenAlex, Open Citations, CrossRef, Semantic Scholar
- **Klíčové funkce:** Paper Discovery, Literature Connector, export záznamů (.ris, .bib)
- **Limitace:** Omezené funkce a hloubka analýzy oproti ostatním nástrojům

Spravuje

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Obory

Počítačová grafika, Systematický přehled literatury, Vyhledávání s AI nástroji

Rychlé odkazy

- Nástroje na pomoc při psaní práce v cizím jazyce
- Elektronické zdroje
- Konzultace
- Naši specialisté
- Vyhledávání, citování, publikování
- Průvodci oborem

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- LibGuide: **AI tools for research**
  - List of annotated tools (launched 2023)

- **AI Essentials for Academia**
  - 101 participants for the first run (221 registered)
- **Access to Scite_** for NTK-registered users

- Paid version of **ChatGPT Teams** for employees
- AI working group → AI principles

MASTERING (2024–)

Developing AI literacy of librarians

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→ **Pilot study at NTK**

- 12 semi-structured interviews with information specialists (2/3 of the department)
  - Use of AI
  - Individual barriers
  - Structural barriers

"…it is essential for library workers to **not only understand how GenAI tools work** (LLMs, foundation models, black box, algorithms, data scraping, etc.), **but also have hands-on experience with them**." (Bridges et al., 2024)

Associated challenges & needs

'I think we are **quite disadvantaged** in this respect. And that's where we can often find ourselves **a step or several steps behind** patrons. If they are used to working with the more advanced version, **it's difficult for us to say anything about it when we don't have the experience ourselves**.'

Libraries' mission in the AI era

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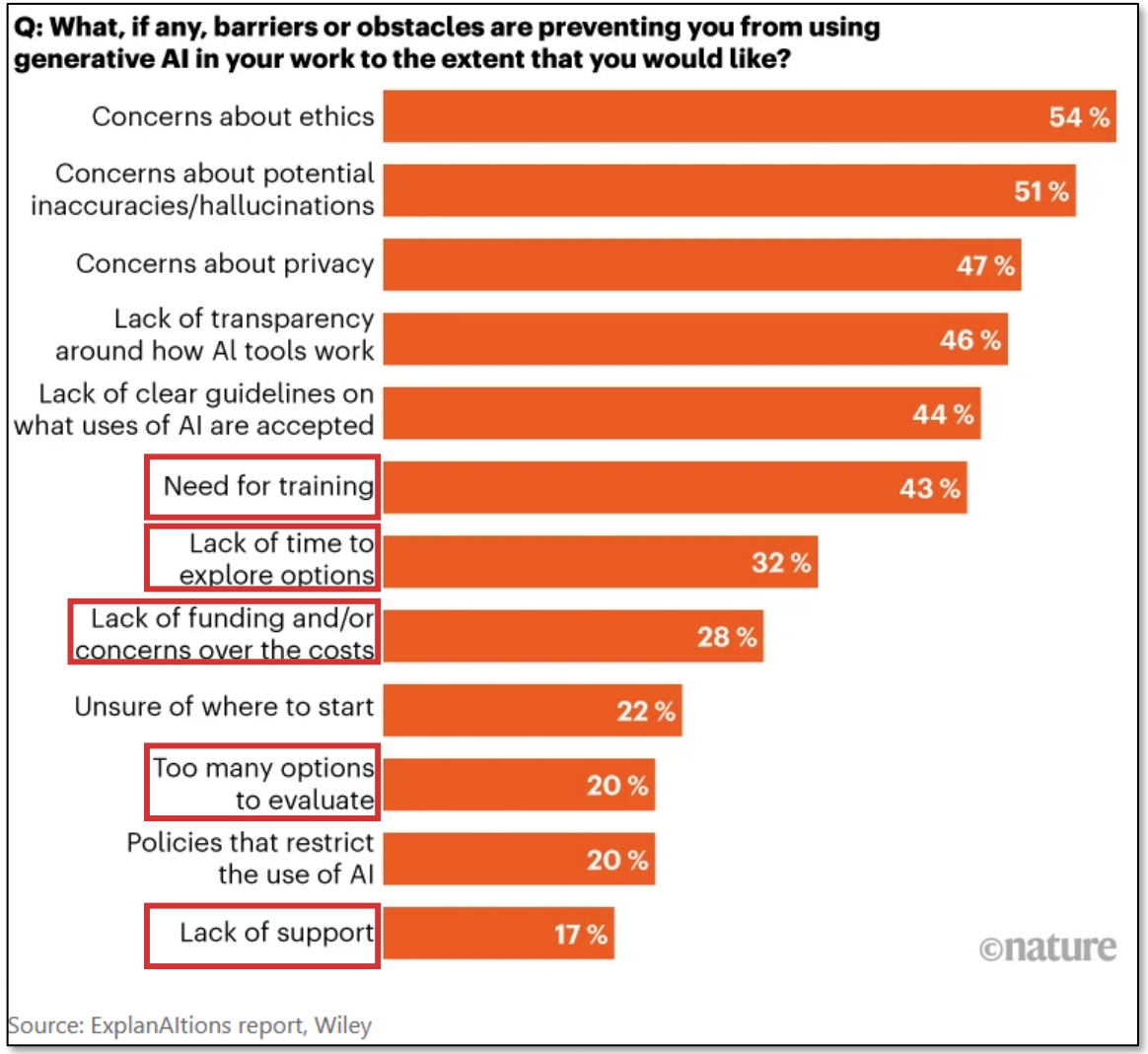
- Academic libraries as an active partner
- Reliable source of information
- Visible to students and researchers



(Hrycyshyn & Eassom, 2025) n = 1 043

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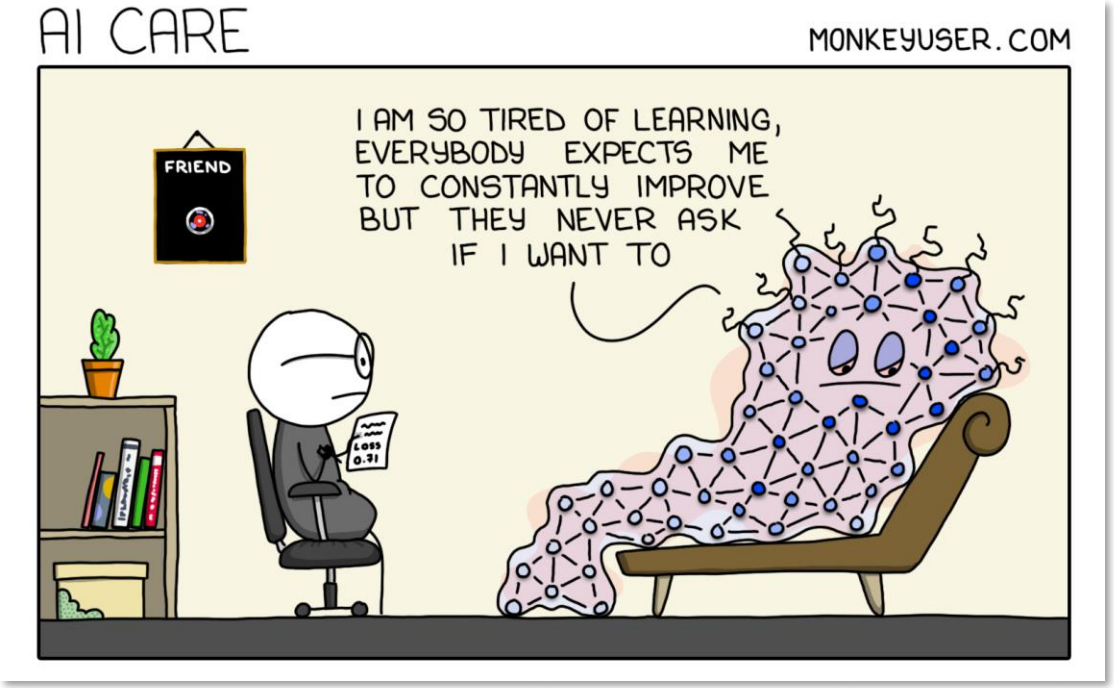
Thank you for your attention



(Monkeyuser, October 12, 2022)

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