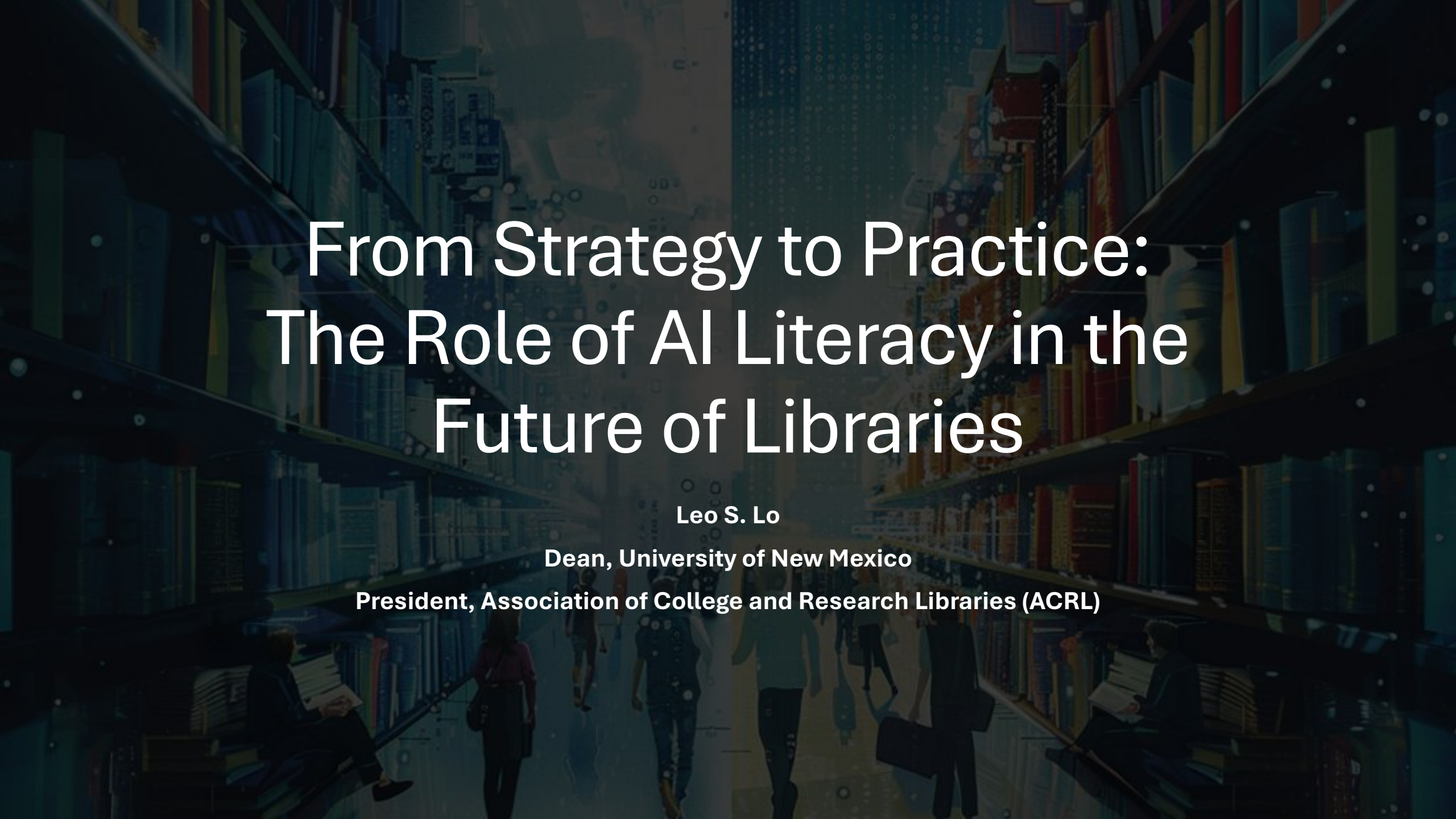


From Strategy to Practice: The Role of AI Literacy in the Future of Libraries

Leo S. Lo

Dean, University of New Mexico

President, Association of College and Research Libraries (ACRL)

Solve the math question
and enter the result below

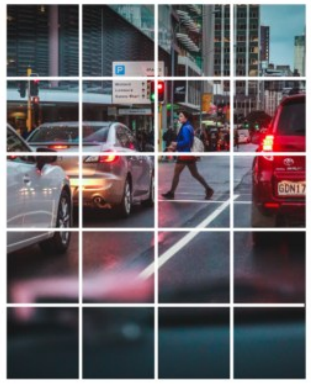
23 - 7 =

enter result SUMIT

To continue, type the characters you see in the picture.

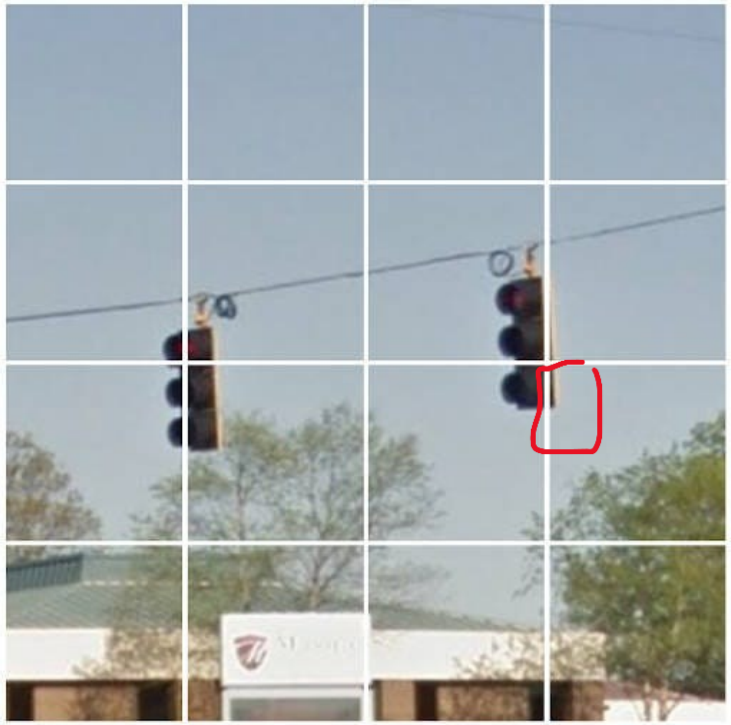
enter result SUMIT

Select all squares with
HUMAN



SUMIT

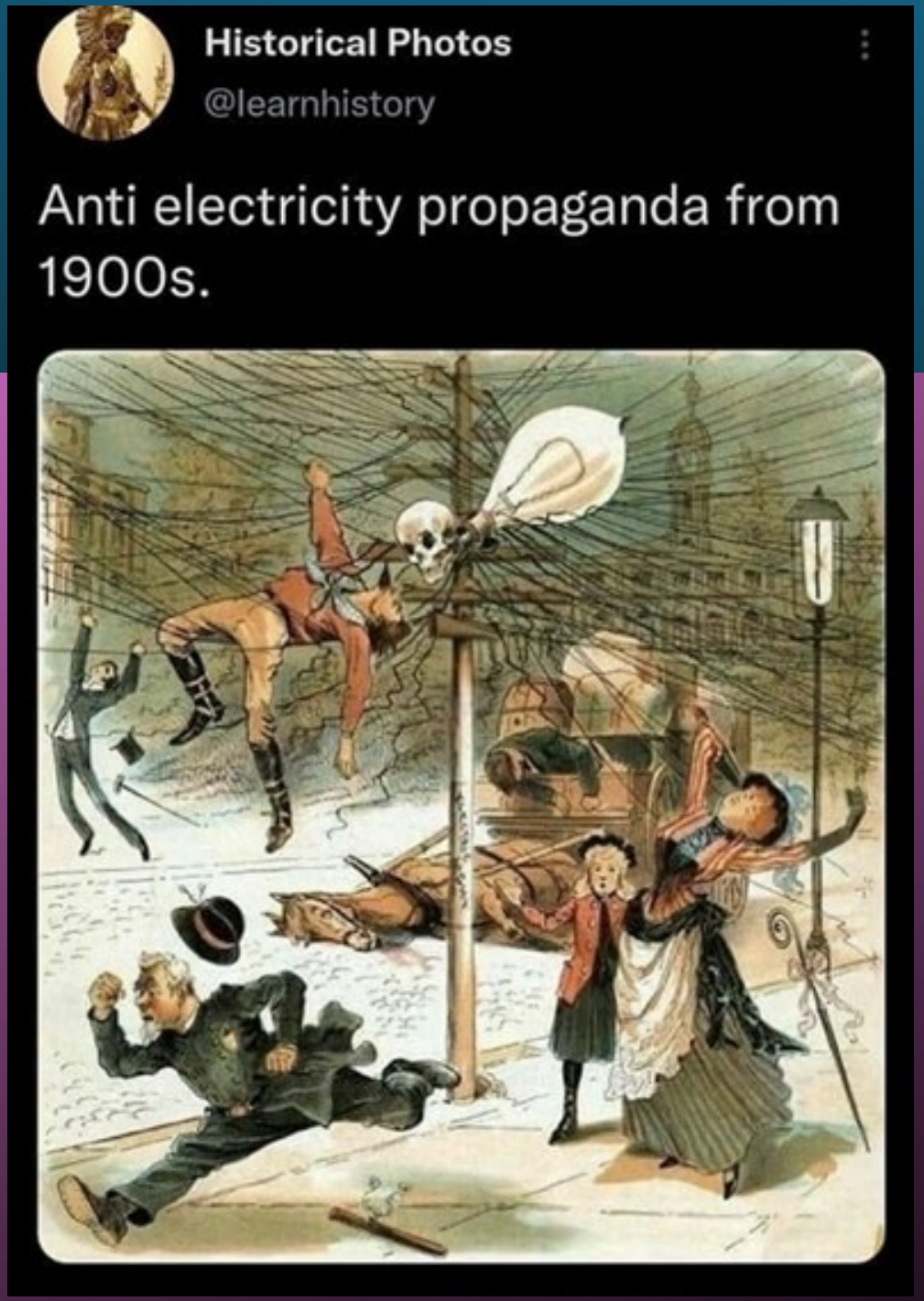
Select all squares with
traffic lights
If there are none, click skip



SKIP

Historical Parallels

https://doi.org/10.1108/DTS-08-2024-101


Historical Photos
@learnhistory
Anti electricity propaganda from 1900s.

Powerful, but there are issues

ChatGPT passes exams from law and business schools

By Samantha Murphy Kelly, CNN Business
Updated 1:35 PM EST, Thu January 26, 2023

HOME › HEALTH

After passing another medical exam, ChatGPT is moving one step closer to ChatMD

Hilary Brueck May 16, 2023, 1:10 PM MDT

ARTIFICIAL INTELLIGENCE / TECH / LAW

Getty Images sues AI art generator Stable Diffusion in the US for copyright infringement

An illustration from Getty Images' lawsuit, showing an original photograph and a similar image (complete with Getty Images watermark) generated by Stable Diffusion. Image: Getty Images

/ Getty Images has filed a case against Stability AI, alleging that the company copied 12 million images to train its AI model 'without permission … or compensation.'

By James Vincent, a senior reporter who has covered AI, robotics, and more for eight years at The Verge.

Feb 6, 2023, 9:56 AM MST | 16 Comments / 16 New

BUSINESS

Sarah Silverman and novelists sue ChatGPT-maker OpenAI for ingesting their books

AI's Growing Role in Content Creation

- AI models trained on vast datasets.
- Generates text, images, music, and more.
- Blurs lines between original and derivative works.


AI and Copyright:
Who Owns AI-Generated Content?

The Chain of Title Problem: Why AI Copyright Cases Are Hard to Win

AI Can Copy You… and You Can’t Prove It

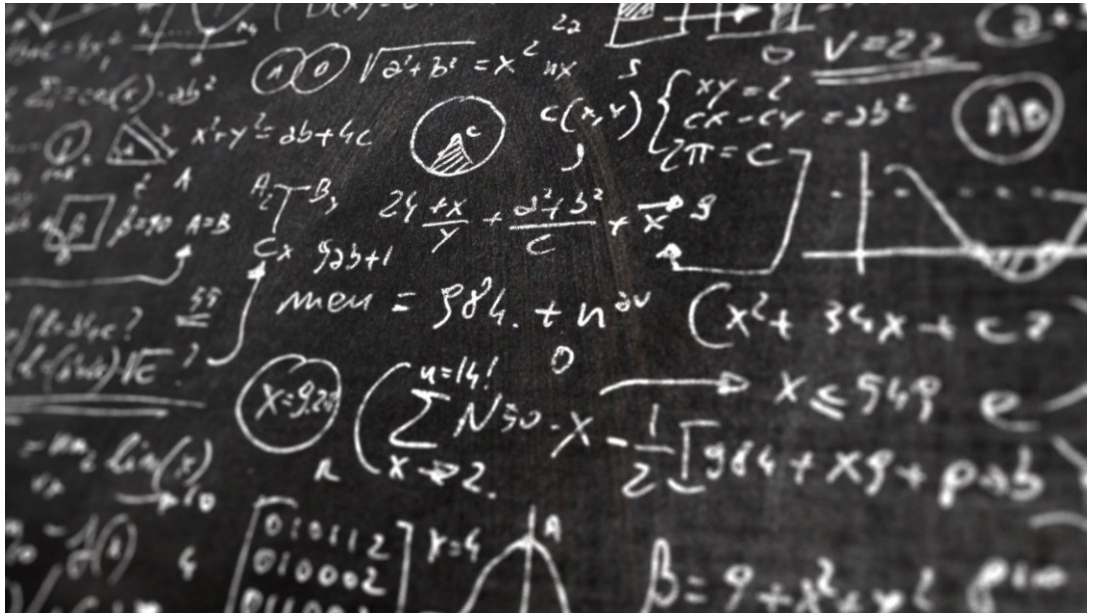
- Traditional copyright requires a clear chain of title.
- AI-generated content has no source tracking—no legal “paper trail.”
- AI companies argue: “Coincidence, not copying.”
- Creators must prove AI outputs are directly influenced by their work—which is nearly impossible.

What is Chain of Title? Why Does It Matter?

✅ The **author wrote the manuscript** and can prove it.
✅ The **music used in the film is properly licensed**.
✅ The **artwork on the book cover has copyright clearance**.

This system ensures that **no one can falsely claim ownership**, and that **companies don’t accidentally infringe on someone else’s rights**.

Now, Compare That to AI-Generated Content



- When an AI generates text, art, or music, it **doesn’t track where it learned those ideas from**.
- AI isn’t like a researcher who keeps notes and citations—it’s more like a student who absorbs everything but forgets where they learned it.
- AI doesn’t "create"—it **remixes** existing works.
- AI models are trained on billions of texts, images, and sounds—often without permission.
- The result? Content that blurs the line **between originality and plagiarism.**

Real-World Example: The New York Times vs. OpenAI

The New York Times has to prove:"

✅ ChatGPT **was trained on NYT articles**.
✅ The AI **used NYT articles in a way that violates fair use**.
✅ The AI **generated outputs that directly harm NYT's business**.

OpenAI's defense:

- Our model doesn't remember specific training data.
- Even if the output looks similar, it could have come from anywhere.
- And because OpenAI doesn't provide a record of what data influenced its responses, proving infringement is extremely difficult.

The Times Sues OpenAI and Microsoft Over A.I. Use of Copyrighted Work

Millions of articles from The New York Times were used to train chatbots that now compete with it, the lawsuit said.

A lawsuit by The New York Times could test the emerging legal contours of generative A.I. technologies. Sasha Maslov for The New York Times

July 29, 2024

Taylor & Francis AI Deal Sets ‘Worrying Precedent’ for Academic Publishing

The publisher didn’t give authors any notice before selling access to its data to Microsoft for $10 million. The agreement could improve academic research, but it further entrenches the predatory nature of academic publishing, experts say.

ARTIFICIAL INTELLIGENCE / TECH

HarperCollins is asking authors to license their books for AI training

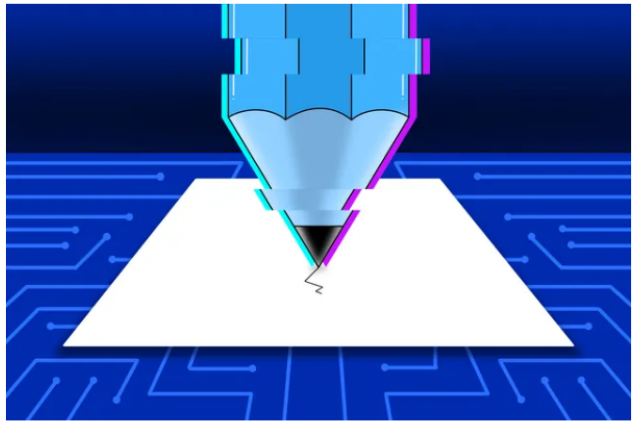


Image: Hugo Herrera / The Verge

/ Authors would have to opt-in to the agreement with an unnamed AI firm, with one reporting an offer of $2,500 to license their book for three years.

By Jay Peters, a news editor who writes about technology, video games, and virtual worlds. He’s submitted several accepted emoji proposals to the Unicode Consortium.

Nov 18, 2024, 2:25 PM MST

9 Comments (9 New)

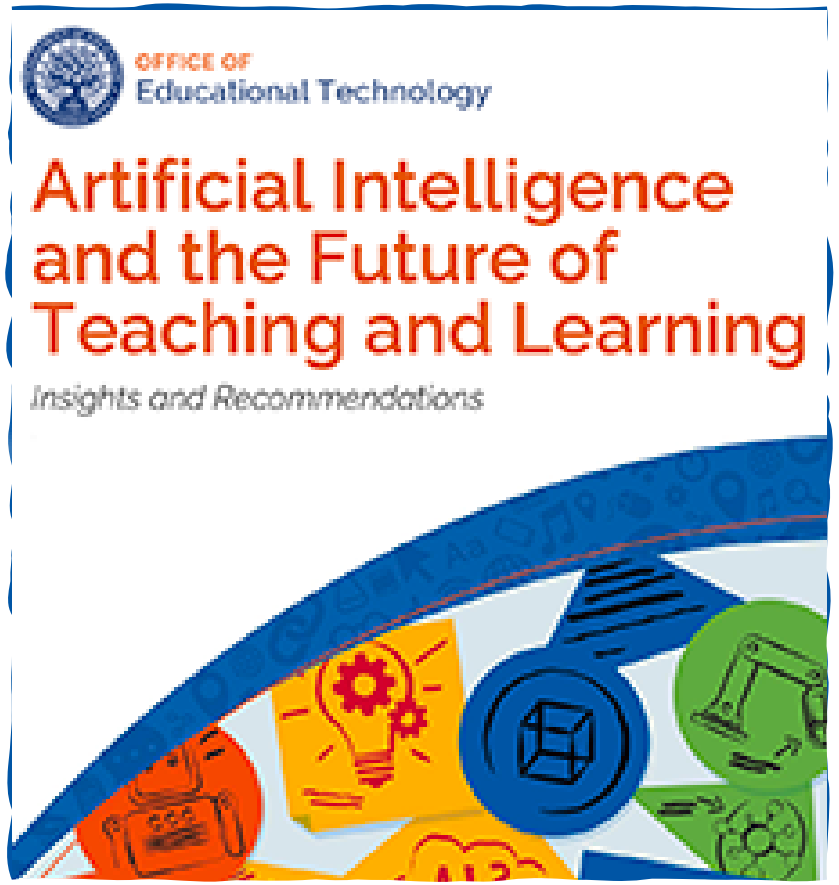
Licensing Content to AI Companies

Publishers like *HarperCollins*, *Springer*, and *Condé Nast* are licensing archives to train generative AI models.

Deals include revenue-sharing agreements with AI firms like Microsoft and OpenAI.

Content types range from books and articles to proprietary datasets.

Dept of Education Report on AI: Key Points



- **Importance of AI literacy for educators, including librarians**
- Need for educator involvement in AI design and implementation
- Preparing for and addressing AI-related issues like bias
- Developing guidelines for ethical AI use

https://www2.ed.gov/documents/ai-report/ai-report.pdf

EU Artificial Intelligence Act

Part of Chapter I: General Provisions

Article 4: AI literacy

Date of entry into force:	According to:	Inherited from:
2 February 2025	Article 113(a)	Chapter I

See here for a full implementation timeline.

SUMMARY +

Providers and deployers of AI systems shall take measures to ensure, to their best extent, a sufficient level of AI literacy of their staff and other persons dealing with the operation and use of AI systems on their behalf, taking into account their technical knowledge, experience, education and training and the context the AI systems are to be used in, and considering the persons or groups of persons on whom the AI systems are to be used.

Technology Feature | Published: 09 August 2024

Quest for AI literacy

Vivien Marx

Nature Methods **21**, 1412–1415 (2024) | Cite this article

8207 Accesses | **38** Altmetric | Metrics

As scientists avidly use, tinker and build with artificial intelligence tools, best practices begin to emerge.

The Stanford Daily

News • Local

New California bill seeks to improve AI literacy in schools

FORBES > INNOVATION > AI

Billions Of People Need To Learn AI Literacy

John Werner Contributor ⓘ

I am an MIT Senior Fellow, 5x-founder & VC investing in AI

Follow

AI Literacy Studies

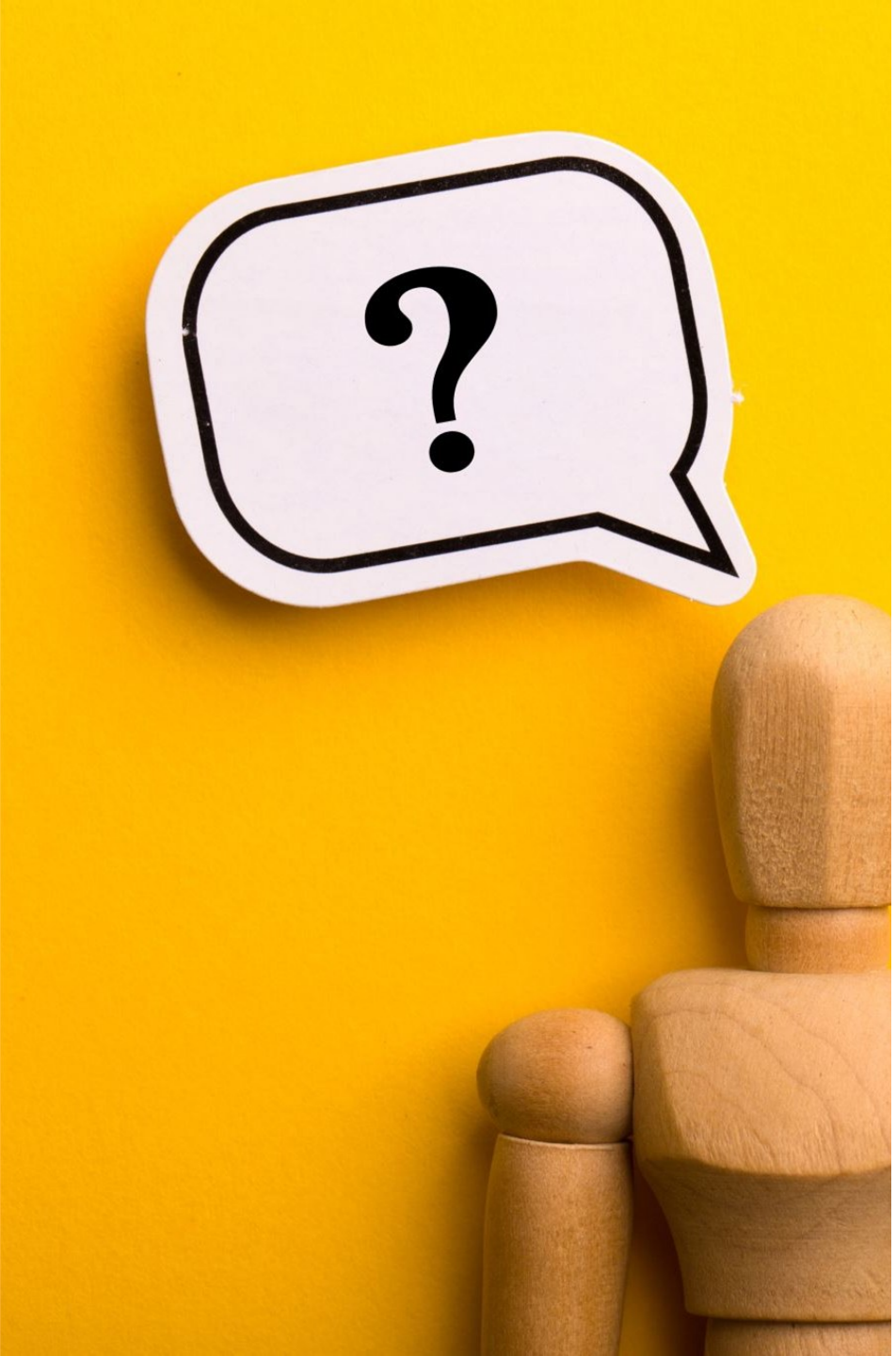
- Two national surveys were conducted in the U.S.:
  - 1st Survey – May 2023
  - 2nd Survey – June/July 2024

- Key Motivations for the Surveys:
  - Understanding the Baseline
  - Identifying Gaps and Opportunities
  - Supporting Professional Development
  - Benchmarking Progress

Key Findings (1st Survey)

- **Below moderate self-rated understanding** of AI concepts and familiarity of generative AI tools:
  - AI Concepts: Mean score: **2.96** (out of 5; mid point being 3)
  - Familiarity of Gen AI tools: Average score: **2.71**
- **Gaps exist**
- Notable **demand for training**
- **Strong emphasis on urgency of addressing ethical and privacy issues**

- https://doi.org/10.5860/crl.85.5.635



Audience Question

Do you have access to premium version of any AI tools?

(e.g. paid versions of ChatGPT, Claude, etc.)

Comparisons	1st Survey (May 2023)	2nd Survey (Jun/Jul 2024)
Understanding of AI Concepts	2.96 (3 being the mid-point; out of 5)	**3.34** (13% higher)
Familiarity of Gen AI Tools	2.71	**3.14** (16% higher)
Adoption of Premium AI Tools	7.95%	**18.59%**
Training/Professional Development Participation	34%	**66.12%**
Perceived Benefits of AI	Only a minority strongly agreeing that AI could be beneficial.	A larger majority agreeing that AI has the potential to significantly benefit library operation

1st Survey (May 2023)
AI Literacy among Academic Library Employees

Comparisons	Have not participated in training on Gen AI (66.5% of respondents)	Have participated in **training** on Gen AI (33.5% of respondents)
Understanding of AI Concepts	2.91 (3 being the mid-point; out of 5)	**3.07** (5.5% higher)
Familiarity of Gen AI Tools	2.61	**3.00** (15% higher)

Comparisons	Never paid for Premium Versions of AI tools (92% of respondents)	Have paid for **Premium Versions** of AI tools (only 8% of respondents)
Understanding of AI Concepts	2.92 (3 being the mid-point; out of 5)	**3.60** (23% higher)
Familiarity of Gen AI Tools	2.65	**3.70** (40% higher)

2nd Survey (June/July 2024) – Barriers

Barriers	Description	Impact
Access to Tools	Limited availability of advanced AI tools, particularly in institutions without institutional subscriptions.	Hinders full engagement with AI technologies, leading to **reliance on limited, free versions**.
Knowledge Gaps	Lack of structured training, leading to self-directed learning.	**Fragmented knowledge**, reduced confidence in tool use.
Time Constraints	Difficulty balancing current workload with the need to learn new technologies, with little time allocated for professional development.	**AI literacy takes a backseat to immediate tasks**, slowing skill development.
Institutional Issues	Lack of support from leadership and cultural resistance to adopting new technologies, including fear of AI replacing traditional roles.	Stifles innovation and creates **an environment where staff are hesitant to explore new technologies**.
Personal Reluctance	Technological anxiety and resistance to change, with some staff preferring familiar methods over learning new technologies.	Causes **avoidance and delays** in skill development.

INSIDE HIGHER ED

February 10, 2025

Report: Defining AI Literacy for Librarians

A new guide provides a framework for academic libraries to understand artificial intelligence and how they can take a leading role in developing AI literacy programs.

By Ashley Mowreader

College & Research Libraries News

AI Literacy: A Guide for Academic Libraries

DOI: https://doi.org/10.5860/crln.86.3.120

What is AI Literacy?

"AI literacy is the ability to **understand, use, and think critically** about AI technologies and their **impact on society, ethics, and everyday life**.“

<u>Five Key Components of AI Literacy:</u>

- **Technical Knowledge**: Understanding the basic concepts and functions of AI technologies and how they operate.

- **Ethical Awareness**: Recognizing the ethical challenges and dilemmas that arise from the use of AI.

- **Critical Thinking**: Analyzing AI’s role, benefits, and potential risks in various contexts.

- **Practical Skills**: Applying AI tools and techniques effectively in real-world situations.

- **Societal Impact**: Understanding how AI influences and shapes societal structures, norms, and future developments.

Adult Learning Principles

- Self-Paced and Flexible Learning
- Collaborative Learning
- Learning by Doing
- Practical, Immediate Relevance

University of New Mexico

A Case Study: 2023 Summer GPT-4 Exploration Program
(https://doi.org/10.1016/j.acalib.2024.102883)

GPT-4 Exploration Program

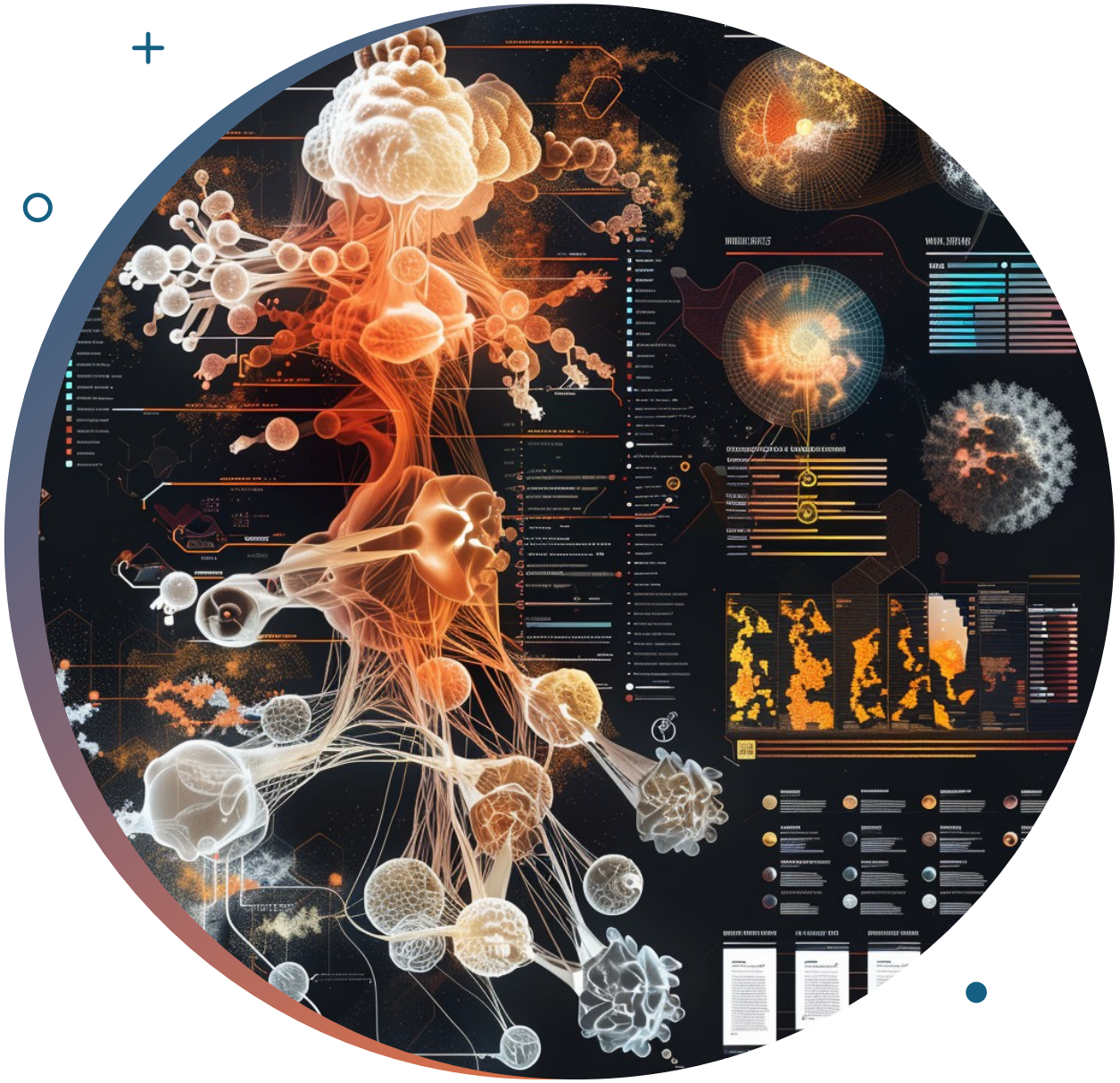
- Pilot Program in 2023 Summer
- Selected **10 volunteers** from different units of the College.
- Participants had **different level of interests, and prior AI knowledge.**
- The College **paid for the subscription fees** of GPT 4 for the participants

Program Structure

Phase 1: Introduction and Training (2 weeks)

Phase 2: Exploration and Experimentation (8 weeks)

Phase 3: Evaluation and Sharing (2 weeks)



Individual Projects

- Developing a Machine-Readable Data Management Plan
- Investigating ChatGPT Hallucinations
- Developing reference FAQs using GPT and compare user feedbacks with the human created FAQs
- Performing administrative tasks such as calendar scheduling, taking meeting notes, etc.
- Training GPT to learn metadata creation

Program Outcomes and Participant Experiences

- **Pre-program** assessments revealed a modest level of familiarity with generative AI tools, with an average rating of 2.36 out of 5,
  - lower than the 2.71 average score in my national AI Literacy study.
- **By the program's conclusion**, the average familiarity rating had risen significantly to 3.63,
  - indicating **a 54% increase** in participants' comfort and proficiency with AI technologies.

Testimonials:

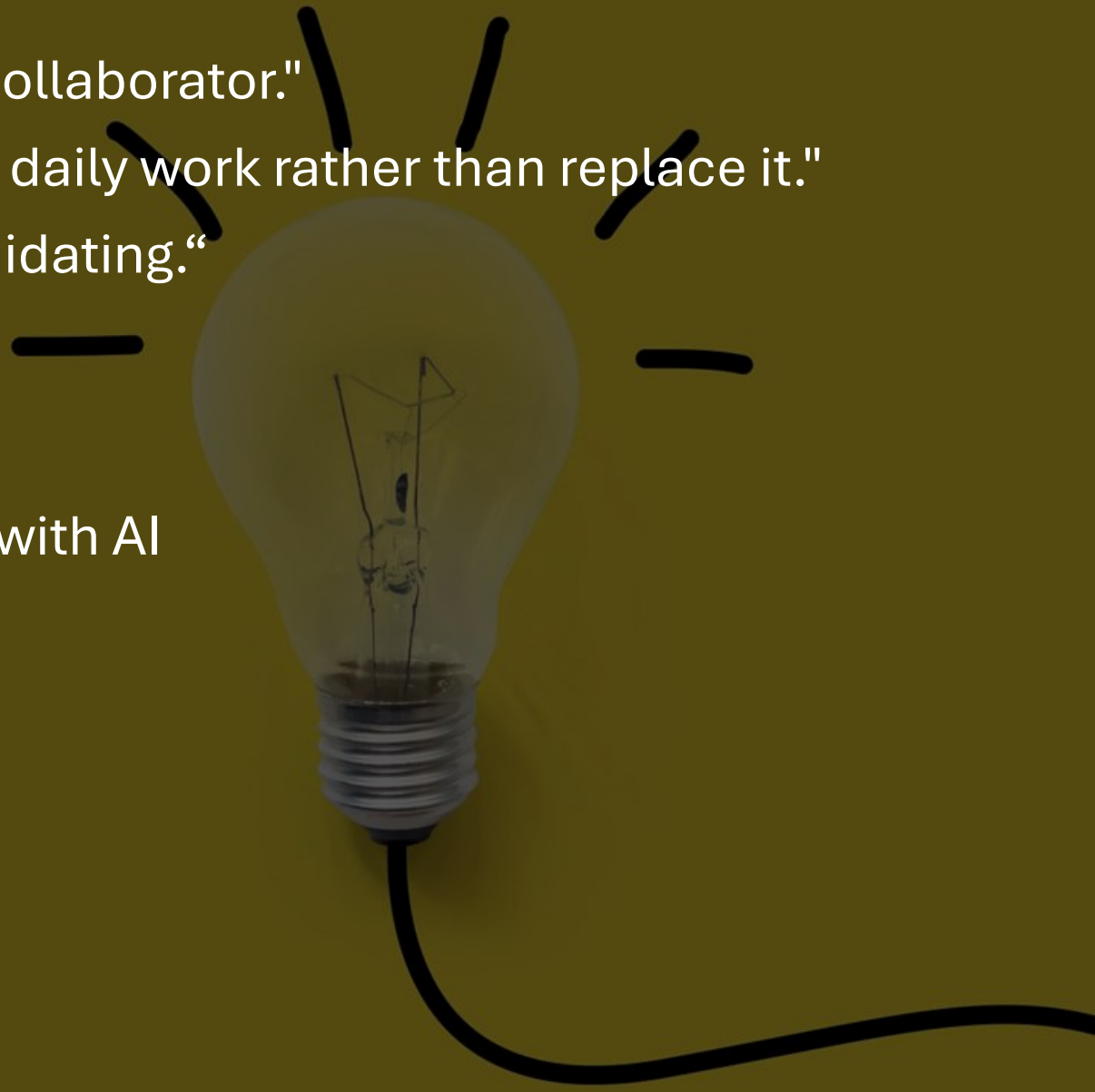
- "This program changed AI from a threat into a collaborator."
- "I gained confidence in using AI to enhance my daily work rather than replace it."
- "The freedom to experiment made AI less intimidating.“

Key Learnings:

- Hands-on experimentation increased comfort with AI
- Prompt practice built critical skills
- Tailored projects amplified engagement

Challenges:

- Data privacy concerns
- Prompt engineering difficult but essential
- AI lacked subject matter expertise



Expanding the Upskilling Program

- We have expanded the GPT-4 Exploration Program format to outside of the college
- **2024 Summer:**
  - **AI for teaching**: GPT-4 for teaching faculty
  - **AI for research**: Scite.ai for faculty
  - **AI for OER** for faculty interested experimenting using AI to develop and enhance OER (https://www.insidehighered.com/news/tech-innovation/digital-publishing/2024/08/09/university-new-mexico-pays-faculty-1000-use-ai)
- **Spring 2025**
  - AI for academic advising: a cohort of 20+ academic advisors to use Gen AI for their work
- **Summer 2025**
  - AI for Humanities Faculty

Next Steps and Contact Info

- **ACRL AI Competencies for Library Workers Task Force**
    - Developing a set of basic but essential AI competencies for library workers.
- **ACRL AI Discussion Group**

*Follow or connect with me on **LinkedIn** for updates on AI and libraries*

https://www.linkedin.com/in/leoslo/