



AI Upskilling Initiatives

Nicholas Taylor

LANL Research Library

NLLC Annual Meeting

19 May 2026

LA-UR-26-24032

Organizationally Transformative or Incremental Impact?

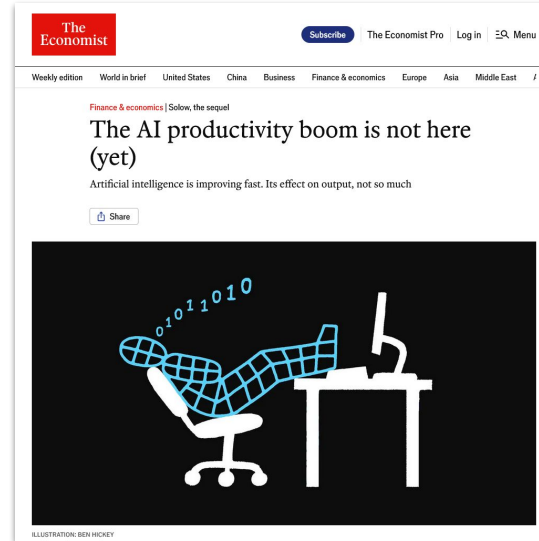


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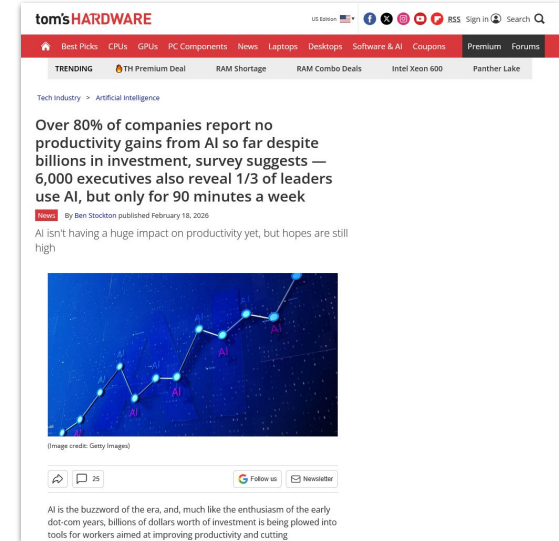
The Potential of the AI-Enabled Organization



Brynjolfsson, Erik. "AI Changed Work Forever in 2025". Ars Technica, 2 Jan. 2026. Accessed 25 Feb. 2026.



"The AI productivity boom is not here (yet)". The Economist, 22 Feb. 2026. Accessed 25 Aug. 2026.



Stockton, Ben. "Over 80% of companies report no productivity gains from AI so far despite billions in investment, survey suggests — 6,000 executives also reveal 1/3 of leaders use AI, but only for 90 minutes a week". Tom's Hardware, 18 Feb. 2026. Accessed 26 Feb. 2026.


The Paradox of AI Productivity

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Firms must invest in real people to gain from AI, EY's Teigland says

By Divya Chowdhury and Maria Martinez

January 22, 2026 12:16 PM MST - Updated January 22, 2026



The logo of Ernst & Young is seen in Zurich, Switzerland November 13, 2020. REUTERS/And Wiegmann [Purchase Licensing Rights](#)

DAVOS, Jan 22 (Reuters) - Companies will not get productivity gains from artificial intelligence unless they invest in real people and redesign how work is done, Julie Teigland, EY's global vice chair, told Reuters on Thursday.

"There is no ROI if you're not willing to change the job descriptions," Teigland said on the sidelines of the World Economic Forum, adding that companies need to adapt processes to capture AI's benefits.

Teigland cited EY work indicating that intensive training can be linked to productivity improvements, saying that around 81 hours of training per employee could translate into roughly 14% weekly productivity gains, if paired with role redesign.

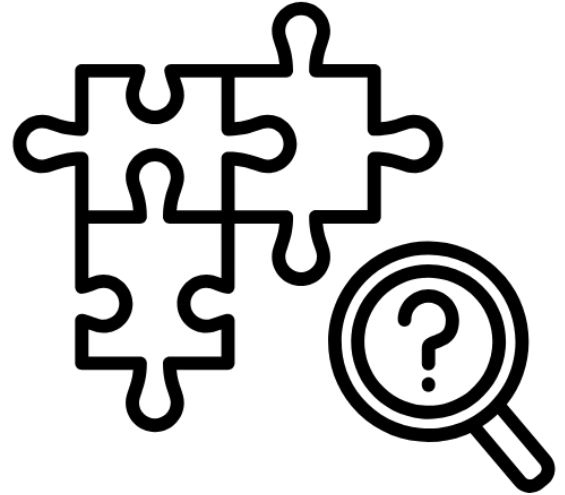
Chowdhury, Divya and Martinez, Maria. ["Firms must invest in real people to gain from AI, EY's Teigland says"](#).

Reuters, 22 Jan. 2026. Accessed 26 Feb. 2026.

Agenda

1. How are we assessing AI skill needs?
2. What AI skills does our workforce need?
3. How has our lab responded so far?
4. What plans are we making for the future?
5. Takeaways and discussion

How are we assessing AI skill needs?



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Signals

- Training event feedback + metrics
- Resource guide analytics
- Reference questions, including requests for tailored training
- Dialogue w/ other AI-focused units
- Tools made available to the Lab
- Tracking external developments



Library AI Research Workshop Series

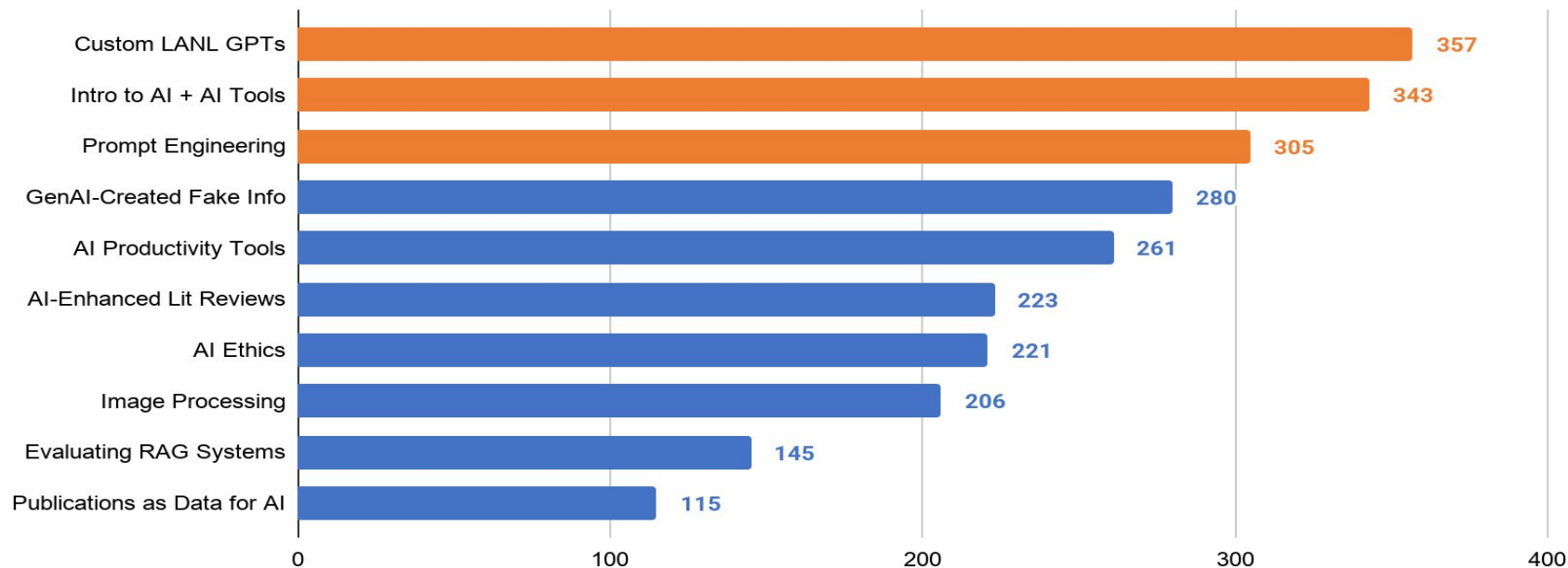
High-level description

- 6 - 10 custom workshops
- Annually in summer, last 2 years
- Beginner, mid-, advanced offerings
- Identify topics for which no other intensive institutional trainings exist
- Delivered by librarians + data scientists, collaborators
- Support entire org - Weapons; Science, Tech, Engineering; Ops

Specific topics

- Introduction to generative AI
- Prompt engineering
- Retrieval-augmented generation
- Custom chatbots
- AI ethics + legal concerns
- AI tools + techniques for research
- Data preprocessing for AI
- Image processing w/ AI
- Publications as data for AI
- Confabulations + scientific integrity

2025 AI Research Workshops - Registrations by Session



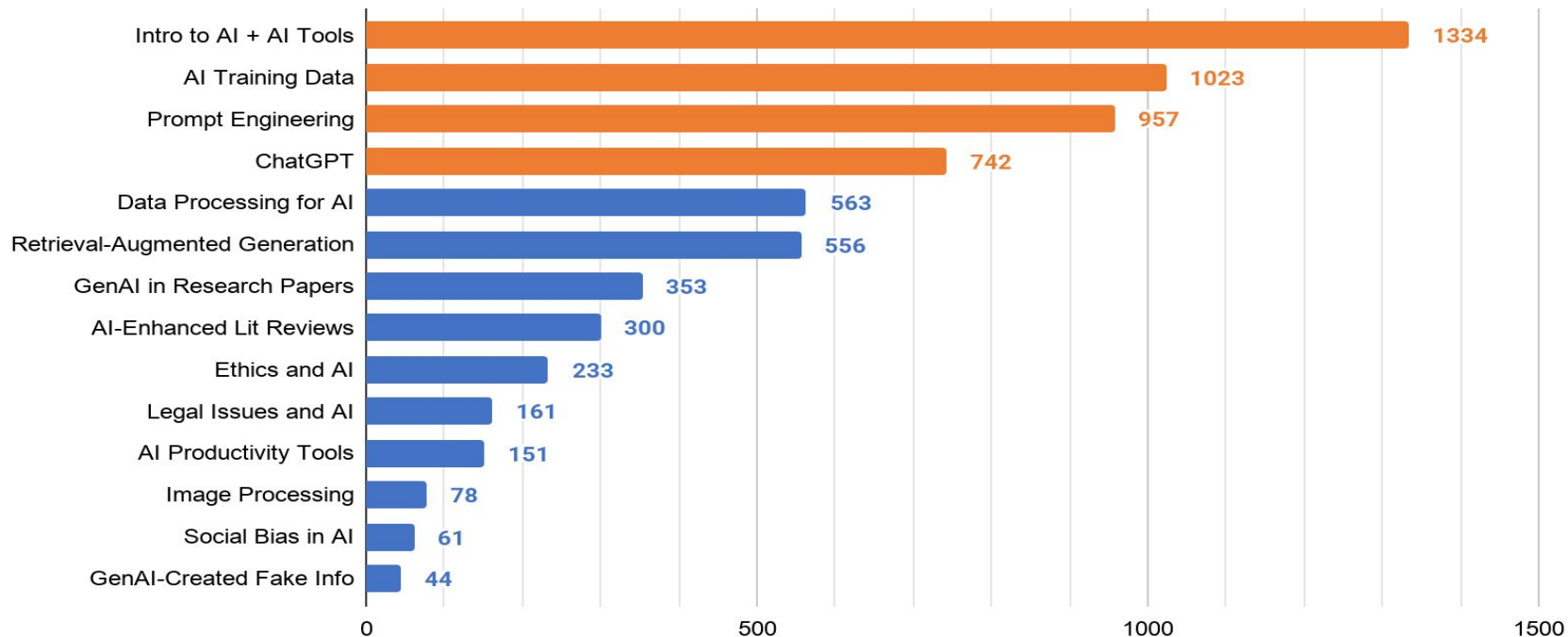
AI / ML Resource Guides

- Mirror Workshop Series topics
- Maintained on an ongoing basis
- Publicly available
- Links to licensed + open resources

The screenshot displays the 'Research Library' website interface. At the top, the logo and navigation links are visible. Below the header, there are tabs for 'ALL GUIDES', 'BY SUBJECT', 'BY TYPE', and 'BY OWNER'. A search bar is present with the text 'Search this Group' and a 'Search' button. The main content area is titled 'Showing 13 Guides' and lists various AI-related topics with their respective dates and item counts. On the right side, there are sections for 'A-Z Database List', 'Your Friendly Librarians' (featuring profile pictures of Jason Folkman and Sara Sacks), and 'Discussion Boards'. At the bottom, there is a footer with copyright information and a 'Powered by Springshare' notice.

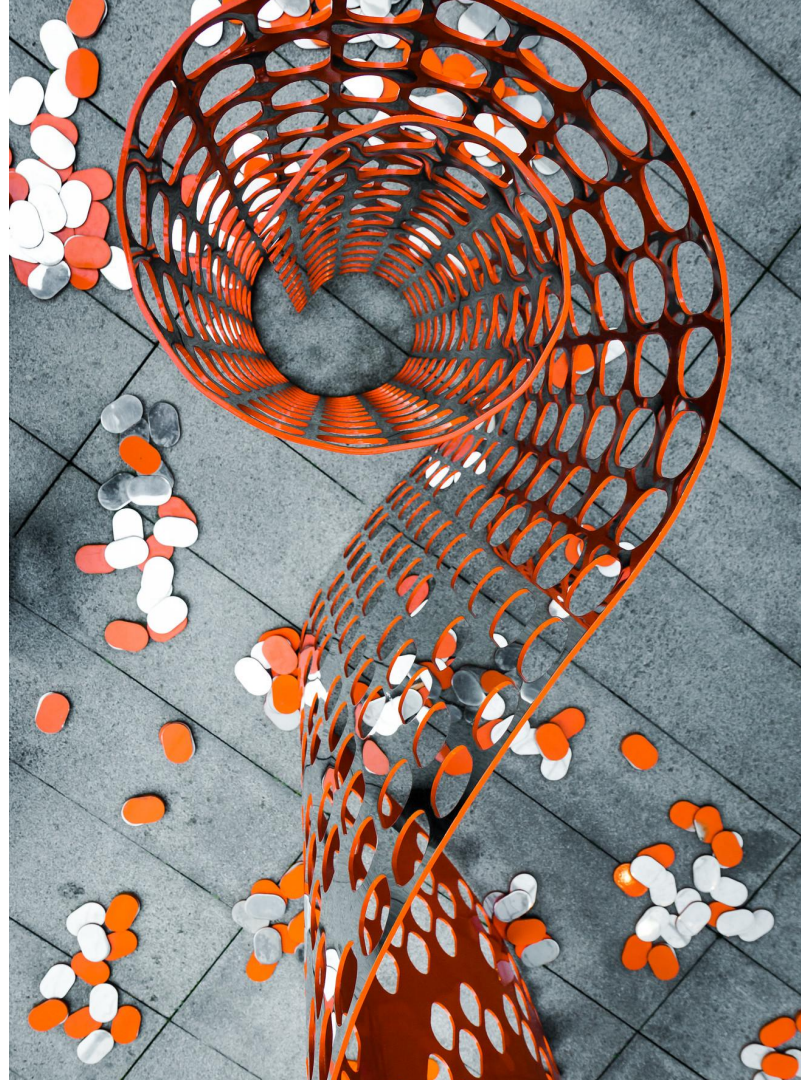
Guide Title	Date	Count
AI Enhanced Literature Reviews	Aug 1, 2025	57
AI Productivity Tools	Aug 6, 2025	33
AI Training Data: Open and Legal Sources	Aug 19, 2025	41
ChatGPT	Dec 3, 2025	73
Data Processing for AI	Jun 26, 2025	20
Ethics and AI	Nov 17, 2025	11
Generative AI in Research Papers	Jul 17, 2024	7
Identifying and Combating GenAI-Created Fake Information	Aug 14, 2025	1
Image Processing	Aug 13, 2025	37
Introduction to AI Literacy and Generative AI Tools	Dec 2, 2025	43
Legal Issues and AI	Dec 6, 2025	29
Prompt Engineering	Feb 26, 2026	44
Retrieval Augmented Generation (RAG): from the Basics to Advanced Topics	Aug 19, 2025	22

Research Library AI Resource Guides - Hits

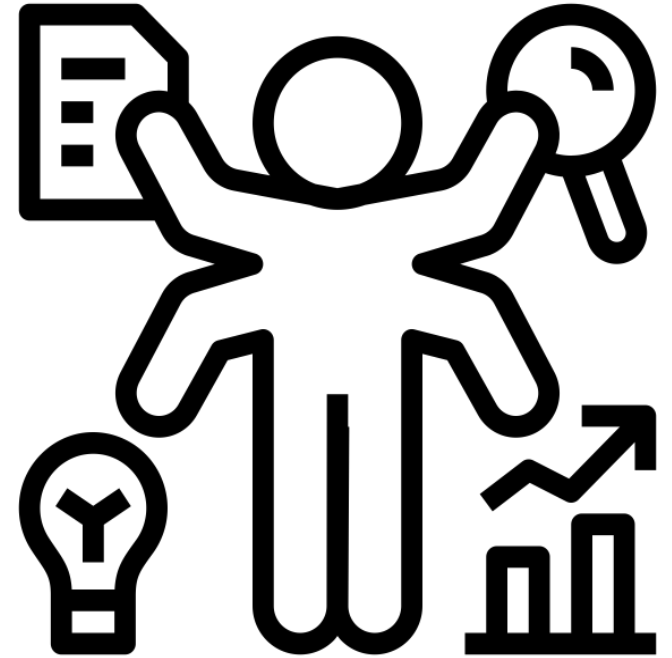


Reference Questions

- Institutional policy interpretation
- Tailored training requests
- Help w/ AI tool or use case
- Wanting to use publications as data



What AI skills does our workforce need?



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Tools + Features

- Capabilities of AI tools
- What AI tools are provisioned
- How to use different AI tools



Contextual Application

- Which AI tool to use for what purpose
- Example AI use cases by role or work area

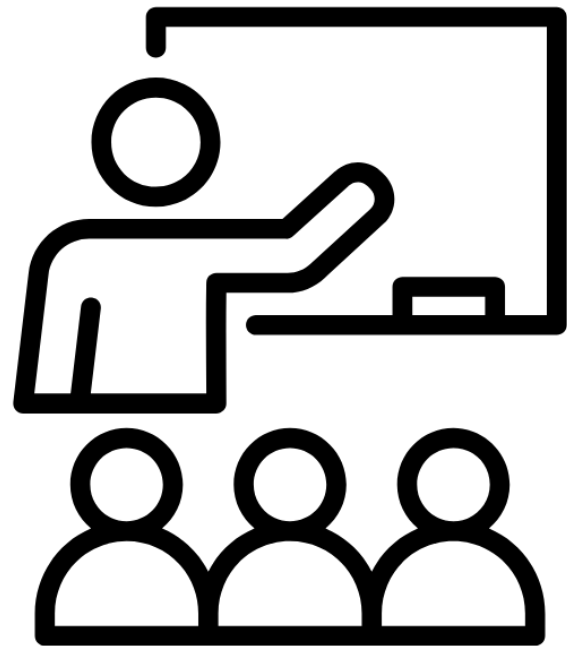


Governance

- Applicable institutional policy
- What information can be input in which tools
- Normative + legal guidelines



How has our lab responded so far?

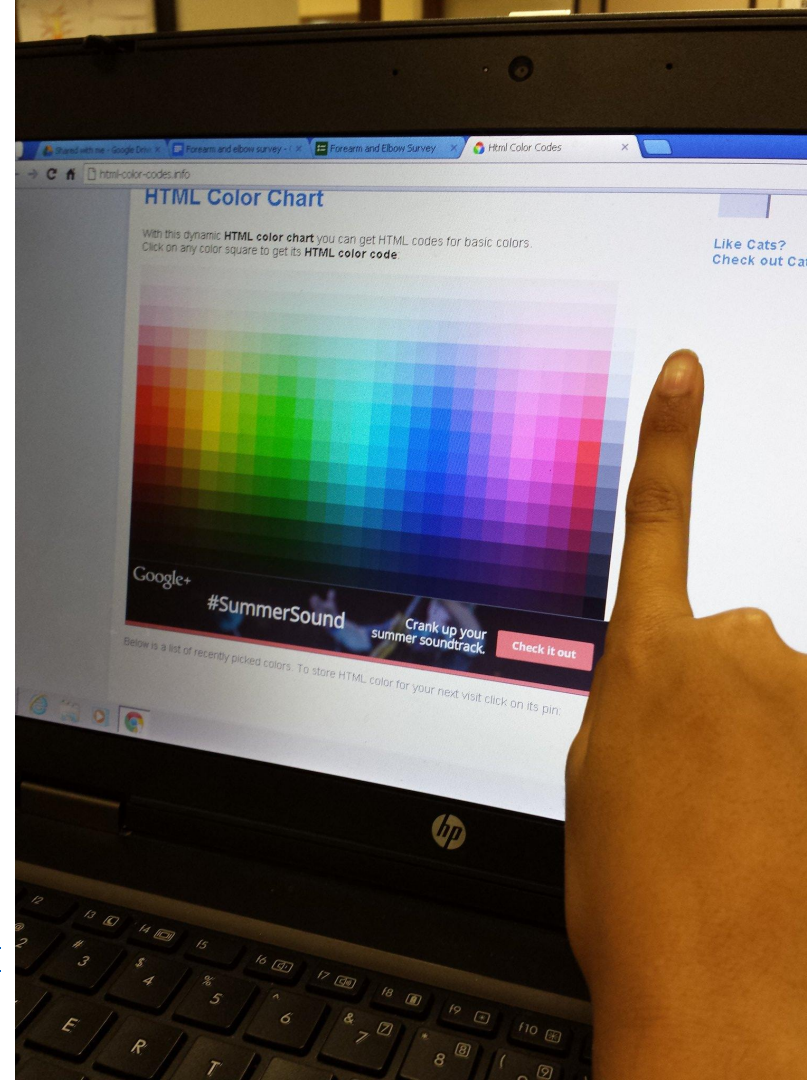


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Online Courses

- For example, LinkedIn Learning, Coursera, UTrain (LANL internal online course delivery)
- Pros:
 - Self-directed
 - Self-paced
 - Scalable
 - Economical
- Cons:
 - Not role-specific
 - Not institutional work-specific
 - More beginner / intermediate level



Seminars

- For example, AI Tech Lab, Lab Research Technical Exchange
- Pros:
 - Mission-relevant topics
 - Subject matter expert speakers
- Cons:
 - Limited interactivity
 - No hands-on learning
 - Narrowcast audience



Workshops

- For example, Library AI Research Workshop Series, IT org “AI Days”, AI Strike Team trainings, [Diller Digital](#)
- Pros:
 - Tailored to context + audience
 - Go deep on specific topic
 - Allow for more interactivity
- Cons:
 - Slow to develop + update
 - Can’t cover as many topics



Communities of Practice

- Could be role-based, institutional, extra-institutional
- Pros:
 - Accelerate socialization of domain-specific use cases
 - Leverage peer trust for learning
- Cons:
 - Can balkanize dialogue
 - Investing in under-generalized training



Genesis

- Genesis has become the major area of AI focus, particularly for Science, Technology, Engineering + Weapons
- Not yet strongly focused on training + education, but that is a component of overall project

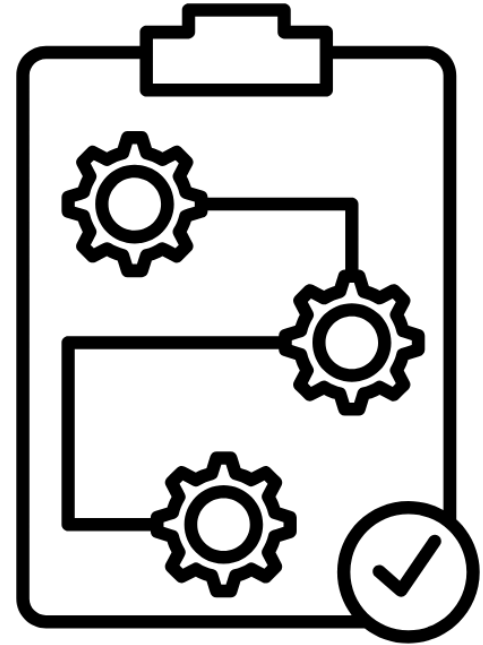


Genesis Mission

*Accelerating
American Science
Through AI Innovation*



What plans are we making for the future?



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Research Library Support

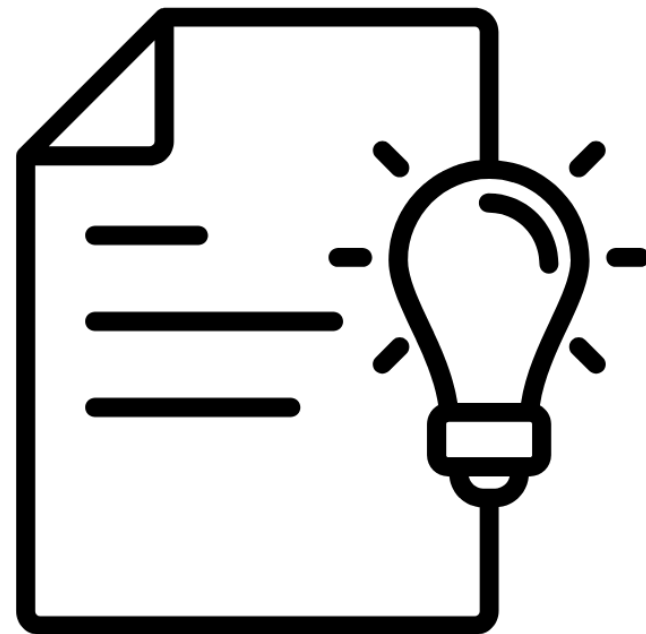
- Partner w/ local, domain-specific CoPs
- Offer ad hoc tailored training
- Reprise + update AI Research

Workshop Series

- AI for Research
- AI for Software Development
- Human-Machine Teaming for Strategic Insight
- Self-Service RAG



Takeaways and Discussion



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Takeaways

- Conduct ongoing, lightweight assessment to inform programming
- Provide active + passive resources
- Monitor + complement offerings by other AI-focused org units
- Foster internal communities of practice
- Facilitate delivery of expertise the Library itself lacks (while also building in-house expertise)



Thank You!



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Questions for Discussion

- What is your library's current and / or aspirational role with respect to institutional AI upskilling?
- How do you understand the AI upskilling needs of your lab?
- How have you approached the AI upskilling of your own staff?
- What is the backdrop of AI upskilling investments your lab is making?