

Navigating the AI-Driven Academic Frontier: Tools and Initiatives

Initiatives, resources and tools to proactively assist learners and researchers navigate an increasingly AI-powered environment.

CNI Fall 2023 Membership Meeting
December 12, 2023

Panelists

1. Joelen Pastva,

Director of Library Services, Carnegie Mellon University

1. Benjamin Shaw

Teaching and Learning Librarian, University of Maryland

1. Leo Lo

*Dean of the College of University Libraries and Learning Sciences,
The University of New Mexico*

1. Elias Tzoc

Associate Dean for Teaching, Learning and Research, Clemson University



Keenious at CMU Libraries

Joelen Pastva, Director of Library Services

Carnegie Mellon University Overview

- Private university in Pittsburgh, PA
- 14,500 students
- 1,300 faculty
- Top programs in computer science, IT, information systems, engineering, drama, and design
- Strong interdisciplinary culture
- Birthplace of AI



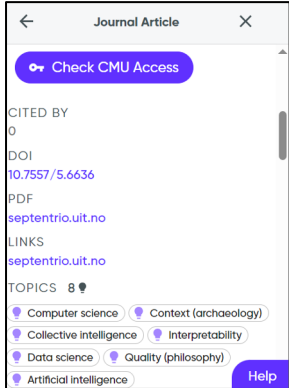
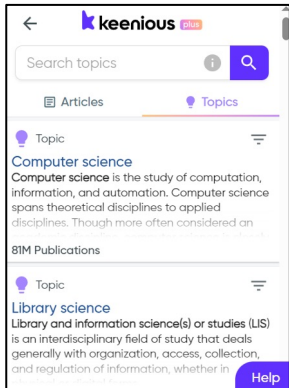
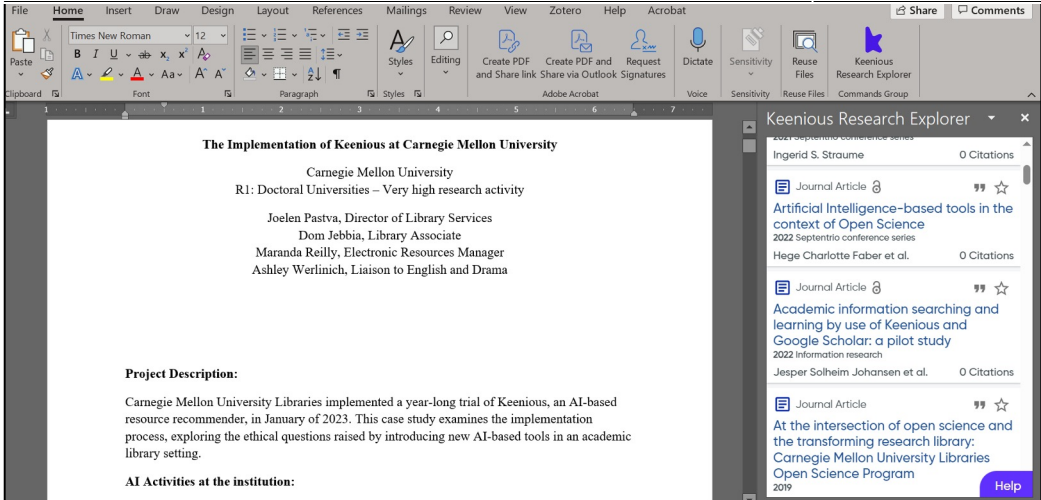
- Increase pathways for users to discover and access library resources
- Meet users where they are
- Help researchers identify relevant topics for improved searching



Recommender tool powered by AI to assist in the discovery of relevant scholarly articles by analyzing text inputs.

Implementation questions/concerns

- Data sources
- Algorithmic transparency
- Assessment options
- User and data privacy
- Impact on research process
- Product roadmap



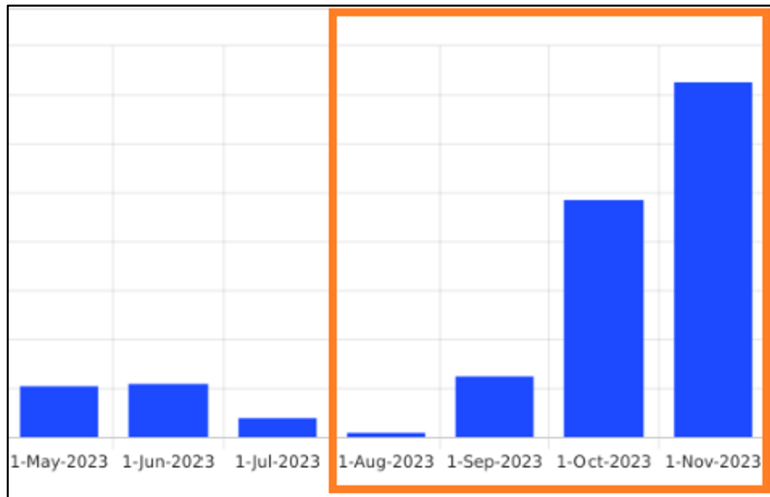
Measuring impact

- 1) User retention
- 2) Total unique users
- 3) Link resolver clicks

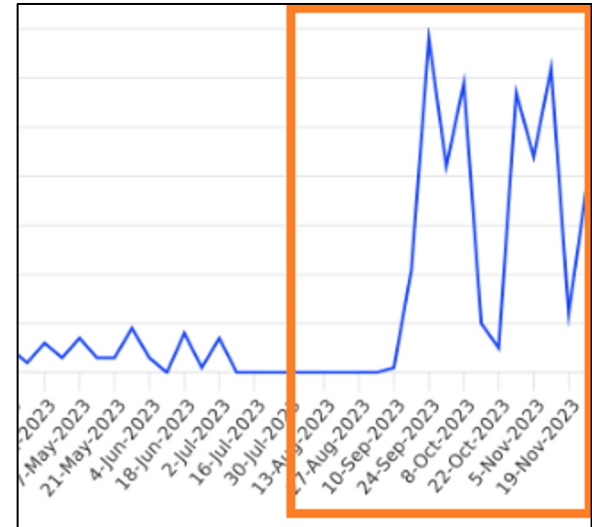
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Cohort	Size	Week 0	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Sep 16	10	100.0%	80.0%	80.0%	70.0%	20.0%	20.0%	70.0%	50.0%	70.0%	50.0%	20.0%
Sep 23	8	100.0%	75.0%	12.5%	12.5%	25.0%	62.5%	25.0%	62.5%	37.5%	25.0%	
Sep 30	9	100.0%	55.6%	11.1%	11.1%	22.2%	11.1%	22.2%	11.1%	0.0%		
Oct 7	10	100.0%	0.0%	10.0%	10.0%	10.0%	10.0%	0.0%	0.0%			
Oct 14	3	100.0%	33.3%	33.3%	33.3%	0.0%	0.0%	0.0%				
Oct 21	35	100.0%	17.1%	11.4%	8.6%	5.7%	8.6%					
Oct 28	70	100.0%	24.3%	20.0%	7.1%	10.0%						
Nov 4	20	100.0%	25.0%	5.0%	0.0%							
Nov 11	4	100.0%	0.0%	0.0%								
Nov 18	2	100.0%	0.0%									
Nov 25	18	100.0%										

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AI & Information Literacy Module

Benjamin Shaw, Teaching and
Learning Librarian

University of Maryland,
College Park



UNIVERSITY
LIBRARIES



University of Maryland context

- R1 state school, 30,000 undergraduates, 9,800 graduate students, 2,500 faculty
- Teaching and Learning Services at UMD Libraries - first-year library instruction, including source evaluation and information literacy
- Uncertainty around generative AI among faculty and librarians
- Demonstrated information literacy gaps around AI - both students and faculty
- **Intervention:** create a Canvas module that can be integrated into any course on campus, partnership between the Libraries and the Teaching and Learning Transformation Center

Goals for the project

- Address information literacy gaps
- Conversation about plagiarism → informed users of new technology
- Reach broad variety of students without alienating them
- Easily integratable, widely applicable resource
- Practical skills not bound to any particular AI tool, as evergreen as possible

Methodology

- Conversations with faculty and students, frequently received questions, experimentation with generative AI
- Work from existing resources and info lit concepts
- Bounds: AI & information literacy in context of university assignments and research

Contents of the module

AI & INFORMATION LITERACY:
HOW AI-BASED TOOLS WORK

AI & INFORMATION LITERACY:
ASSESS CONTENT

AI & INFORMATION LITERACY:
CITE CORRECTLY

AI & INFORMATION LITERACY:
LEVEL UP

- **Basics of how AI works**
 - AI tools, basic mechanics
 - Bias, labor, privacy
- **Fact-checking**
 - Common errors made by text-based AI
 - Lateral reading exercises
- **Citation styles**
- **Resources to explore further**
 - AI tool round-up, DALL-E prompt book, suggestions for usage

Impact

120 courses imported the module;
2293 views on our companion LibGuide

Testimony from faculty and students was overwhelmingly positive; other institutions have integrated into curriculum

Next steps

- Survey instructors on module usage
- Updating with new skills on AI content in “the wild”

Special thanks to my co-authors:
Mona Thompson, Senior Education Development Specialist
Daria Yocco, Graduate Assistant for Teaching and Learning

The Institute for Trustworthy AI in Law and Society (TRAILS)

bit.ly/AI-ELMS - **Explore the module**

Contact me: bshaw1@umd.edu



GPT-4 Exploration Project

the College of University Libraries & Learning Sciences, University of New Mexico

Presenter: Leo Lo

Leading the Way: Insights from a Generative AI Experimentation

- Enhance capabilities - Find practical applications of AI that can improve workflows, services, etc.
- Develop proficiency - Gain hands-on skills with generative AI tools through projects.
- Seed innovation - Create a culture that is open to experimenting with and adopting new technologies proactively.



The Explorers

The Participants:

- 10 interdisciplinary professionals from libraries, technology, and learning design
- Mix of skill levels
- Attitudes spanned skepticism to enthusiasm about AI

Their Projects:

- Generative AI for research data plans and manuscript drafting
- AI tools for instructional content creation and student support
- Using AI in cataloging, metadata, and collection management
- Testing AI capabilities for generating FAQs
- AI for enhancing library communications and patron interactions
- Dean's assistant's virtual assistant



Program Outcomes

Pre-Program:

- Average familiarity with AI tools was 2.36 out of 5
- Average self-rated AI literacy was 2.45 out of 5

Post-Program:

- **Familiarity increased** to average of 3.63 out of 5
- **AI Literacy increased** to average of 3.38 out of 5
- Main challenges: **technical limitations, prompt engineering**
- Participants gained skills in prompt crafting and assessing AI capabilities/limitations
- **Confidence in using AI tools increased** from average of 3.1 to 4 out of 5
- Program rated 4.75 out of 5 for effectively meeting goals

Testimonials:

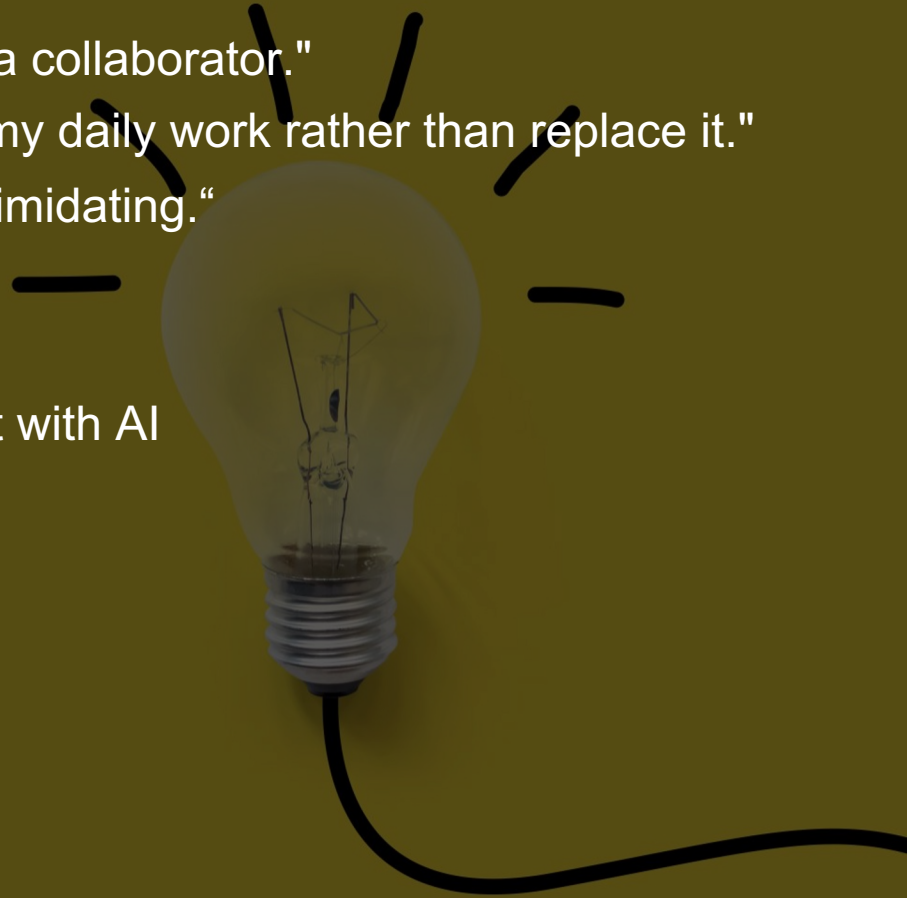
- "This program changed AI from a threat into a collaborator."
- "I gained confidence in using AI to enhance my daily work rather than replace it."
- "The freedom to experiment made AI less intimidating."

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





AI-powered tool subscription

Elias Tzoc

Associate Dean for Teaching, Learning and Research
Clemson University Libraries




scite_





WHY did we start?

- **University Strategic Plan**
- **Library's mission**
- **Increase in reference questions**
- **Help with AI awareness**





WHAT did we do?

- Talked to colleagues at other institutions
- Arranged demos and trials
- Recommended a one-year subscription
- Created PR campaign and research guide

OURClemson | NEWS AND EVENTS

Clemson Libraries invites feedback on AI tool used to evaluate scientific articles

The Libraries have a free one-month trial of scite, an award-winning platform that uses artificial intelligence to discover and evaluate scientific articles. The trial runs through July 21, so anyone with a University email address can access and use the tool. [READ MORE >](#)

The screenshot shows the top of the scite.ai website. At the top left is the Clemson Libraries logo (a paw print) and the word "LIBRARIES". Below this is a navigation bar with links for "Clemson Libraries", "Research and Course Guides", "scite.ai Smart Citations", and "Meet scite". To the right of the navigation bar is a search box with the text "Search this Guide" and a "Search" button. Below the navigation bar is the main heading "scite.ai Smart Citations" followed by the tagline "Revolutionizing research by providing real-time citation context and credibility assessment for scholarly articles." On the left side, there is a vertical menu with four items: "Meet scite" (highlighted in orange), "Access scite", "Use scite", and "Acknowledging AI Use". On the right side, there is a section titled "Unlock the power of knowledge with scite.ai" with a sub-heading "scite_" and a paragraph of text: "Clemson Libraries now subscribes to scite, an AI-powered research platform that analyzes and provides citation context for scientific papers, helping researchers evaluate the credibility and impact of scholarly articles. The scite database contains over 1.2 billion citations and 185 million full-text articles, which can bring key benefits to Clemson Elevate's priorities: Student Experience and Research."



ENGAGEMENT

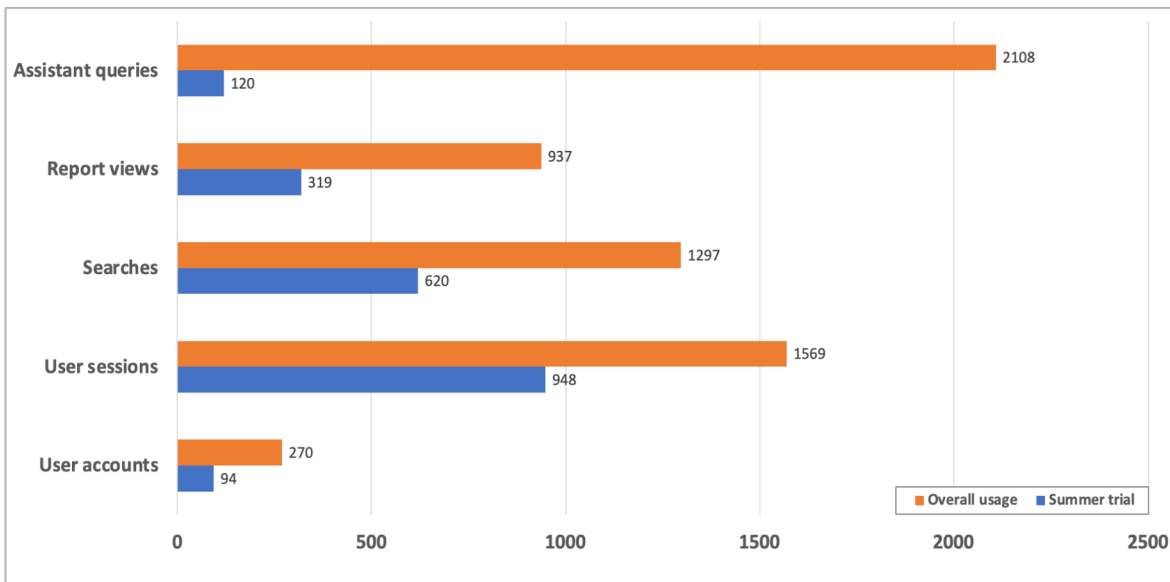
Trial: June 20 - July 20 | Subscription: September 1 | Official Launch: October 1

Trial feedback

- 5 colleges
- 11 departments
- 14 completed forms
- 50% faculty
- 50% grad students
- 4.57/5.00

Research Guide

1469 views



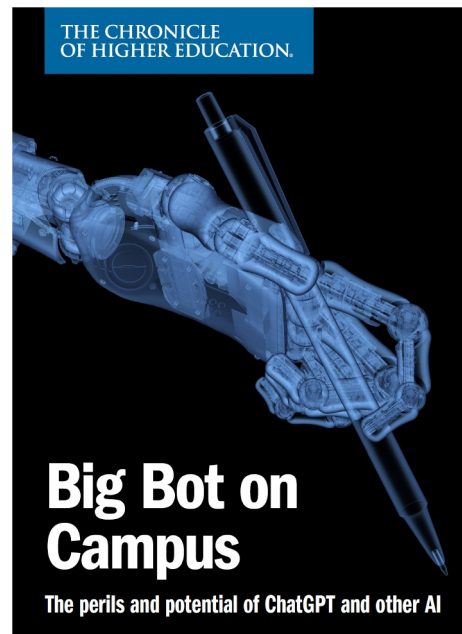


HOW are we going to continue?

- Marketing and promotion
- Teaching and presenting
- Assessment and feedback
- Stay tuned!

News

Top 5 AI Tools for Academic Research
The Best AI tools for college students
AI tools for education
The Impact of AI on Teaching and Learning



Questions?

