

Teaching While Learning: An Approach to Incorporating Artificial Intelligence Literacy in Library Instruction

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About Us

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Teaching and Learning Librarian, Teaching and Learning Services

This presentation was originally inspired by our previous presentation at LOEX Fall Focus, Generative Discussions on Generative AI: Preparing Librarians to Teach about Artificial Intelligence.

We would like to give an acknowledgment to our co-presenter on that presentation, Daria Yocco.

Today's Agenda

1. Background and Context-Setting
2. Teaching Ourselves about AI
3. Approaches to AI Instruction
4. Future Work and Considerations

Background

- **University of Maryland, College Park**
 - Public university, R1, Maryland's largest university
 - 30,000 undergraduates, 9,800 graduate students
- **Teaching & Learning Services** is an instruction-focused unit with 3 faculty librarians and 2 GAs.
 - Partnership with Academic Writing Program (teach ~180-190 ENGL101 instruction sessions per year)
 - Oversee Research and Teaching Fellowship - teacher-training program and mentorship program for MLIS students.
 - Support other librarians with teaching duties – lesson planning, materials development, assessment, internal workshops, instruction tools, etc.
 - Liaison to College of Information (which includes UMD's MLIS program)

Teaching Ourselves about AI

Why Did We Need to Teach Ourselves?

- Late 2022/winter of 2023 – Campus in panic-mode, scrambling to create resources, update assignments, set policies, grapple with what this meant for higher ed
- Responsibilities to numerous user groups – to teach them, we needed to have a grasp of the technology ourselves

How did we teach ourselves?

- Using the tools
 - Using from a student perspective + for workplace uses
- Making ourselves part of a learning community
 - Reaching to other librarians and students for anecdotal experience
 - Communicating with each other/peers
- Continuing learning
 - Going to every AI presentation/workshop we could get our hands on
 - AI guides
 - Resource guides assembled by the Department of Education & other instructors
 - Feedback from users on social media
 - AI scholarship

Bibliography



go.umd.edu/UMD-CALC

Approaches to AI Instruction

Who Were We Supporting?

- Academic Writing Program
- Research and Teaching Fellows
- UMD Students
- Subject Librarians

How We Got Started

- Used what we had personally learned about AI.
- Conversations with AWP, graduate student teachers, other librarians to help us identify what approach to take with creating teaching materials.
- Identified existing partnerships and materials that were already in-place.
- Brainstormed ideas:
 - ChatGPT's answers are not authoritative.
 - ChatGPT builds on what you feed it: privacy, credit, copyright.
 - ChatGPT does not distinguish between scholarly and popular sources.
 - How to use ChatGPT in the right context.
 - Have to understand what you need in order to prompt ChatGPT.
 - Need to have enough background information to evaluate answer.

Academic Writing Program and Research and Teaching Fellows

Academic Writing Program - AI policy

- The ENGL101 course is taught by a mix of experienced senior faculty, adjuncts, and graduate students.
- “Generative artificial intelligence such as ChatGPT are tools that may be effectively employed in your writing process, if used responsibly. This semester we will discuss and demonstrate how to use ChatGPT responsibly to enhance your writing. However, using AI to compose assignments for this class (i.e. letting it “do the work for you”) is not permitted...”

Academic Writing Program - AI policy

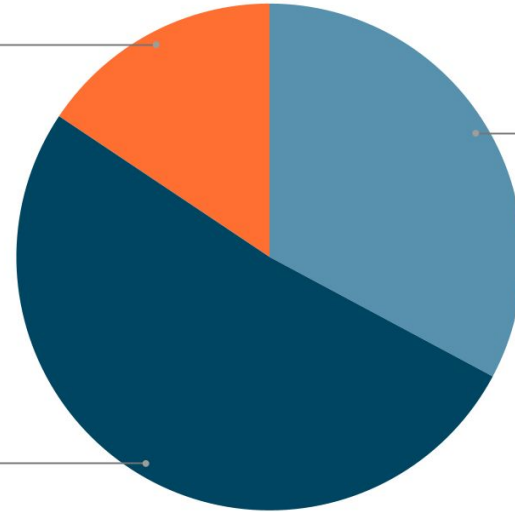
- We added questions to library instruction form in fall 2023:
 - Will you allow students to use AI?
 - Are you planning on including any activities or lessons relating to AI in your course?

Will you allow students to use ChatGPT?

Unsure
15.6%

Yes
32.8%

No
51.6%



2023 AI Literacy Learning Outcomes for Academic Writing Program

- Students will be able to think critically about AI and not assume that an AI-provided answer is the only answer.
- Students will be able to recognize that AI often provides incorrect answers, but that it also often returns correct ones.
- Students will be able to apply lateral reading techniques to evaluate AI-generated answers.

AWP Lesson Plan Focus: Ghost Citations

- Aligned with stakeholder interests & addressed information literacy gaps.
- Implications for both undergraduate students and graduate students.
 - Undergraduates - focus on evaluating authority
 - Graduates - focus on ethical implications of ghost citations on a scholarly profile.
- Created a lesson plan revolving around using ghost citations to figure out what information is accurate what what implications that would have on research.



GHOST CITATIONS



Generative AI is savvy enough to make up legitimate-sounding responses when it does not know the answer. It also creates false citations, which are called ghost citations. Use this worksheet to interrogate the sample source below - or use your own!

**SAMPLE CITATION -
GENERATED FROM CHAT GPT**

Attai, Daniel J., et al. "TikTok, a New Media Platform for Innovative Engagement with Research and Education in Breast Oncology." *Annals of Surgical Oncology* 28, no. 3 (2021): 1302-1306. doi: 10.1245/s10434-020-09343-6.

AUTHOR(S):

ARTICLE TITLE:

JOURNAL TITLE:

1. USING GOOGLE SCHOLAR, SEARCH FOR THE NAME OF YOUR AUTHOR(S)

YES

NO

- Is this author real?
- Have they written articles about this topic or similar topics in the past?
- Can you find additional information about the author through a Google search?

2. USING GOOGLE SCHOLAR, SEARCH FOR THE ARTICLE TITLE.

(USE QUOTATION MARKS AROUND THE TITLE)

YES

NO

- Were you able to find the article?
- Look at the title of your article. What keywords about your topic could you pull from your article?

AI Talking Points for Academic Writing Program

- AI is good and bad at different things.
 - A source generated by AI is not automatically accurate or inaccurate. AI is still coded by human-beings and may have human biases that are harmful towards different groups of people.
- AI fills gaps by making up knowledge.
 - AI is smart enough to make up legitimate-sounding responses when it does not know the answer. AI creates false citations for this information. UMD has gotten requests for fake books generated by AI before!
- AI should not be used for background research.
 - If you are learning about a new topic, AI sources should not be used because of accuracy concerns. Library resources like CQ Researcher are better to use.

Updating Existing Activities

- In addition to creating a new lesson plan focused on AI, we also considered how we could update our existing lesson plans to incorporate AI elements.
- Updated our popular Evaluating Authority Activity
 - Leant itself well to AI Literacy.
 - Commonly requested lesson plan from instructors.

3 Ways to Incorporate AI Literacy

- Do ghost citations activity.
- Discuss AI in context of Evaluating Authority activity.
- Do not mention AI if instructor is uncomfortable with the topic.

Teaching Research and Teaching Fellows about AI

- Teaching graduate student teachers who were also new to instruction.
 - Needed to make sure they had enough background knowledge to discuss in the classroom.
- Shared talking points, lesson plan, and slides with Fellows.
- Led workshops and practice sessions for Fellows through ghost citations lesson plan.
- Added an AI activity-focused week in our dedicated Fellowship course, LBSC751

UMD Students

AI module & LibGuide

ARTIFICIAL INTELLIGENCE & INFORMATION LITERACY



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TRANSFORMATION CENTER



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Why we included what we did

- Experimented with ChatGPT & other text-based generative AI
 - Used in ways students might, discovered recurring issues
- AI literacy gaps
 - Students & faculty requesting non-existent books & articles
 - Students using ChatGPT as a replacement for Google in the research process
 - How generative AI works and its actual capabilities
- Important things to emphasize
 - AI biases and the idea of computer “objectivity”
- Something for every user
 - Didn't want to alienate strongly pro- or anti-AI students; this information is important for everyone
 - Included ways to practice with different types of generative AI, but also tools like Glaze (an anti-AI art scraping tool)

AI & INFORMATION LITERACY:

HOW AI-BASED TOOLS WORK

- Overview of basic terms and mechanics of how generative AI works
 - Examples of different types of AI
- Using AI carefully & thoughtfully
 - Included both issues of accuracy/security and also labor/bias
 - Not a compartmentalizable part of the conversation, important ideas for everyone to engage in
- Videos and quiz

AI & INFORMATION LITERACY: ASSESS CONTENT

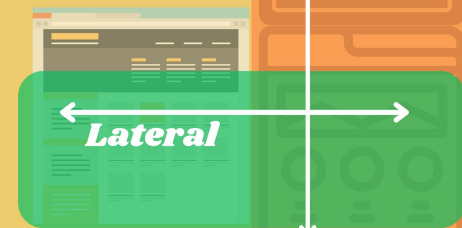
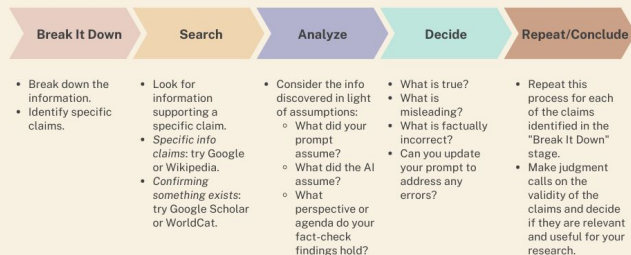
16th-century art was a period of great artistic innovation and diversity in Europe, especially in Italy. It was influenced by the Renaissance culture and ideas that emerged in the previous century, as well as by political, religious, and social changes. Some of the main movements and styles of 16th-century art are:

- The High Renaissance (c. 1490-1527): This was the peak of artistic achievement and harmony in painting, sculpture, and architecture. It was characterized by a realistic representation of the human figure, a balanced use of perspective and proportion, and a classical inspiration from ancient Greece and Rome. Some of the most famous artists of this period are Leonardo da Vinci, Michelangelo, Raphael, and Titian ^{1 2}.
- Mannerism (c. 1520-1600): This was a style that emerged after the High Renaissance, in reaction to its ideals of beauty and harmony. It was characterized by a distortion of the human figure, an exaggeration of emotions and gestures, an artificial use of colors and light, and a complex composition that often created a sense of tension and instability. Some of the most famous artists of this period are El Greco, Parmigianino, Bronzino, and Tintoretto ^{1 2}.
- The Northern Renaissance (c. 1430-1580): This was a movement that developed in the countries north of the Alps, such as Germany, France, England, and the Netherlands. It was influenced by the Italian Renaissance, but also had its own distinctive features, such as a greater attention to detail, a realistic depiction of everyday life, and an interest in landscape and nature. Some of the most famous artists of this period are Albrecht Dürer, Hans Holbein the Younger, Pieter Bruegel the Elder, and Hieronymus Bosch ¹.

Learn more: [1. britannica.com](#) [2. theprouditalian.com](#) [3. artsy.net](#) [4. history.com](#)

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AI Fact-Checking



AI & INFORMATION LITERACY: ASSESS CONTENT

AI Fact Checking Text & Links

Introduction:
The University of Maryland boasts a rich sports culture with a long-standing tradition of incorporating elephants into its athletic programs. These magnificent creatures have played a significant role in the university's sports culture, symbolizing strength, power, and resilience. This essay aims to explore the various ways in which elephants have influenced and shaped the University of Maryland's sports culture, relying on factual information and credible sources to support the claims.

1. Terps Mascot:
The University of Maryland's official mascot, "Terp", is a diamondback terrapin, but the elephant has also played a symbolic role in the sports culture. Historically, the school's athletic teams were referred to as the "Old Line", a term derived from the Maryland state song. The term "Old Line" is said to be a nod to the Civil War-era railroad lines that transported troops and supplies. During this time, elephants were commonly used in the construction of railroads due to their strength and endurance. Therefore, elephants became associated with the university's sports teams, reflecting their resilience and determination.

2. Maryland Terrapin Football:
Elephants have made appearances during football games at the University of Maryland. The "Elephant Walk" is a pre-game tradition where the Maryland football team walks in a march band, mimicking the movement of elephants in a herd. This tradition, which dates back to the 1950s, is a nod to the university's sports culture and its history of success in various sports merchandise and logos. The popular "Year the Turtle" slogan is often accompanied by an elephant logo, symbolizing the connection between the university's sports culture and its history.

but now I want to check a weirder claim that UMD sports are

MORE VIDEOS

1:17 / 4:23

YouTube

User: Write a 5 paragraph essay on Abraham Lincoln's international travels. Be sure to only include factual information. Provide a list of sources at the end and cite throughout to support your claims.

ChatGPT: Abraham Lincoln's international travels were limited during his lifetime, primarily due to the circumstances of his presidency and the political climate of his era. Despite being a significant figure in American history, Lincoln had only one official international trip during his time as President. In 1862, he embarked on a diplomatic mission to Canada, aimed at resolving tensions between the United States and Britain during the American Civil War.

In September 1862, President Lincoln traveled to Niagara Falls, Canada, for a brief meeting with the British colonial administrator, Lieutenant Governor General Sir Edmund Head. The main purpose of this trip was to discuss issues relating to the Trent Affair, a diplomatic incident that had escalated tensions between the United States and Britain. During the incident, a U.S. Navy warship, the USS San Jacinto, intercepted a British mail steamer, the RMS Trent, and forcibly removed two Confederate diplomats who were traveling to Europe. This incident had the potential to trigger a broader conflict between the United States and Britain, but Lincoln's diplomatic efforts in Canada helped avert further escalation.

Apart from this one international trip, there are no records of Abraham Lincoln traveling outside North America during his presidency. The demands of the Civil War, which lasted from 1861 to 1865, consumed much of his time and attention, leaving little opportunity for extensive international travel. Lincoln was focused on preserving the Union and managing the challenges posed by the war, which ultimately led to his assassination in April 1865.

After Lincoln's assassination, his body was taken on a funeral train that traveled through several cities in the United States, allowing the public to pay their respects. While this funeral procession was not an international trip, it is worth noting as it carried his legacy across various parts of the nation.

In conclusion, Abraham Lincoln's international travels were limited to his diplomatic mission to Canada in 1862. Due to the pressing demands of the Civil War and the challenges of his presidency, he had little opportunity to travel abroad during his time in office. Nonetheless, his short trip to Canada played a crucial role in defusing tensions between the United States and Britain during a critical period of the American Civil War.

Sources:

- "Abraham Lincoln: A Biography" by Benjamin P. Thomas (1952)
- "Lincoln: A Biography" by Ronald C. White Jr. (2009)
- "Lincoln's Virtues: An Ethical Biography" by William Lee Miller (2003)
- Library of Congress: "Abraham Lincoln's World: Canada" - <https://www.loc.gov/exhibits/lincoln/wld149.html>

Question 5 1 pts

Who was the governor general (British colonial head) of Canada in 1862?

☐ Sir Edmund Head

☐ John A. Macdonald

☐ The Viscount Monck

☐ Charles Hastings Doyle

Question 6 1 pts

The Library of Congress URL in the references list is dead. Did a page like this ever exist? Use the Wayback Machine or try searching Google using the limiter "site:loc.gov".

☐ Yes, it definitely existed

☐ No, it probably did not exist

Question 7 1 pts

How many of the sources listed are real?

☐ None

☐ Two

☐ Three

☐ Four

AI & INFORMATION LITERACY:
CITE CORRECTLY

- Citing AI properly using APA, MLA, Chicago-issued standards
- Why we cite and why and how to cite AI

AI & INFORMATION LITERACY:
LEVEL UP

- Ways to explore AI
- Prompt-writing tips
- Further resources to explore aspects of the AI conversation

Results

- 118 professors added the module to their Canvas course spaces, and 29 different institutions have incorporated it into learning materials of theirs
- Students were able to come to us with more background knowledge, so subject librarians unfamiliar with AI did not have to be the first line of instruction
- LibGuide gave librarians and staff a resource to point patrons towards, but also to learn about AI themselves
- This is now a teaching resource that we can use/will update indefinitely for internal use as well as external

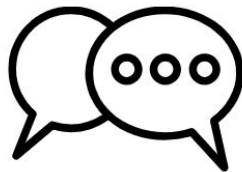
Subject Librarians

AI Chat Series

- Fearless Teaching Institute: UMD Libraries internal professional development program for the Libraries faculty and staff.
- Run by Teaching and Learning Services, the Fearless Teaching Institute regularly holds workshops and shares information about teaching and learning to Library faculty and staff.

AI-CHAT:

CONVERSATIONAL
ARTIFICIAL INTELLIGENCE
+ LIBRARY INSTRUCTION



NOTHIN' BUT THE FACTS

08/08

Overview of Conversational AI focusing on the capabilities, functionality and implications for users

CHAT GPT LEARNING LAB

08/15

Demonstration of Chat GPT followed by small groups in which participants will get hands-on experience with conversational AI

CHAT GPT TEACHING LAB

08/22

Overview of a new AI Module available in Canvas Commons and Chat GPT activity that will be used in Information literacy instruction for ENGL101

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Fearless Teaching Institute

Spring AI Chit Chat

“There are so many issues with AI and power dynamics, environmental impact, bias, etc. Should we be encouraging AI use or taking a limited approach to AI use?”

“AI is here to stay, so we should talk about it in a way that doesn’t demonize it, but emphasize how we should think for ourselves about what the AI is telling us.”



What Have We Learned from the AI Chats?

- Conversations about AI are changing in some academic departments. Some librarians are talking more about AI to faculty than others.
- Librarians are enjoying the knowledge-sharing and discussion.
 - Gives librarians to opportunity to share their thoughts and feel seen.
- Creating a better community with our librarians, so when major changes roll out, this group already exists.
- Globalizing AI into all academic disciplines.
- Critical conversations about environmental impact, bias & racism, and labor related to AI.

Future Considerations and Work

Updates to Our Instruction

- Get out of reaction mode and start to plan more holistically.
 - What was important to us in 2023 -> What is important to us in 2024
- More fact-finding: updating our content with current AI models
 - ChatGPT-4o
- Rethinking how we are presenting AI in the classroom
 - Previously focused on inaccuracy of information, but that is only a small piece of the current conversation.
 - Based on in-class conversations with students, they are prepared to discuss accuracy concerns with AI, so we want to extend beyond that framing.
- Considering new activities
 - Prompt engineering, Evaluating AI “in the wild”

Future Conversations

- Student AI Chit-Chats
 - Want to discuss AI with undergraduate and graduate students.
 - Leveraging existing platforms for these discussions.
- Academic Writing Program
 - Solicit instructor feedback about AI instruction in the classroom.
- Incorporating AI Literacy with other academic partnerships
 - Office of Multi-ethnic Student Education (OMSE) workshop series.

AI Considerations Moving Forward

- Artificial Intelligence Interdisciplinary Institute at Maryland (AIM)
 - future AI4All classes, AI majors, AI focus
 - Considering things to address in those classes
- Updating AI modules & guides
 - Addressing AI popular sources - images, videos, articles
- Keeping lines of communication open with subject specialists, campus partners, and students

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- Katie Shilton (Department of Information Science, UMD)
- Daria Yocco (Teaching and Learning Services, UMD)

Questions?

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