AI Information Practices of Undergraduate Students

AI Information Practices of Undergraduate Students

go.osu.edu/ALA-2026

Speaker Introductions

Laura Costello, MLIS, PhD
Director of Access & Information Services
University of Minnesota Libraries

Michael Flierl, MA, MSLIS
Associate Professor, Student Learning Librarian,
AI Faculty Fellow
The Ohio State University

Presentation Outline

- Student use of generative AI from the literature
- At the intersection of generative AI and libraries
  - Scope and perspectives
- Study goals, methods, and preliminary results
- Potential implications
  - What could this mean for libraries?
  - What do we still need to understand?

How are undergraduates using generative AI technology?

Historical Context

"In effect, now is the time for universities to rethink their function and pedagogical models and their future relation with AI solutions and their owners. Furthermore, institutions of higher education see ahead the vast register of possibilities and challenges opened by the opportunity to embrace AI in teaching and learning. These solutions present new openings for education for all, while fostering lifelong learning in a strengthened model that can preserve the integrity of core values and the purpose of higher education."

Historical Context

"In effect, now is the time for universities to rethink their function and pedagogical models and their future relation with AI solutions and their owners. Furthermore, institutions of higher education see ahead the vast register of possibilities and challenges opened by the opportunity to embrace AI in teaching and learning. These solutions present new openings for education for all, while fostering lifelong learning in a strengthened model that can preserve the integrity of core values and the purpose of higher education." *(Popenici & Kerr, 2017)*

Historical Context

"It is crucial to emphasise that educational technology is not (only) about technology – it is the pedagogical, ethical, social, cultural and economic dimensions of AIEd we should be concerned about."
(Zawacki-Richter et al., 2019)

Historical Context

"...ChatGPT is available 24/7, providing immediate responses to queries without the need to wait for human assistance. It has access to a vast amount of information from diverse sources, which allows it to answer a wide range of general questions. For straightforward and common questions, ChatGPT can often provide fast and accurate answers." *(Yang, 2024, p. 113)*

HAI 2026 AI Index Report — Chegg Global Student Survey data, n = 11,706

"80% [of university students surveyed across 15 countries] said they have used generative AI to support their learning. That is double the share reported in 2023, when only 40% of students reported having used generative AI for school." *(p. 303)*

"Students who use generative AI for school report doing so frequently: 56% input a question at least once a day." *(p. 303)*

Anthropic Report, n = 574,740 conversations

"[Anthropic] found that most students use [Claude] for higher-order thinking skills, such as creating (39.8%) and analyzing (30.2%), rather than lower-order thinking skills, like…understanding (10.0%).

CSU "Ahead of the Curve," Fall 2025 (N = 94,060)

"Ninety-five percent of respondents have used at least one AI tool. More than half of students, roughly six in 10 faculty and nearly two-thirds of staff report regular use."

"ChatGPT is used by 84% of students, 87% of faculty and 89% of staff. The typical respondent uses three AI tools."

CSU Report Con't

"65% of student respondents are skeptical about AI in education, yet 64% say it has positively affected their learning. Student respondents see AI's practical value while questioning whether it improves the quality of their education overall." (CSU, 2026)

"About 80% of student respondents are not comfortable submitting AI-generated work as their own. This pattern holds consistently across demographic groups and academic disciplines."

AI IN LIBRARIES [QUOTES]

“Furthermore, a cluster of studies emphasized the need for more user-driven research on AI applications in libraries. For instance, Wang (2022) studied chat transcripts in an academic library with the aim of building a model to enhance reference services. The scholar proposed a future research direction that focuses on developing multi-category models and using machine learning to support information seeking, citation, and answering of reference questions, and printing of relevant resources in libraries.”

Intersection of Libraries and AI

- Investigating student use of generative AI through the lens of library reference and instruction
- Connaway and Radford's Seeking Synchronicity Project (2011)
  - Question type
  - Query clarification
  - Convenience
  - Content/Relational Model of Reference Success
- Instructional frameworks in virtual reference

Statement of Purpose

- Why do students choose to use generative AI and what are their criteria for choosing this method?
- What are students concerns around generative AI?
- What types of questions and work are represented in the transcripts they submit?
- Are these transcripts similar to or different from the type of transcripts we see in virtual reference? Can we evaluate them using methods and assessment structures from librarianship?

Methods

- Qualitative analysis of students' transcripts (up to 10 for each participant) from their interactions with generative AI tools for their coursework
- Short qualitative interviews with the same students in which we are able to ask them questions about the transcripts they provided (paired transcript method)
- Recruitment primarily through print posters displayed around campus
- Still actively recruiting for this study, targeting 40 total participants across 2 institutions

Results: Demographic results

- Preliminary qualitative data from 10 students
- Student areas of study: 60% sciences, 20% each social sciences and humanities
- Student level: 40% sophomores, 20% each freshman, juniors, seniors
- Which tools were used? 80% ChatGPT primarily, 20% Gemini (institutional subscription) primarily
- 40% used daily, 30% several times per week, 30% weekly

Results: Why do students use it?

Equity lens:

- **Balancing coursework with employment**: “I need to get this assignment done, but it's during a day when I actually don't have instructors or office hours available to me, and so how am I going to get it done?” and “I think if I didn't have AI with me, right now I would not be surviving college. I think I would have probably dropped out.” (P4)
- **Executive function**: “I know that it's not hard. I know that it'll take me minute, or I don't know, 10 minutes, but I just don't want to do it. So I think that by using AI, it makes it easier to get started.” (P9)

Results: Why do students use it?

Equity lens:

- **Social anxiety**: “Whenever I go to tutors, for example, I'm like, ‘what if someone's waiting on them?’ I don't have to feel like I'm bothering somebody.” (P5)
- **English as a second language**: “I'm not a native speaker of English and I have reading issues and disabilities and a bunch of stuff that just, it's hard for me to see mistakes.” (P9)

Results: Why do students use it?

Knowledge gap:

- **Understanding concepts:** “The cell biology class is technically supposed to be taken before this class. Luckily, I was able to take this class first, but then I think there was a gap in some way where I was trying to catch up and understand some of the concepts that we talked about.” (P10)
- “I use AI to help me understand concepts in class…I would only use AI when something was like, ‘okay, what did they mean by that?’” (P5)
- “It's usually for just if there's stuff that I don't understand in lecture, I use that to kind of expand on stuff, ask it lots of different questions.” (P6)

Results: Why do students use it?

Help with particular parts of academic work:

- **Ideas:** “I think I appreciate AI for its ability to generate ideas. I feel like it's good to get the ball rolling, but don't roll the ball for me.” (P3)
- **Outlining:** “I have to do this final essay for my history final, and I just wanted some guiding points. I have to do the essay by hand in class.” (P8)

Results: Why do students use it?

Help with particular parts of academic work:

- **Studying:** "I use it for is studying for exams…you can ask it to make different questions about topics and it can test you." (P6)
- **Differentiation:** "I mean, nothing against any other subject, but things like biology, where it's not really my thing, I probably will take a lot of help from AI. But things like programming…that's where I'll have to make myself think." (P1)

Results: Why do students use it?

Time constraint:

- “You should always try first on your own, but if you're still not getting the thing and it's due in two days, you might not have times to make it to the office hours, weeks get busy, teachers cancel their office hours, random stuff comes up. It's not the end of the world to have a computer explain a foundational part of biology to you. It's not going to ruin it.” (P7)
- “Mainly my use for AI is last minute assignments that I didn't do…or if I'm really struggling and I'm not getting the help I need from a professor.” (P2)
- “It's kind of my go-to when I've got a lot of different stuff going on …Just need to get stuff figured out as quick as I can. (P6)

Concerns: accuracy

“Usually it gets it wrong if it doesn't list out all of its work, which is interesting. So now I fully let it write out its work, and I'm pretty confident in its ability to answer the questions, especially if I see the work and I know that the equation they're using looks right, but if I was using it for something very serious, I would not trust it.” (P2)

Concerns: accuracy

“I'm not 100% confident in its accuracy, which is why I generalize most of the things I ask. For example, there's one that I sent you with a quiz, even in that quiz maybe that I would do the calculations for something and then they would be like, ‘yo, that's wrong.’ And I'm like, ‘what do you mean it's wrong in class? I'm hearing that it's right.’ And they'd be, ‘oh yeah, sorry. Yeah, it's right.’ …so I'm not a hundred percent confident and I'm careful about what I ask.” (P5)

Concerns: accuracy

“I haven't had a ton of experiences where it's giving me wildly incorrect answers. So I'd say I'm fairly confident, but as always, my confidence varies in how important the information needs to be. So if it's very important, I'm not going to rely super heavily on it. But if it's making a recipe for dinner, I'm okay if it tells me to use a little bit more oil than I need to.” (P7)

Concerns: sycophancy

“Sometimes what I'm concerned about is even if I am, brutally wrong or absolutely out of line for a particular response. I don't want the model to say, “this is great, good start.” No, I need you to give it to me straight. Right?” (P1)

“I've heard that ChatGPT can be really reaffirming and positive and ‘you're doing great!’...I feel you have to be like, ‘listen, stop with all the flowery language. I just need you to explain this to me real quick.’” (P10)

Concerns: privacy and ethics

“I tried the ChatGPT last year, but I don't like ChatGPT because of just the company itself and the fact that they sell our info and all that stuff.” (P9)

“I guess my only concern with it is leaking personal information around about me.” (P2)

“I feel like there are a lot of really valid concerns with AI. For one, you're not really doing your own work and you're not learning for yourself. It's kind of just saying an answer, and then you're taking it. It's like you didn't have to do any work to get there, and you're not really learning these concepts for yourself.” (P8)

“I feel like if you're using it to substitute your own work or your own insight into something, then it's overstepping.“ (P10)

Concerns: overreliance

“I definitely feel like I've gotten almost more stupid since I've started using it, because it is very hard for me to write an essay now without any use of AI. I just like how it condenses what would be wordy from me and I like the sentence structure of it, but then it's hard because I'll use the essay that they give me, but then I have to change it in order to sound like human enough and not get AI flagged. And it probably takes longer to do that than to just like write my own thing.” (P2)

Concerns: overreliance

“I think it's becoming a little bit too much of a crutch for people, and that's where I'm becoming the most hesitant. If you can't go through a full day without looking at your phone and having to plug into ChatGPT, why something isn't working or you need help with something, I'm starting to get a little concerned.” (P7)

Libraries Chat Transcript Data

Started with the question classification framework in Radford and Connaway (2013) as applied by Costello (2025)

- Subject search (45%)
- Holdings search (42%)
- Procedural (13%)

Insignificant levels of ready reference-type questions, most questions were searching for sources on a topic or holdings/known item searches.

Results: Gen AI Transcript Data

The type of questions found in the AI transcripts are different:

- Interpretive (49%)
- Ready reference (24.5%)
- Research process (15%)
- Procedural (7.5%)
- Subject searcy (4%)

Nearly all interpretive and procedural questions represented in the transcripts represented forms of questions that are not well represented in library chat due to the nature of the service.

Results: Transcripts

- Consistency within participant transcripts, not between participants
- What participants are hearing from their instructors: It's a mix
  - Some are requiring students to use AI as part of assignments
  - Some have conditional use or transparency requirements
  - Some restrict use or have changed assessment to prevent use of AI (one participant mentioned taking a blue book written test)

Discussion

- Connecting this back to reference and instructional frameworks:
  - Convenience/intimidation factor
  - Trust and privacy
- Instruction and Information
- Query clarification: Models are largely not doing this
- Content/Relational model

Discussion

1. Our concepts of information may not fit into new information environment. This will require an openness to radical change.

1. What “AI” means is changing and we will need to re-evaluate our value in the research process.

1. Work with students as *co-learners*.

Practical Implications

- There are equity implications.
    - Benefits for multilingual students, students with learning disabilities, etc.
    - New digital divide
- Students are constructing their own AI ethics.
- Students choose to use AI for a variety of reasons. All the more reason to engage with them about AI.
- We need to stay up to date on AI.

FINAL THOUGHT

We have the opportunity to bring our knowledge, skills, and ethics to this conversation.