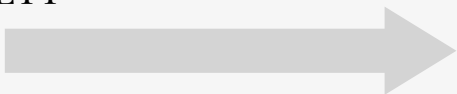# Undergraduate Perspectives on AI at CU Boulder

Ameenah Razi, Ellen Kedzierski, August Milliken,
Educational Technology Research Assistants

Rebecca Lee, Student Initiatives Coordinator
ASSETT

Summer Design
Studio – 5/20

Scan here for our slides!

Agenda

1 — Introduction

2 — Participant Demographics

3 — Preliminary Analyses (Quant & Qual)

4 — Conversation about Implications

Introduction

Timeline: Survey conducted March '25, with follow-up interviews April-May '25

Research Questions:

1. What are CU Boulder students' attitudes toward and knowledge of generative AI?

2. How and why do CU Boulder students use generative AI in an educational context?

3. What generative AI training and policies do CU Boulder students want to see going forward?

Recruitment

- Distributed by professors, physical flyers, and banner on Canvas

- Respondent incentives for taking survey: extra credit or entry into a gift card raffle

Excluding Survey Responses

Total Responses: 3907

Responses excluded for: preliminary round of testing survey, not submitting survey, leaving most questions blank, not qualifying to participate

Final sample size: 3084

Demographics: College

CU Breakdown	Survey Respondents
Arts and Sciences - 45.2%	Arts and Sciences - 63.5%
Engineering - 21.8%	Engineering - 17%
Business - 13.9%	Business - 11%
CMCI - 8.2%	CMCI - 6.9%
ENVD - 2.1%	ENVD - 1.1%
EDU - 1.5%	EDU - 1.4%
Music - 1%	Music - 0.7%
other (including exploratory studies) - 8.2%	other (including exploratory studies) - 3.8%

Note: Percentages don't add up to 100 due to double majors

Demographics: Class Level

What is your class standing at CU?

○ First Year
○ Second year
○ Third year
○ Fourth year
○ Fifth year (or more)
○ Not listed here - Please specify below

CU Breakdown

First - 16.8%

Second - 26.5%

Third - 22.5%

Fourth - 25.6%

Fifth - 8.7%

Survey Respondents

First - 29.1%

Second - 25.5%

Third - 22.4%

Fourth - 19.2%

Fifth - 2.8%

Non-degree/Other - 1.1%

Demographics: Gender

CU Breakdown

Women - 46.6%

Men - 53.4%

Survey Respondents

Women - 60.5%

Men - 36.2%

Non-binary, Genderqueer/Gender - 5.2%
non-conforming, Agender

I'd rather not say/not listed - 0.9%

Demographics: Race

How do you identify in terms of your race and ethnicity? Please choose all that apply.

☐ African American/ Black
☐ American Indian/ Alaska Native
☐ Arab
☐ East Asian
☐ South Asian
☐ Caucasian/ White
☐ Latino/a/x/e
☐ Pacific Islander (Including Native Hawaiian)
☐ Not listed - please specify
☐ I'm not sure or would rather not say

CU Breakdown

Caucasian/White - 66.6%

African American/Black - 3.1%

Latino/a/x/e - 13.8%

Asian - 10.7%

American Indian/ Alaska Native - 1.6%

Pacific Islander - 0.6%

None, not listed - 1.0%

International - 2.7%

Survey Respondents

Caucasian/White - 79%

African American/Black - 4.2%

Latino/a/x/e - 12.7%

East Asian - 6.2%

South Asian - 5.3%

American Indian/ Alaska Native - 1.1%

Pacific Islander - 0.8%

Arab - 1.3%

None, not listed - 1.9%

Not sure/ would rather not say - 1.4%

10

General AI Use & Attitudes

Which AI-powered tools do you use?*

- Chat-GPT — 85.4%
- Grammarly — 46.8%
- Google AI Overview — 19.9%
- Gemini — 15.0%
- Microsoft Copilot — 11.6%
- I don't use AI tools — 8.6%

Number of Students
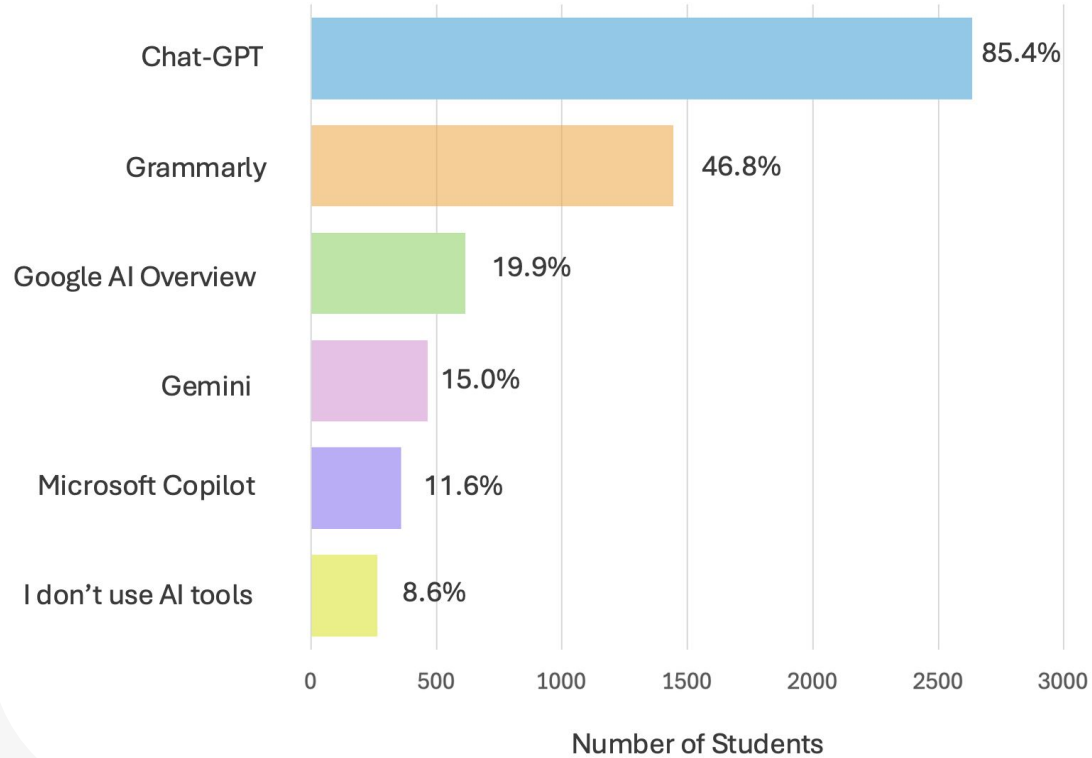
*Top 5 are displayed; total percentage is above 100% as students checked multiple boxes

Where do you typically get information about AI?

- Peers — 76.5%
- Social Media — 68.5%
- Professors/Educators — 57.6%
- News Sources — 52.1%
- Family — 21.4%
- Peer-Reviewed Articles — 15.3%
- Other — 2.0%

Number of Students
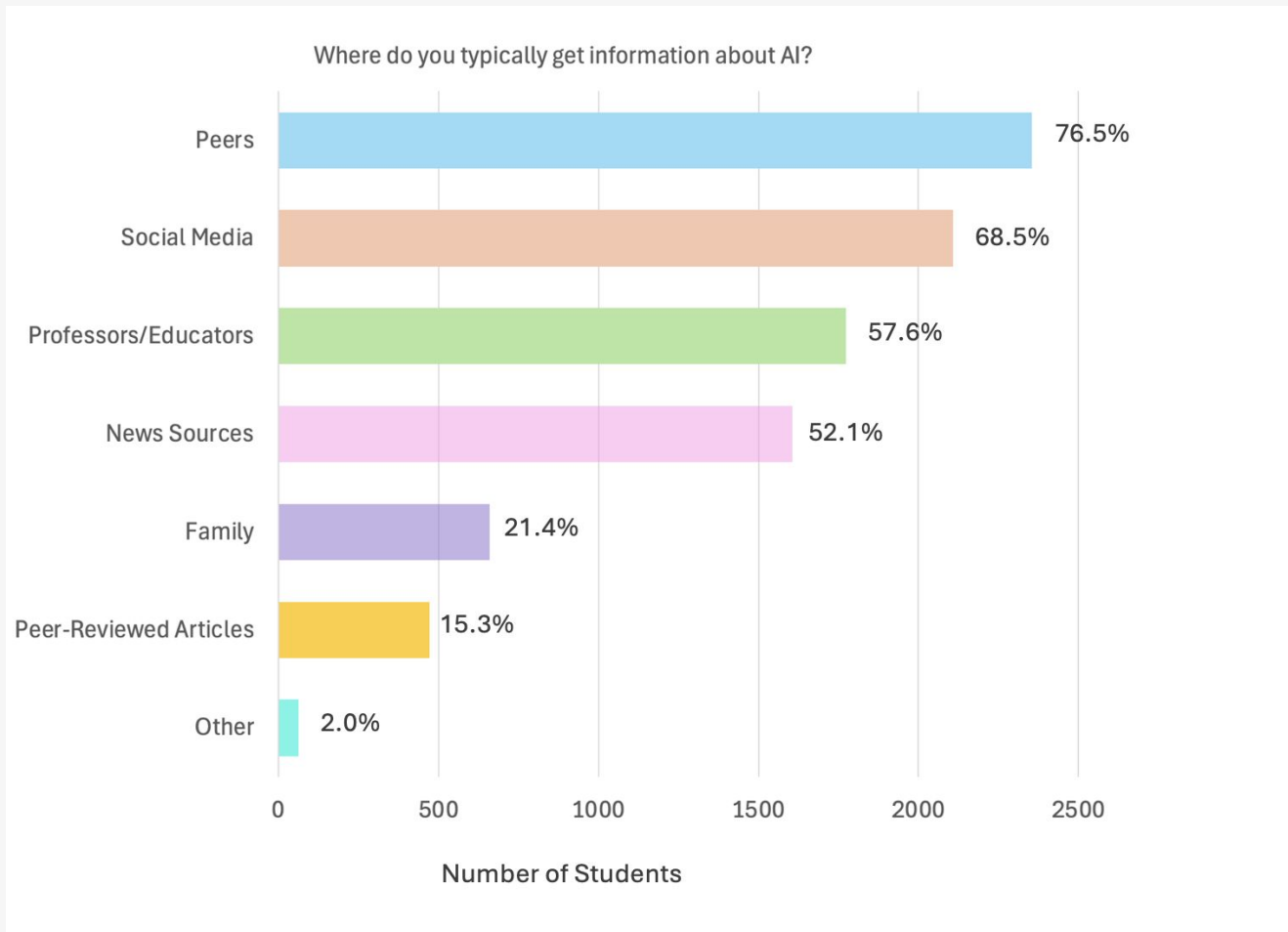
How would you rate your overall attitude toward AI?

- Very negative, 7.0%
- Very positive, 16.9%
- Somewhat negative, 16.0%
- Somewhat positive, 38.3%
- Neutral, 21.8%
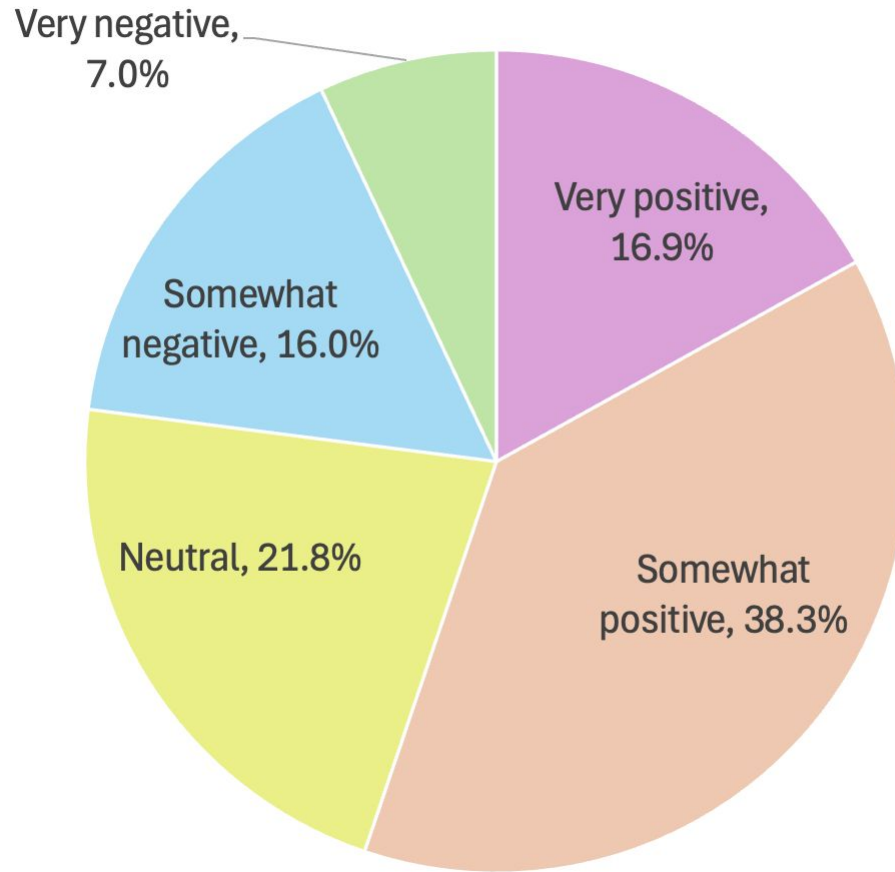
Interview Excerpts

Positive

"I would say I'm generally AI positive. I think it's a very useful tool. I do think that there needs to be more studies done on how it impacts the environment as well as how it sources its information. But, on the user end of it, I think it's a very useful tool that can definitely help in a lot of different applications."

Interview Excerpts

"I think it's a really dangerous tool. I think that it will have helpful components for sure, but when new technology arises, we tend to look at how it can help us in the short term and how we can benefit from it, and I think it's really important that we assess it for how it can hurt us and take away jobs, and the ethical considerations surrounding it."

It is important to me to understand how AI works in order to feel comfortable using it.
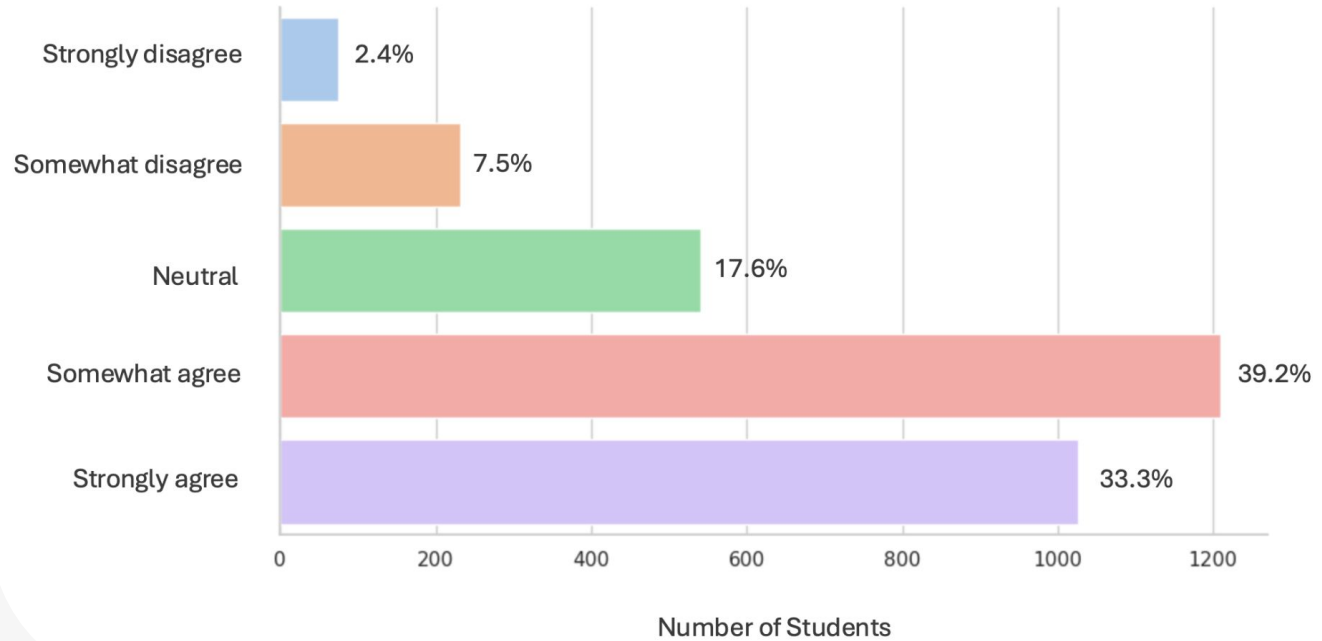
I can explain how AI works.

- Strongly disagree — 8.0%
- Somewhat disagree — 20.2%
- Neutral — 22.0%
- Somewhat agree — 38.3%
- Strongly agree — 11.5%

Number of Students
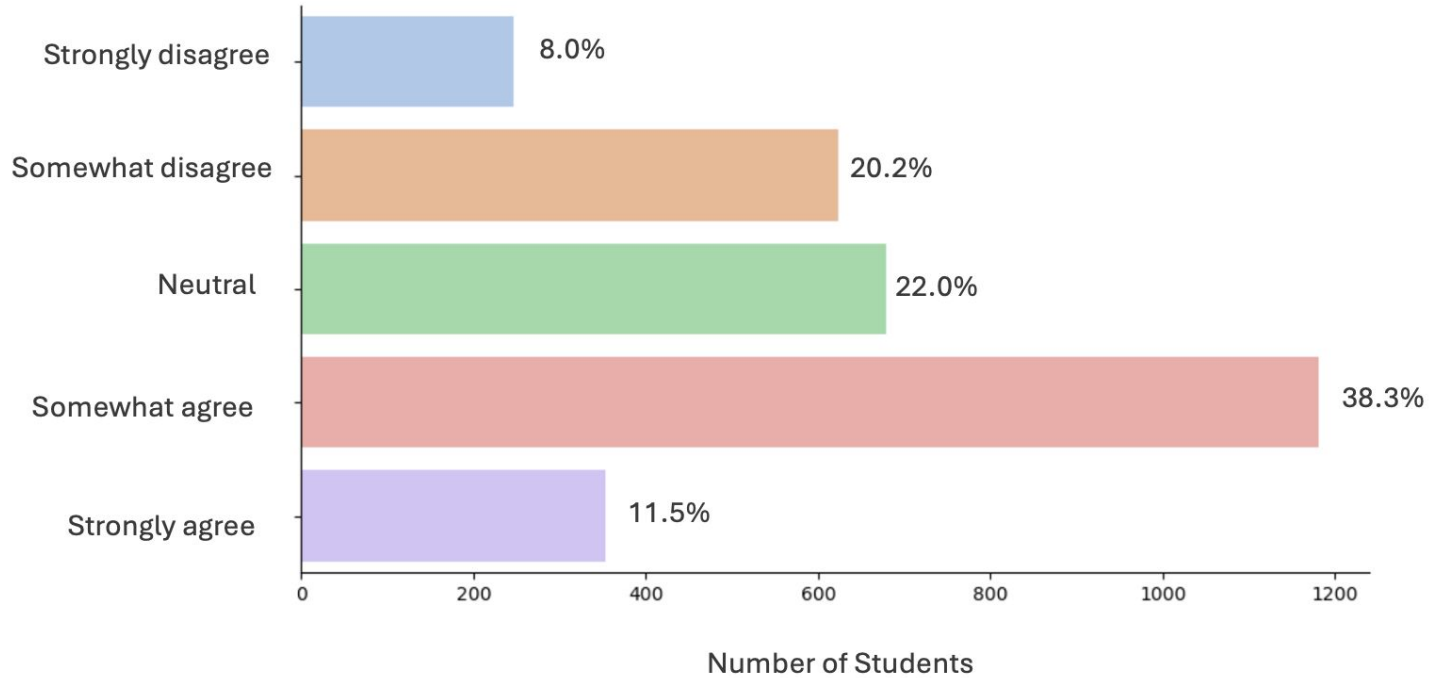
Academic Use of AI

What kinds of academic work do you use AI for?

I use AI for the **preliminary** stages of academic work (i.e. brainstorming, help with organization, summarizing or rewording instructions, etc.) — 69.8%

I use AI to **troubleshoot** (i.e. checking spelling and grammar, debugging student-created programs, etc.) — 64.7%

I use AI to **complete sections** of my academic work (i.e. using AI to write certain programming functions, generate sentences for a writing assignment, answer some exam/quiz questions, etc.) — 21.9%

I use AI to **complete my entire academic work** for me (i.e. using AI to write a discussion post response for you, create an entire computer science program, write an essay, etc.) — 3.9%

I use AI as a **study tool** (i.e. note taking/summarizing, generating practice questions, breaking down complex concepts, etc.) — 65.0%

Other — 5.0%

I **don't use** AI in academic work at all. — 10.7%

Number of Students

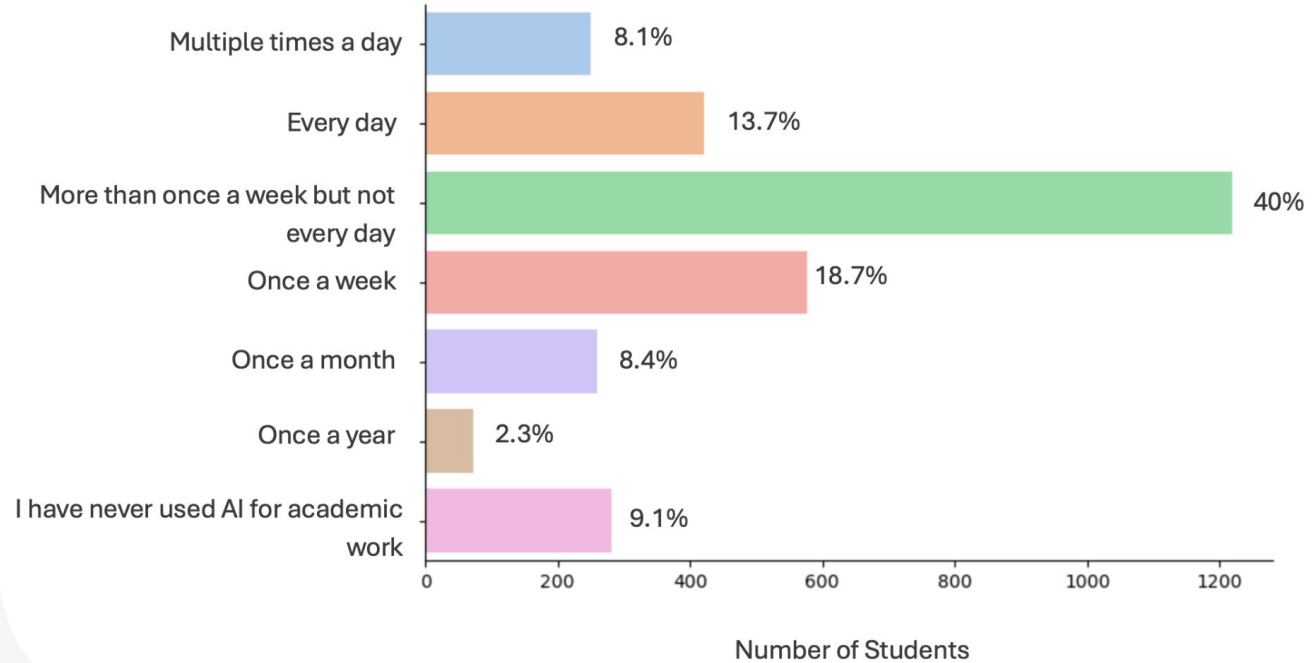# Interview Excerpts

What Part of Process

"Most assignments that I use AI for, I'll use it at the beginning and the end. So, sometimes for brainstorming, if I need to bounce some ideas off of something or someone. I feel like usually I would rather do that with a person but that's not always an option, so it can be useful for that."
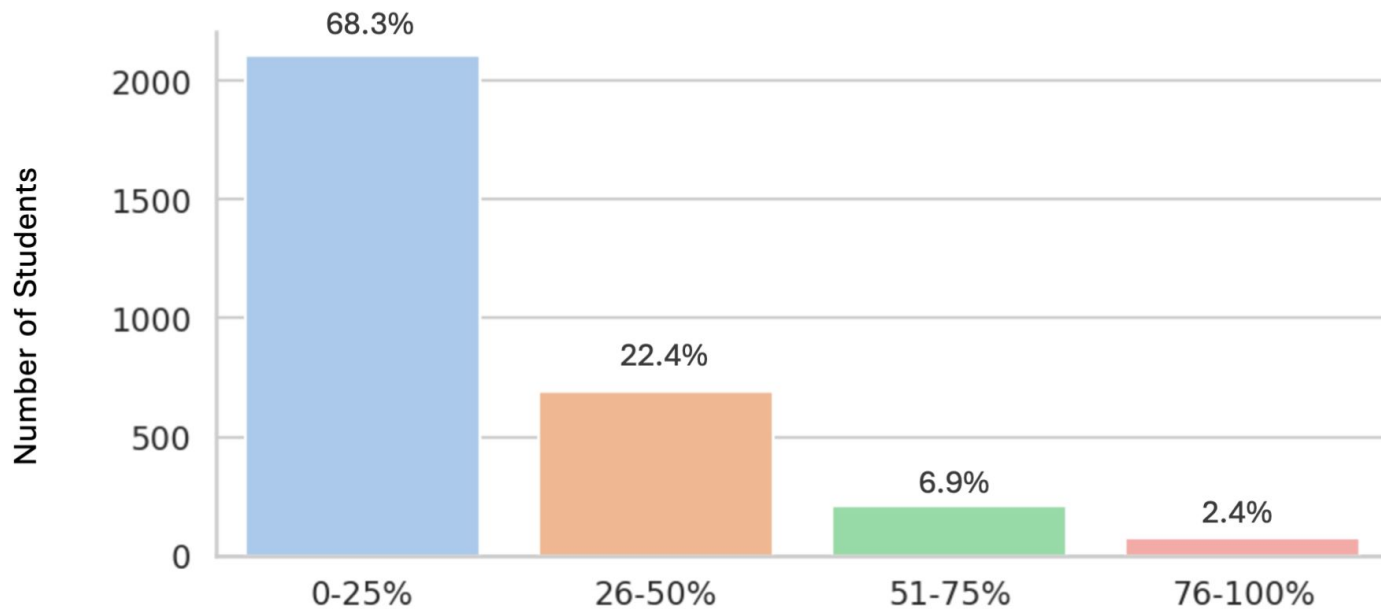
Interview Excerpts

Type of Work

"I think, um, anything that's more, like I was saying, original research based or really historically focused, I'm less likely to use it. Versus anything that is, uh, a little bit more tangible like math, um, or coding, I'm more likely to trust what it's giving me."

How often do you use AI for academic work? Please exclude cases where AI use is required.

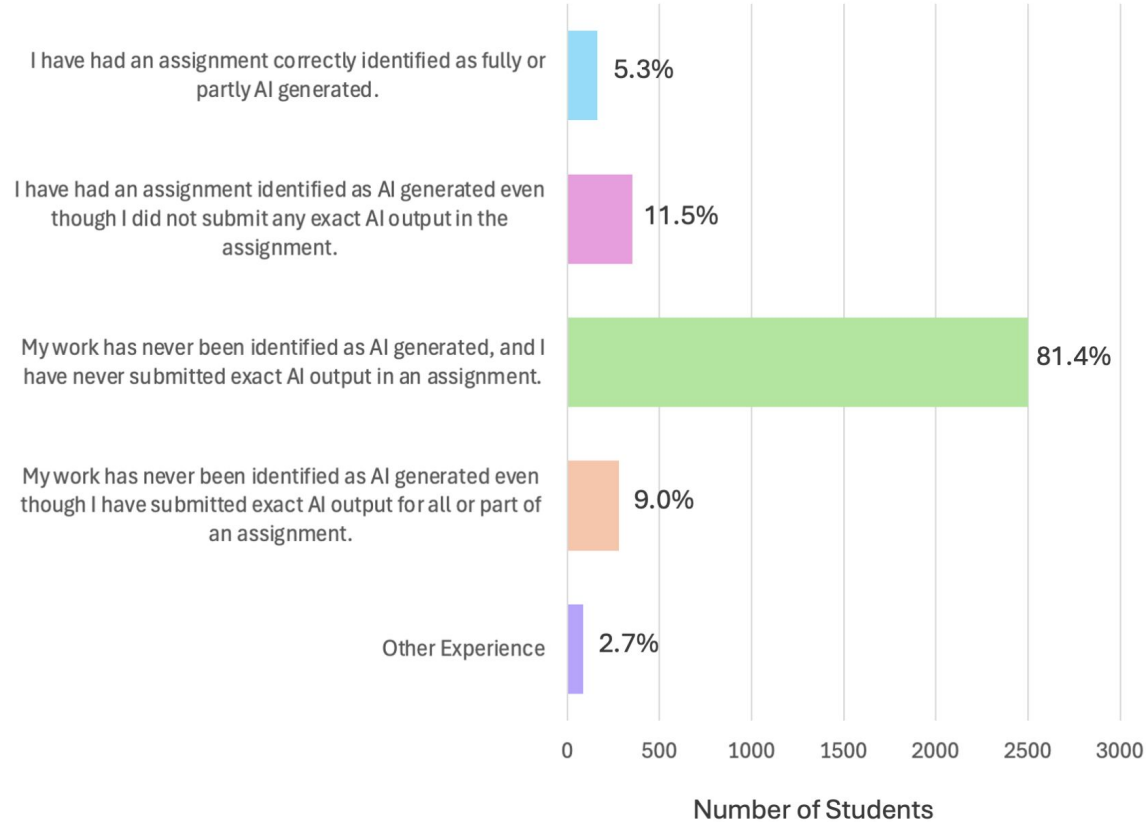| Response	Percentage
Multiple times a day	8.1%
Every day	13.7%
More than once a week but not every day	40%
Once a week	18.7%
Once a month	8.4%
Once a year	2.3%
I have never used AI for academic work	9.1%

Number of Students

What percentage of your academic work do you use AI for?

Have you had any assignment identified as AI generated by an instructor or grader?

*Total percentage adds up to more than 100% - respondents selected multiple boxes

Interview Excerpts

"I would say yes, from the aspect that I have had and assignment or two flagged before where I didn't use AI and they came back as partially AI written. But I also don't, at least in my experience, haven't had it be a... massive concern. My professors have just said, 'hey, this came back as AI generated, did you use AI?' and I said, 'no, here's my, edit history on this assignment', and that was the end of it. There was no real recourse or punitive behavior, it was just a quick conversation where my—and it wasn't very accusatory at all, my professors were just—simply asking a question that I then answered, and that was the end of it."

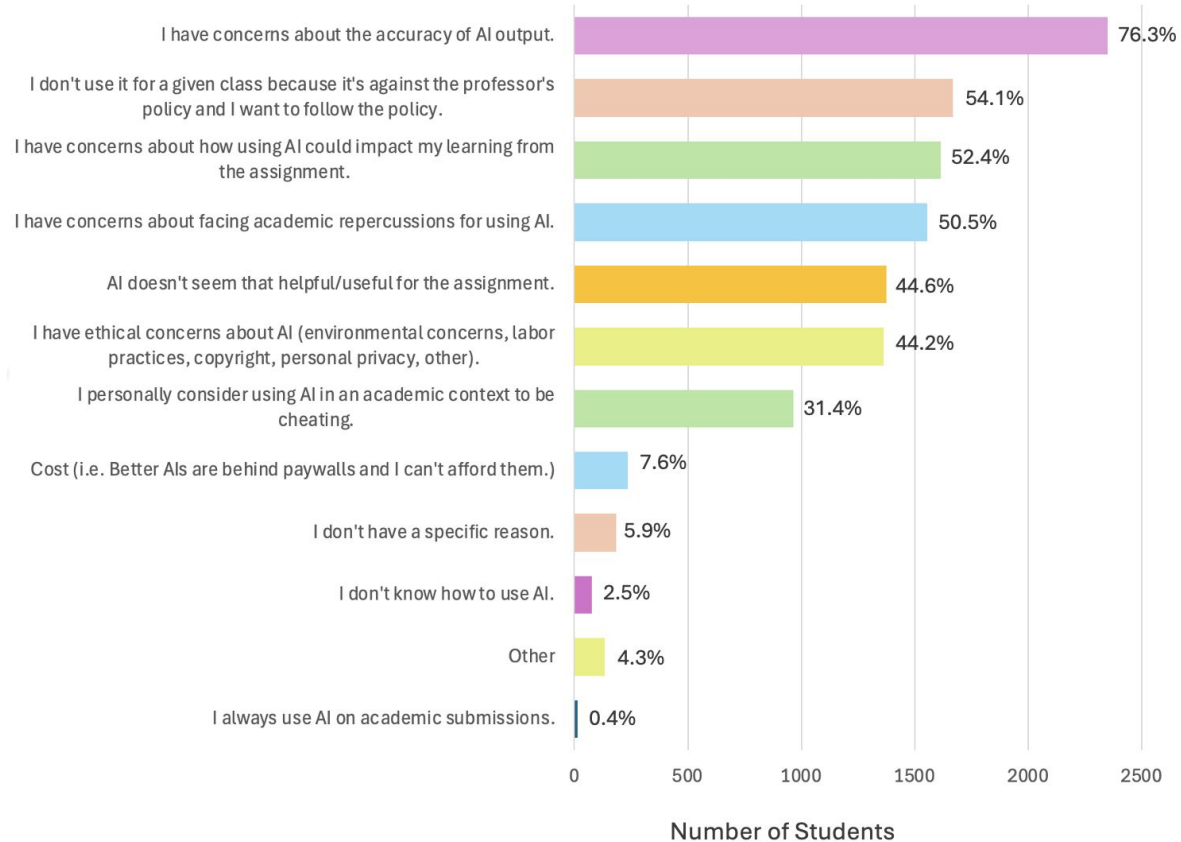When you decide to use AI for a given assignment, what are the main reasons that drive your decision?

Reason	Percentage
AI helps me get started when I'm stuck.	73.5%
AI helps me understand the material.	60.4%
AI helps me finish the assignment more efficiently.	33.4%
I find using AI easier than seeking help from a person.	30.8%
I don't have time to attend office hours, go to a help room, or seek tutoring	25.9%
I do not have enough time to complete the assignment.	22.6%
I am invested in the assignment and AI can make my work even better than it already is.	18.0%
My professor/course requires it.	17.0%
I don't enjoy the material, or I don't find it interesting.	14.9%
The assignment does not have a big impact on my grade.	10.3%
The assignment has a big impact on my grade.	9.0%
I don't feel like completing the assignment will contribute to my education in the long run.	8.3%
Other	3.8%
I do not use AI on academic submissions.	12.1%

Number of Students

Interview Excerpts

"The only class I've ever really reached for AI, for anything, is in my data science class. A lot of times, I'll give the homework a shot and then, normally, I'm working on the homework anywhere from 10 PM to 3 AM, just with my school and work schedule messing it up. And because that's not an easily accessible 'ask questions' time if I get lost on what's like the starting process to do this, I'll ask ChatGPT, like, 'How do I find this thing?' or, like, 'What equations am I even looking for?'"

When you decide NOT to use AI for a given assignment, what are the main reasons that drive your decision?

Reason	Percentage
I have concerns about the accuracy of AI output.	76.3%
I don't use it for a given class because it's against the professor's policy and I want to follow the policy.	54.1%
I have concerns about how using AI could impact my learning from the assignment.	52.4%
I have concerns about facing academic repercussions for using AI.	50.5%
AI doesn't seem that helpful/useful for the assignment.	44.6%
I have ethical concerns about AI (environmental concerns, labor practices, copyright, personal privacy, other).	44.2%
I personally consider using AI in an academic context to be cheating.	31.4%
Cost (i.e. Better AIs are behind paywalls and I can't afford them.)	7.6%
I don't have a specific reason.	5.9%
I don't know how to use AI.	2.5%
Other	4.3%
I always use AI on academic submissions.	0.4%

Number of Students

Interview Excerpts

One

"I think that creating is something that gives you a lot of authority, and using AI is very passive. It kind of takes away your independence and, again, it kind of takes away from your own decision making and creation."

Interview Excerpts

"I think it's important that I do understand it and that I do struggle. I think that it's a really important part that we struggle and that we have moments that we're like, 'Ugh, I really don't get it, and now I need to use other resources.' Honestly, I think if I did use it really often, then I would kind of just fall into being like, 'Well, let me do this because this is easier, and then I don't have to think about this assignment, or stuff doesn't have to pile up,' but I think that one of the important parts of specifically college is to fail, and to understand that, 'This is how I learn, I do need to go to class, I do need to pay attention,' without having, I don't want to say an easy way out, but maybe, a way that you don't really have to challenge yourself as much."

Future AI Policies & Practices

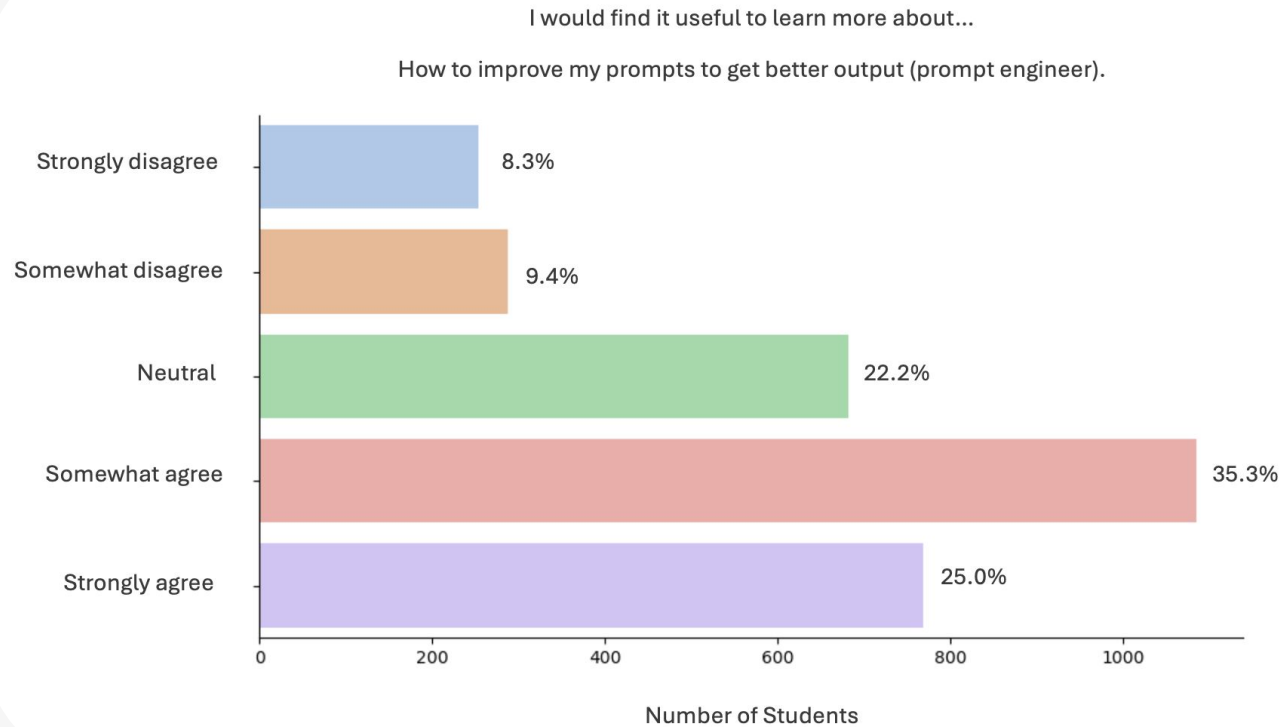I believe AI will play a big role in my future career.
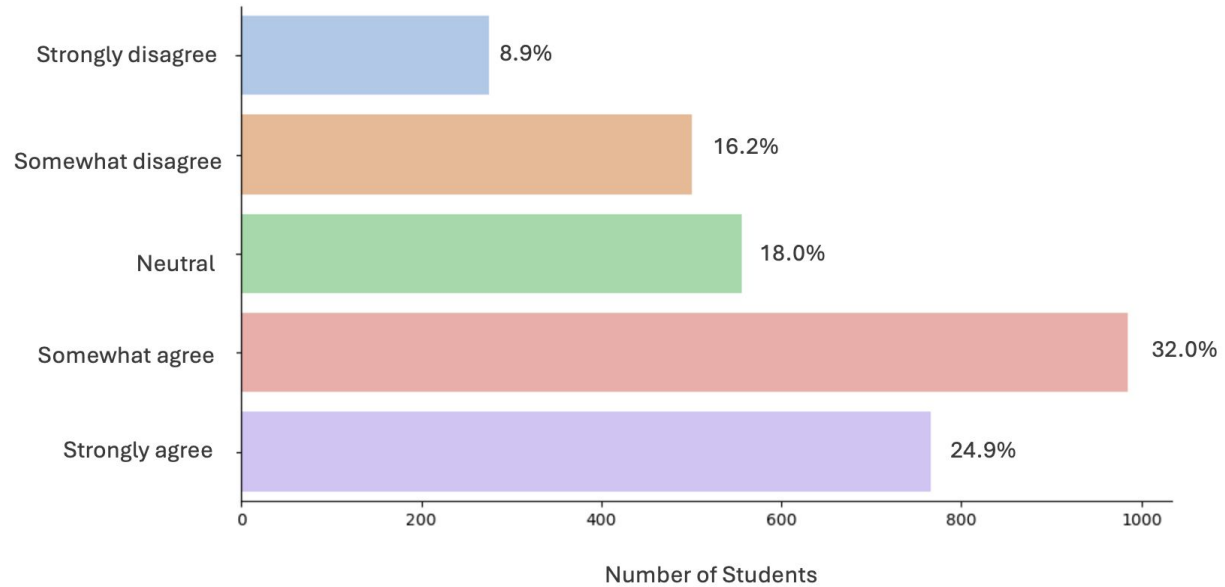
Interview Excerpts

One

"Overall, I think so because it's not something that's going to go away, and it's better to understand its application and how it can be used to further academic research and in an academic setting, as opposed to simply trying to avoid it, and I don't really think you could avoid it, so, I definitely think it would be useful to understand it in an academic setting."
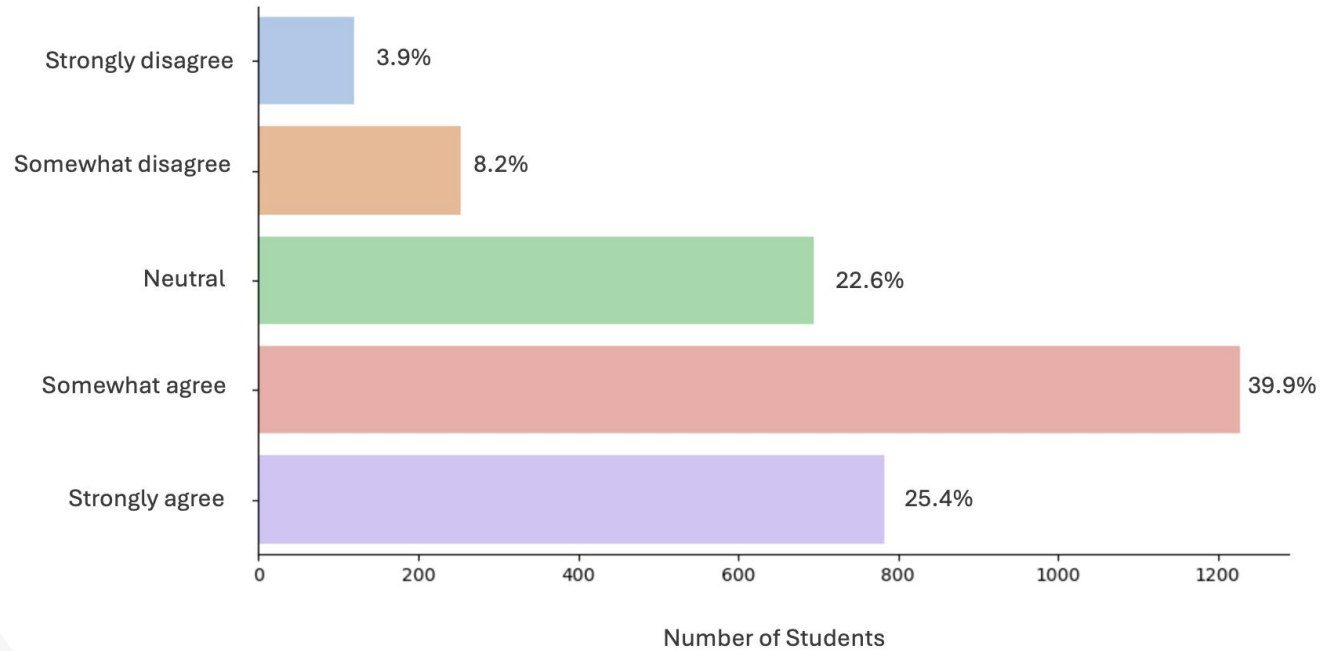
Interview Excerpts

"Even if it is starting to encroach into positions and stuff, it shouldn't be a focus in higher education outside of classes that involve it. If CU does implement an AI class, depending on your major you might have to take the class because it still will affect certain positions, but doesn't affect everyone."
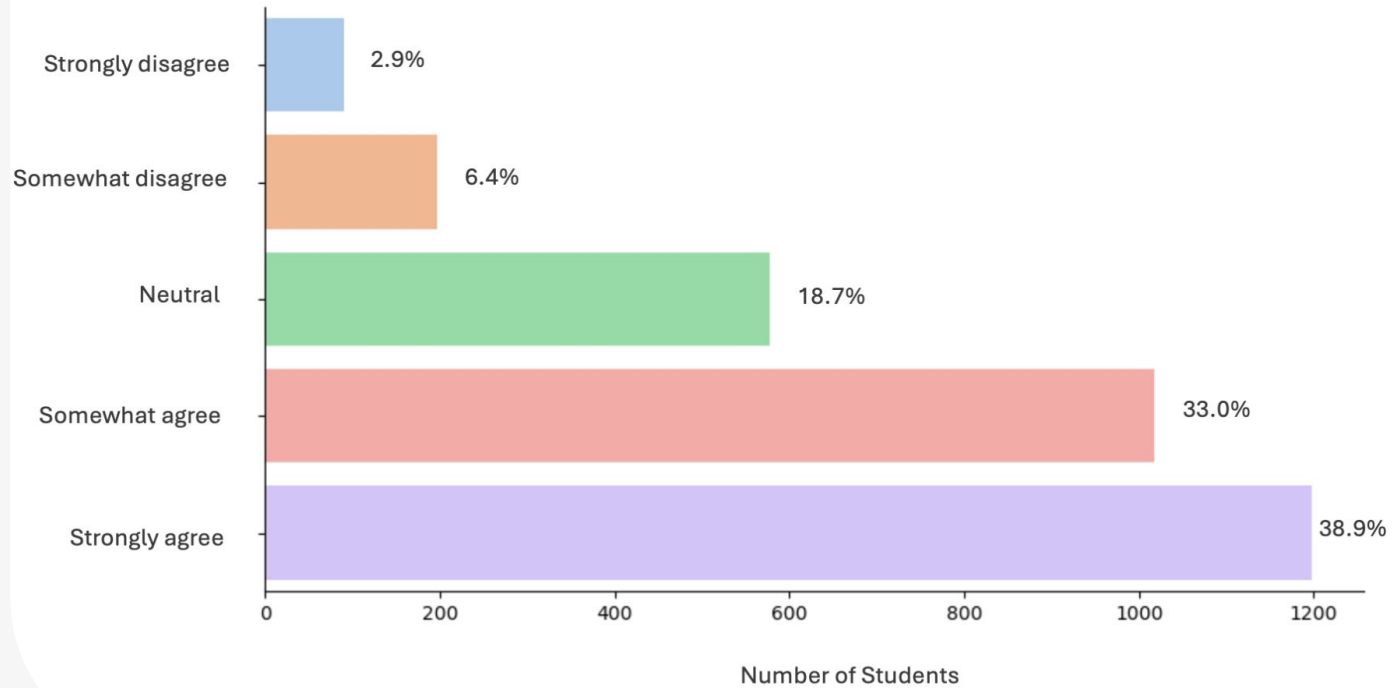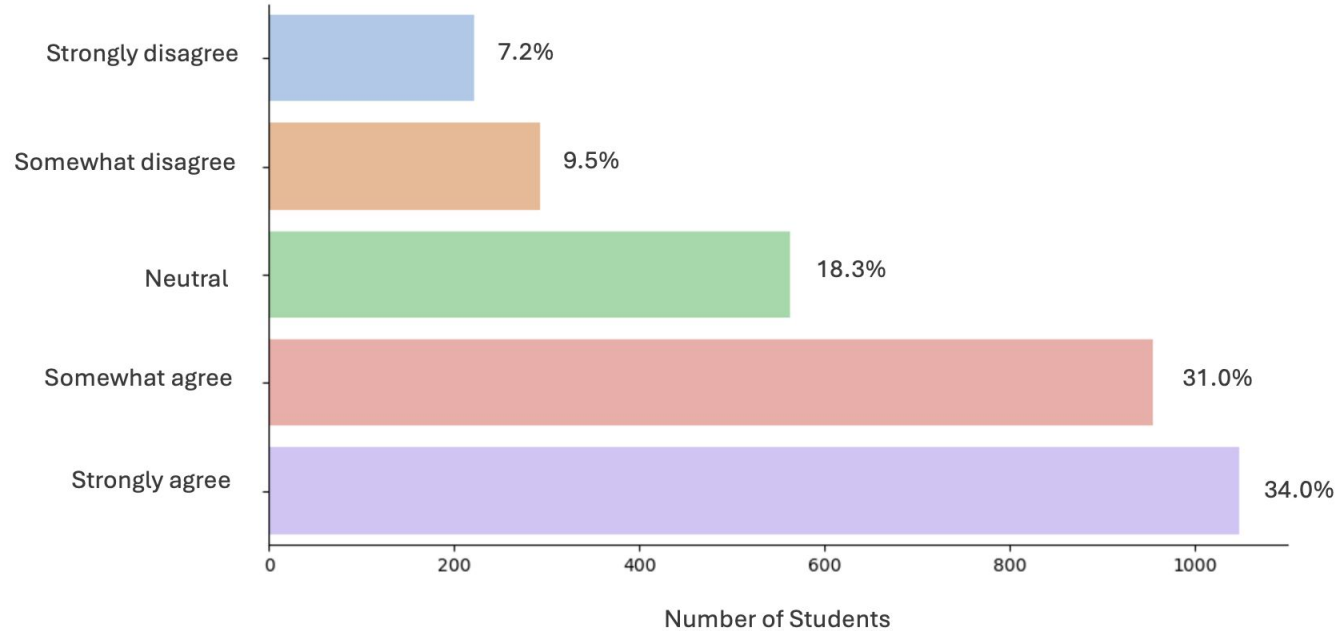
I would find it useful to learn more about...

How to improve my prompts to get better output (prompt engineer).

I would find it useful to learn more about...

How AI models work.

Strongly disagree — 3.9%
Somewhat disagree — 8.2%
Neutral — 22.6%
Somewhat agree — 39.9%
Strongly agree — 25.4%

Number of Students

I would find it useful to learn more about...

The ethics behind AI use.

- Strongly disagree — 2.9%
- Somewhat disagree — 6.4%
- Neutral — 18.7%
- Somewhat agree — 33.0%
- Strongly agree — 38.9%

Number of Students

I would find it useful to learn more about...

How to use AI in my future career.

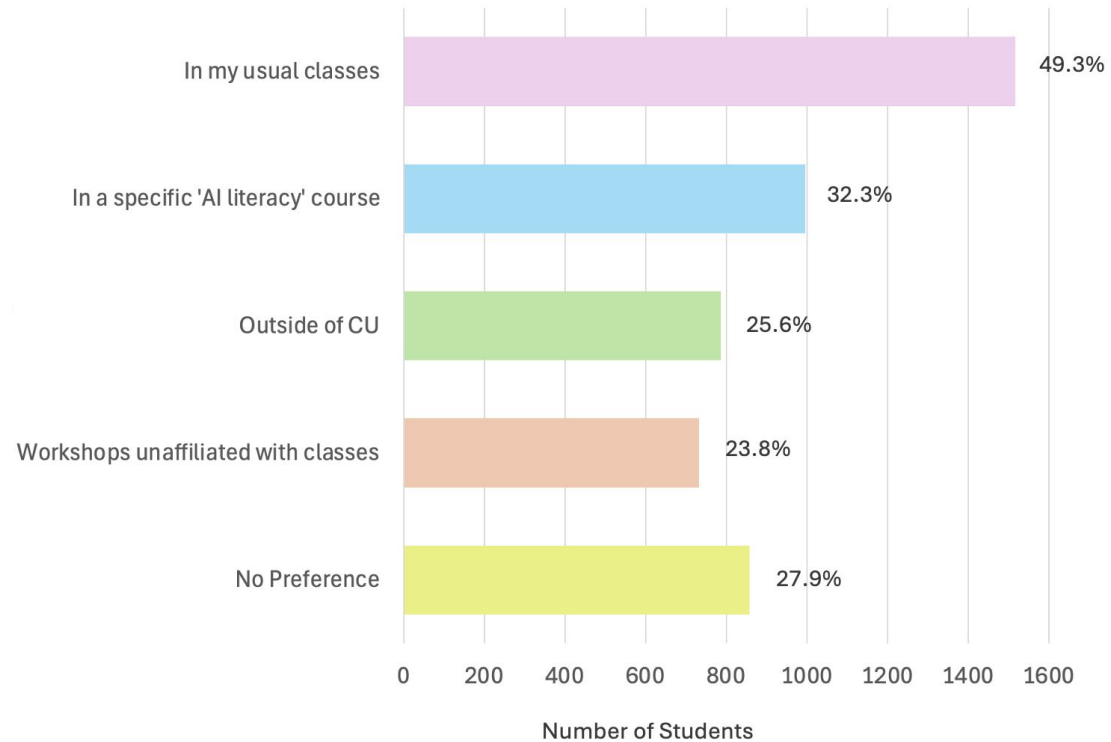|	Number of Students
Strongly disagree	7.2%
Somewhat disagree	9.5%
Neutral	18.3%
Somewhat agree	31.0%
Strongly agree	34.0%

I would find it useful to learn more about...

What AI can and cannot do to improve my academic work and learning.

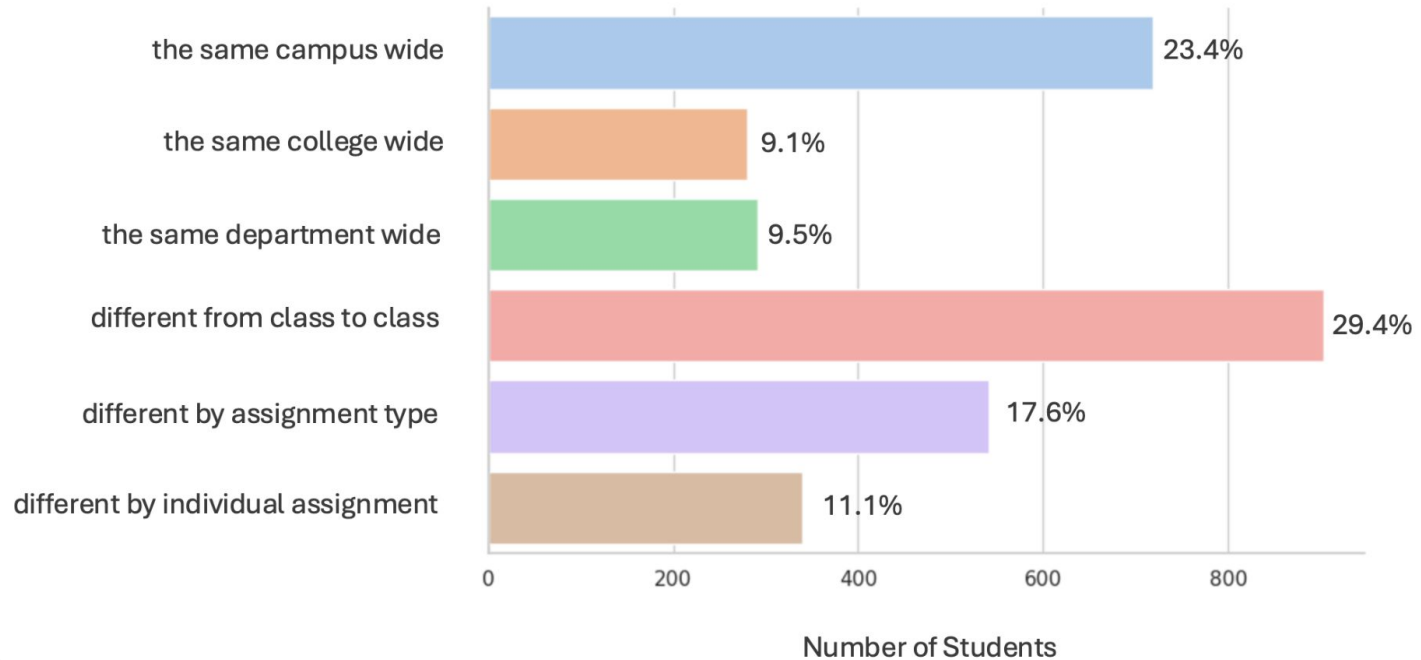Strongly disagree — 4.6%
Somewhat disagree — 6.5%
Neutral — 20.3%
Somewhat agree — 37.3%
Strongly agree — 31.3%

Number of Students
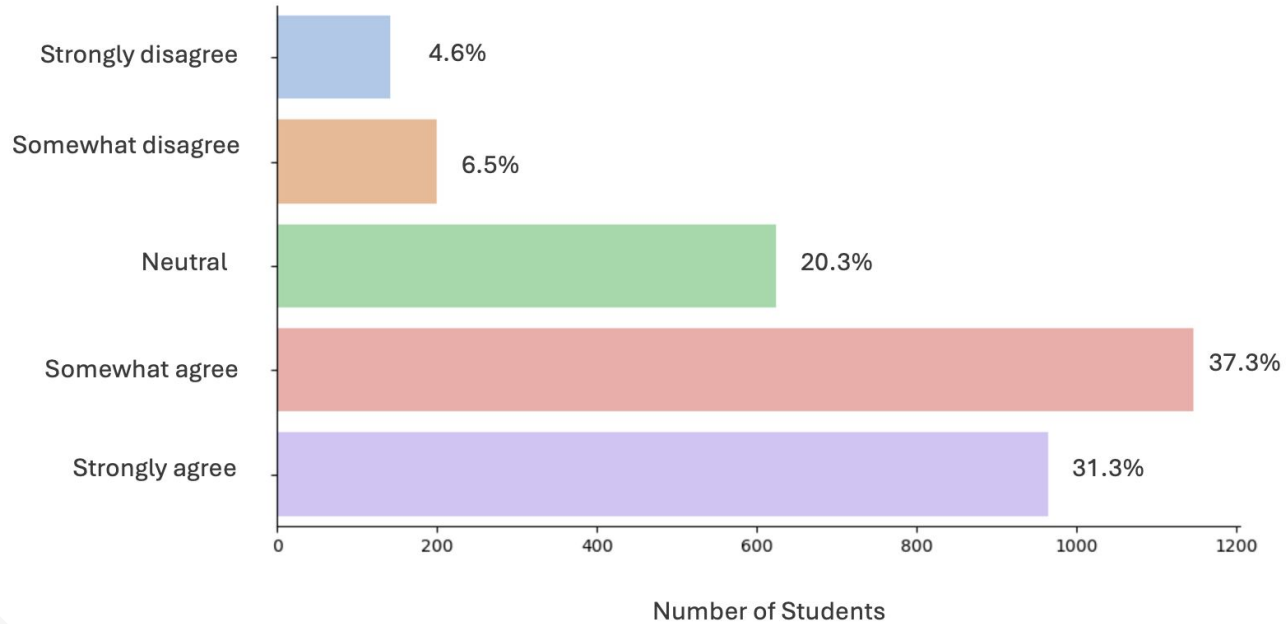
Where would you like to learn the skills and information from the previous question?
Choose all that apply.

In my usual classes — 49.3%
In a specific 'AI literacy' course — 32.3%
Outside of CU — 25.6%
Workshops unaffiliated with classes — 23.8%
No Preference — 27.9%

Number of Students

At CU, I want the AI policy to be _____.

Category	Number of Students	Percentage
the same campus wide		23.4%
the same college wide		9.1%
the same department wide		9.5%
different from class to class		29.4%
different by assignment type		17.6%
different by individual assignment		11.1%

Number of Students

Interview Excerpts

Class by Class Policy

"I don't necessarily think that a university-wide policy makes sense, because different disciplines can use AI for different—at—at different amounts. Uh, I would say maybe a major-by-major AI policy, or a department-by-department, um, policy. Where, for certain class—like, for all history classes, it's the same. For all political science classes, it's the same. As opposed to class by class."
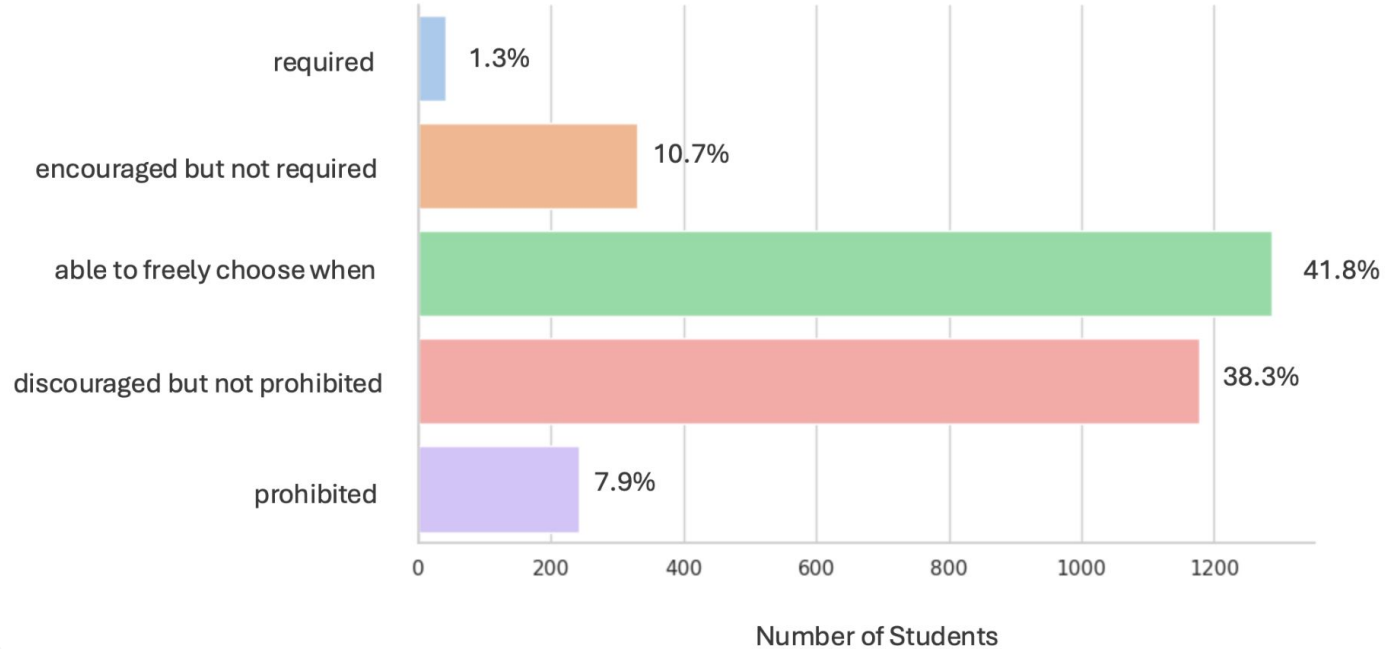
Interview Excerpts

University–wide Policy

"I think there should be a university wide policy around submitting AI work as your own because that is plagiarism and under a plagiaristic view, where submitting AI work as your own is not allowed in any way whatsoever."
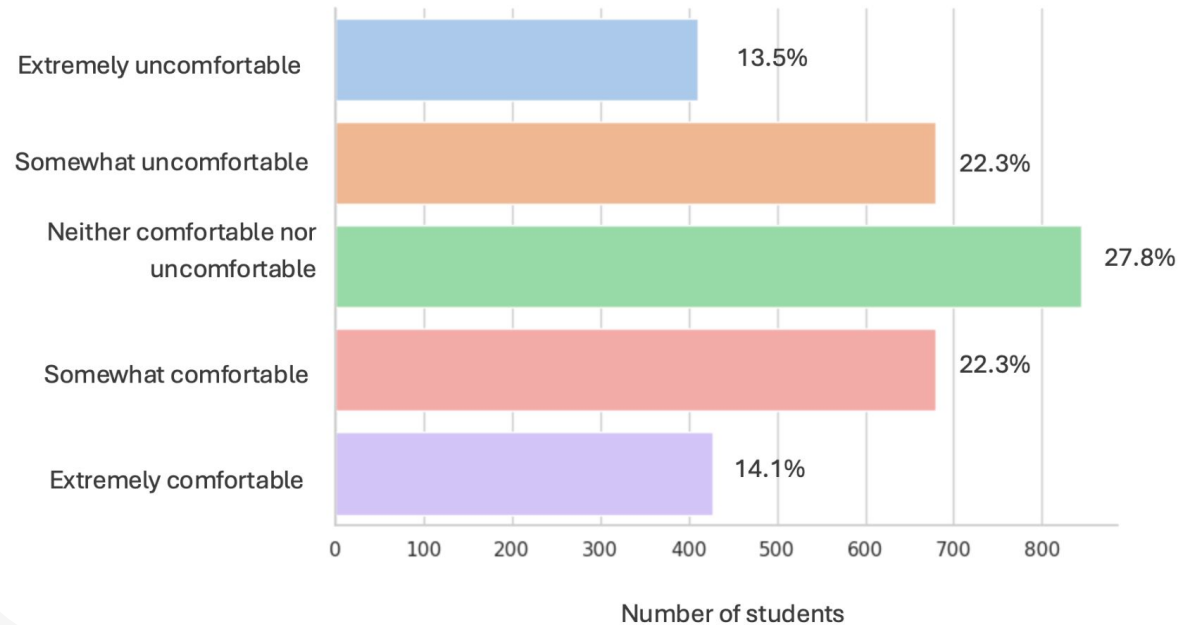
...

"Class by class policies should still be allowed; however, they should not be overriding the university policy unless the class is, like, how to use AI work or something like that."
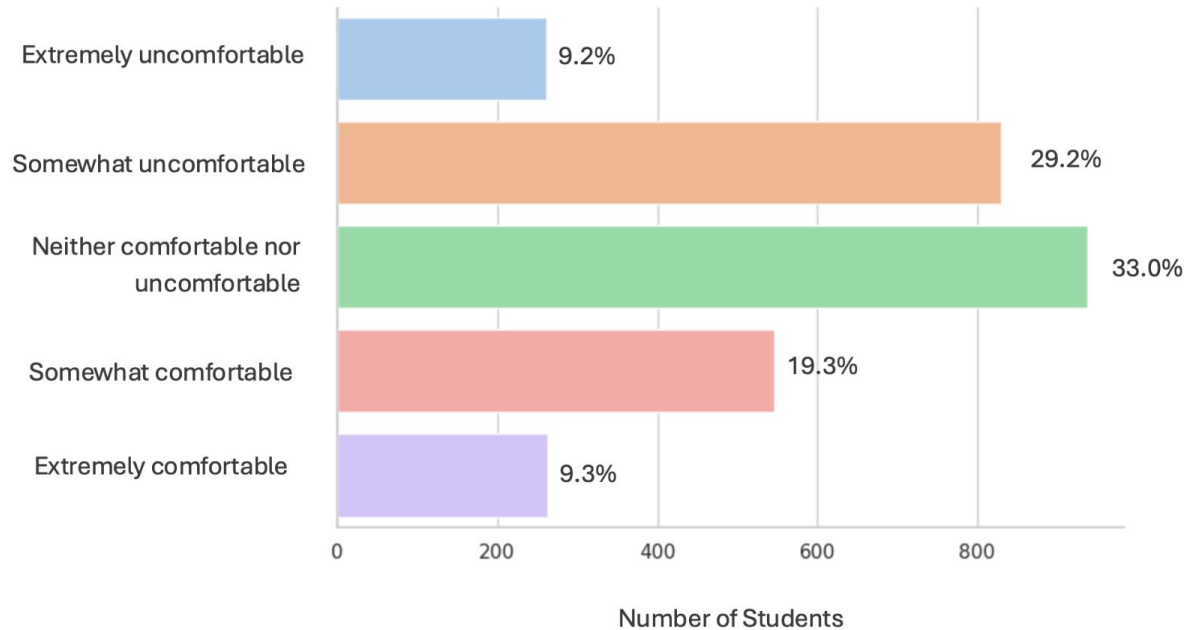
I think students should be _____ to use AI in their classes at CU.

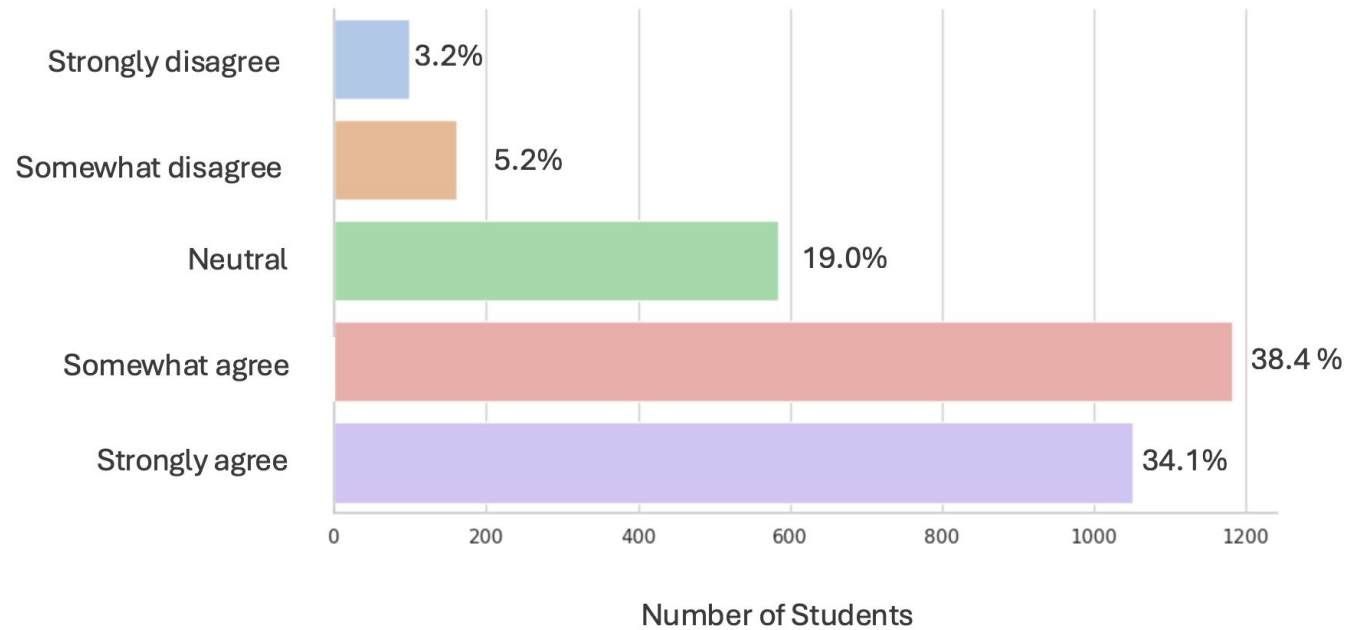|	Percentage
required	1.3%
encouraged but not required	10.7%
able to freely choose when	41.8%
discouraged but not prohibited	38.3%
prohibited	7.9%

Number of Students

How comfortable would you be with students being required to use AI in a class at CU?

Extremely uncomfortable — 13.5%
Somewhat uncomfortable — 22.3%
Neither comfortable nor uncomfortable — 27.8%
Somewhat comfortable — 22.3%
Extremely comfortable — 14.1%

Number of students

How comfortable would you be with students being prohibited from using AI in a class at CU?

Extremely uncomfortable — 9.2%
Somewhat uncomfortable — 29.2%
Neither comfortable nor uncomfortable — 33.0%
Somewhat comfortable — 19.3%
Extremely comfortable — 9.3%

Number of Students

I would like guidance from my professors on acceptable AI use in class.

Category	Percentage
Strongly disagree	3.2%
Somewhat disagree	5.2%
Neutral	19.0%
Somewhat agree	38.4%
Strongly agree	34.1%

Number of Students

Interview Excerpts

Good Guidance

"But she did open and invite a conversation where we could kind of set expectations and raise concerns as a class without fear of repercussions. And that felt very nice, because I think whenever you talk about anything that, that could tiptoe into honor code violation territory, there's a lot of fear of, if I even question this, am I all of a sudden someone they're gonna look at as someone who could do this thing? So having that space very explicitly where it was already, like, a well-established trust between the students and the professor that, if she said there weren't gonna be consequences, there weren't gonna be consequences."

49

Interview Excerpts

More Guidance Needed

"I guess there's always the gray areas though, 'cause it's like, okay, I'm not going to completely turn in a paper of AI, can I make my outline with AI? Can I get all my sources from AI?"

If AI use was permitted in class, I would be comfortable disclosing my AI use.

Strongly disagree — 2.9%
Somewhat disagree — 7.1%
Neutral — 22.2%
Somewhat agree — 33.2 %
Strongly agree — 34.5%

Number of Students
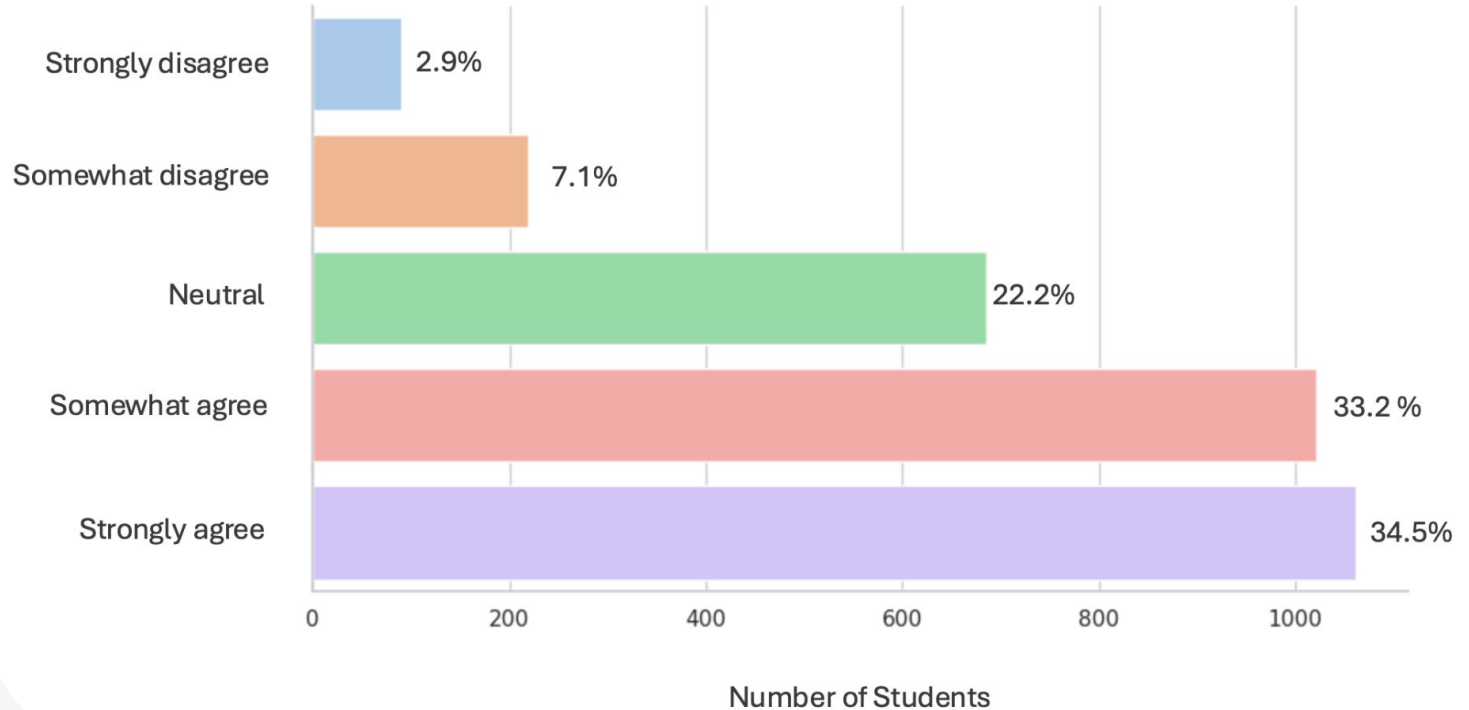
Interview Excerpts

"I definitely think that encourages my use of AI. It kind of takes the stigma away from using it, where, if I can explain to my professor why I'm using it and validate, 'Hey, I really thought this was necessary, here's why', I definitely think that opens the door for me to do so, as opposed to a professor who either outright forbids it or doesn't mention it in their syllabus, where I don't really understand what the grounds for it are."

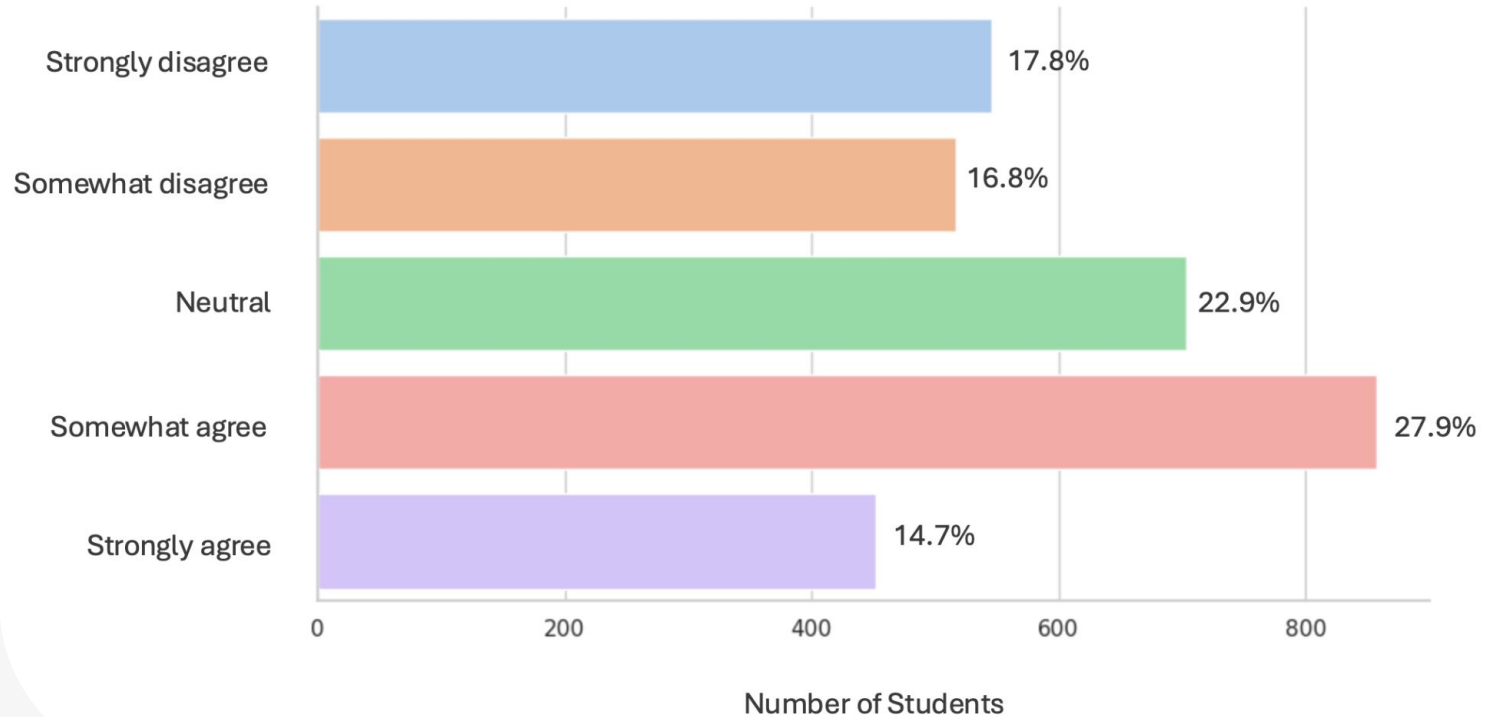I am comfortable with AI being used in the grading of my work.
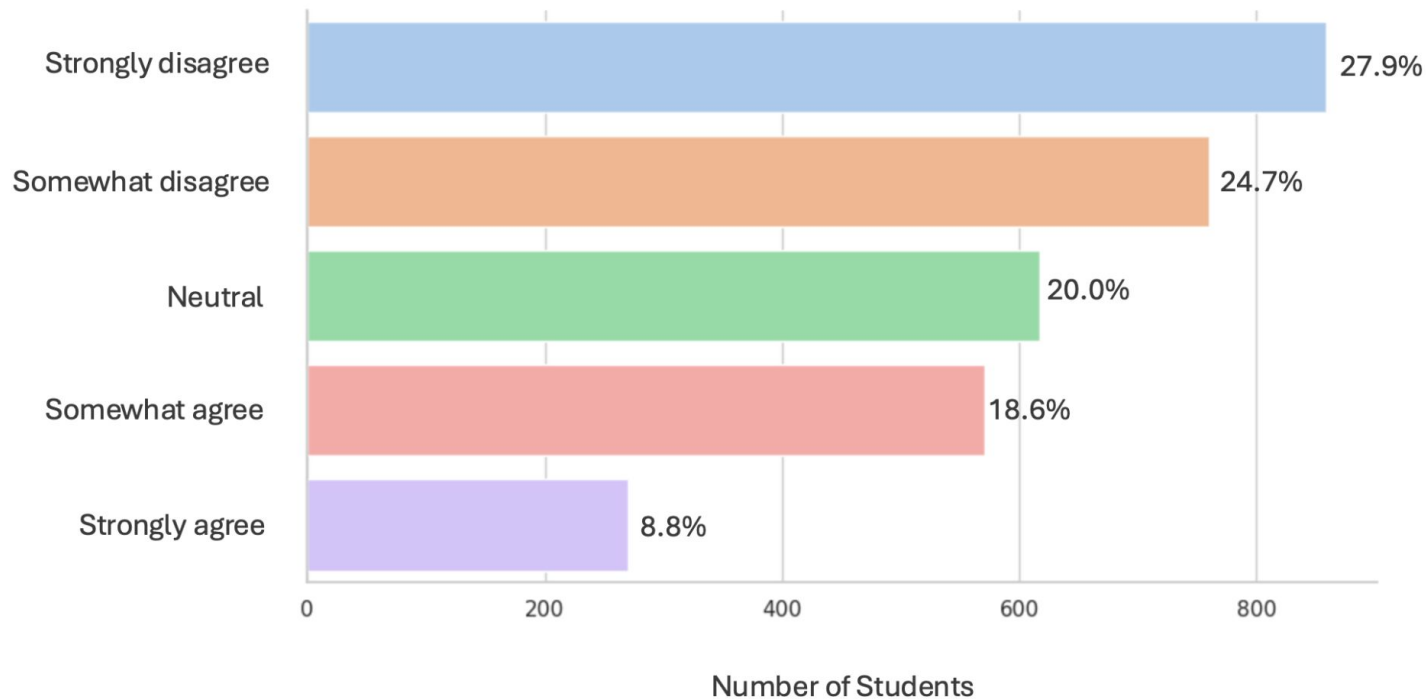
Interview Excerpts

"I think there's a lot of variability in it. So, if you're grading a sheet where it's multiple choice, go for it. And then, maybe giving some corrections of, 'You were probably thinking this, it's actually this,' to give those sort of personalized corrections. I think that's one thing. I think to grade written pieces, I think that's unethical, because it kind of goes back to, if one person is putting forth their time and effort, then there's an expectation that the other person is meeting that. Because then, at that point, it's like, 'Well why are you here, if you're choosing to have a computer make all these things for you?' If I'm writing this paper myself, and then you're choosing to have a computer grade it, I could turn that in to any computer and ask them to grade it, but I'm asking you, as someone with a PhD in this, as somebody who's studied this, what your thoughts are."

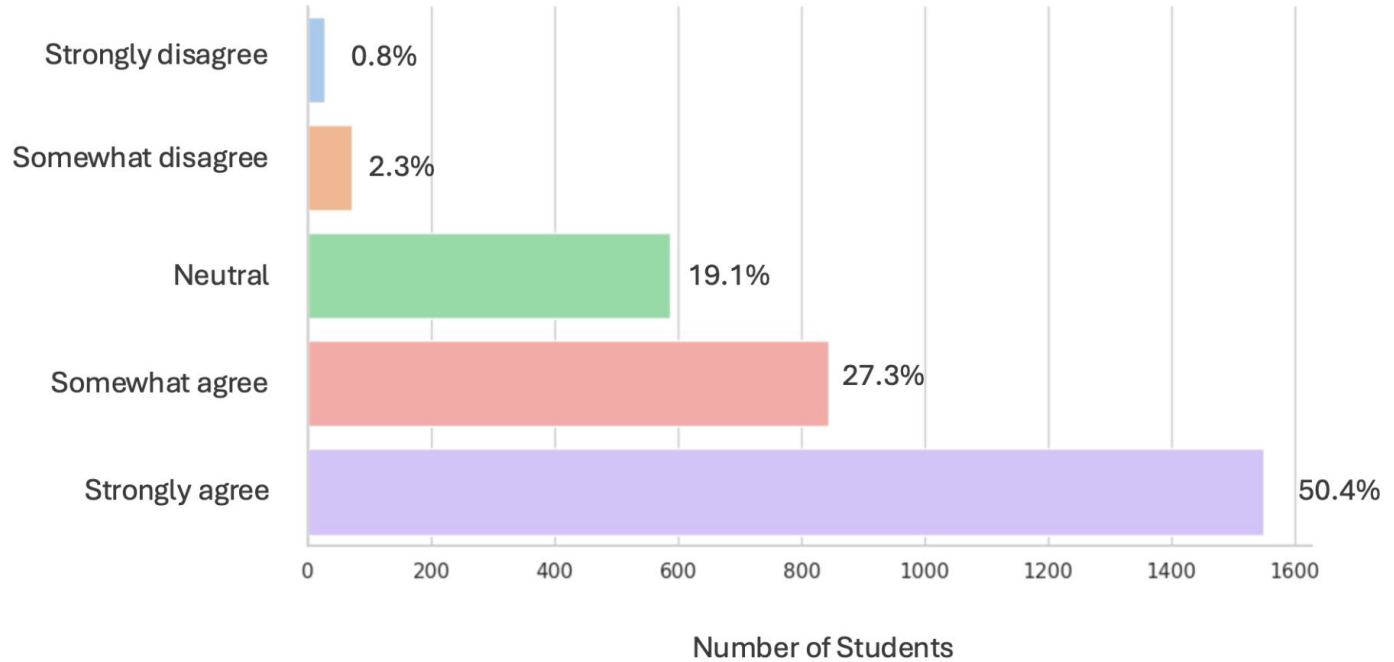I am comfortable with AI detectors being used.
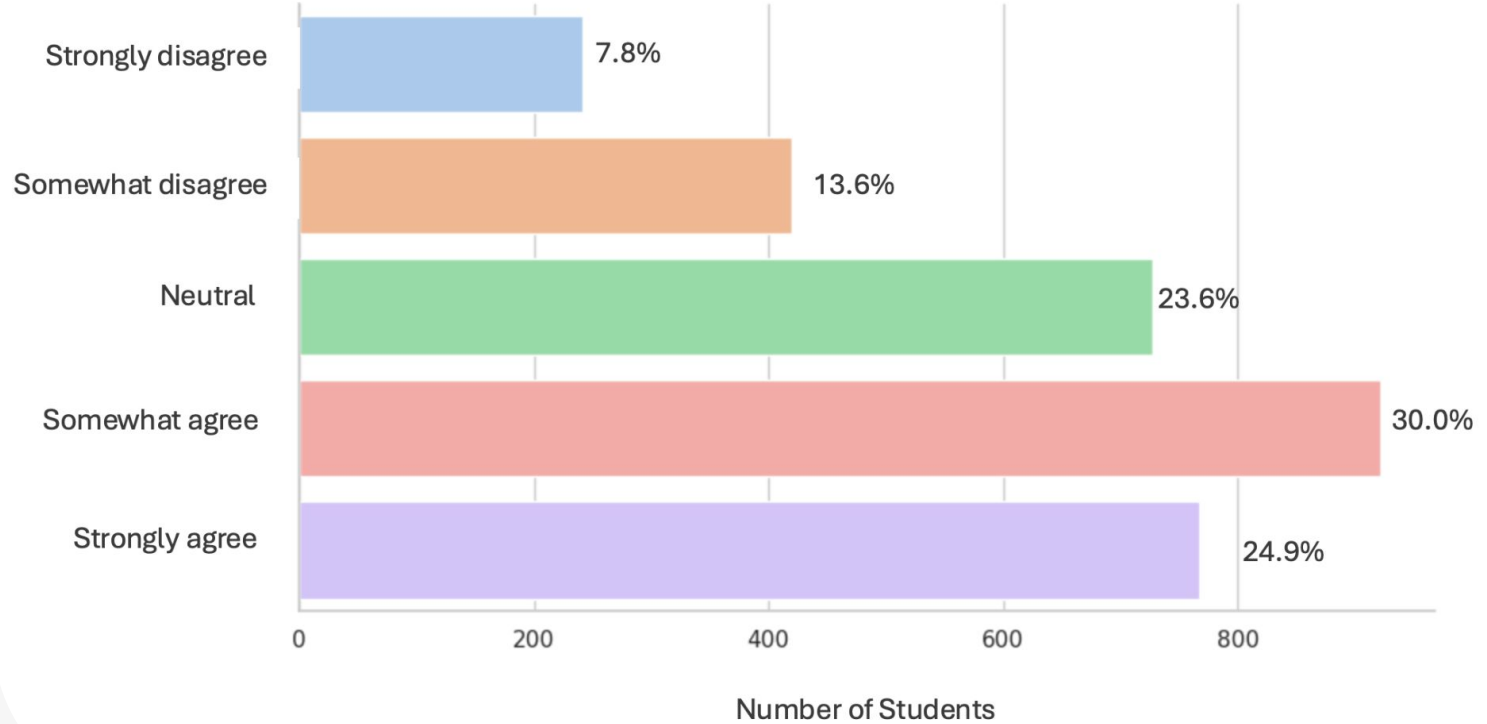
I am comfortable with my professor using AI to design course materials.

I want my professors to disclose their AI use.

- Strongly disagree — 0.8%
- Somewhat disagree — 2.3%
- Neutral — 19.1%
- Somewhat agree — 27.3%
- Strongly agree — 50.4%

Number of Students

Interview Excerpts

One

"On one hand, I think it's important. On the other hand, I think it might invite more unwanted attention. In the same way where if you're just using AI in the same way you would use a Grammarly function, you're not telling people, 'Oh, I'm using Grammarly.' So why would you need to disclose why are you using AI? Just because if the professor says, I use this, even if they explain, 'I used it in these specific ways only, this was the expectation with it, this was how I crafted it', students have a terrible habit of not paying attention or selective hearing that I think they would see, 'Oh, they used AI,' and take that as blanket permission to do literally whatever they wanted. I think that invites a very slippery slope, so I think I would kind of leave it in the, if you're only using it in like Grammarly type context, if you're just using it to refine and polish and change up a couple things so it's clear, that you wouldn't need to disclose it. Because then you'd be using it as a tool not as a foundational piece."

58

Interview Excerpts

(Discussing instructor who used AI to write his syllabus and instructor disclosed that it was AI written in the first line of syllabus.)

"I definitely think that, as long as they're upfront about it, and they're more willing to understand you use of AI, that it's absolutely okay. I think it would bother me if they were anti AI but did the same thing or it came out later that they had used AI without disclaiming it upfront. But, in that usage it didn't bother me at all."

Student Concerns

Frequently Mentioned:

1. Concerns over being flagged/AI detectors

2. Not enough integration of AI

3. Feeling policies are unclear

4. Concerns about instructor use/grading

5. Students missing out on their own education

6. Ethical concerns

Questions?

Implications for Teaching & Learning

1. What concerns do you have after viewing our initial results?

2. How do the results align (or not align) with your personal experiences?

3. What new perspectives did you gain from this presentation?

4. How do the results challenge your beliefs or assumptions?

5. What data points are most interesting or surprising to you - why?

6. What are implications of this data for your classroom practice?

Thank you!

Contact us: Ameenah.Razi@colorado.edu

August.Milliken@colorado.edu

Ellen.Kedzierski@colorado.edu

Rebecca.Lee@colorado.edu

Jacie.Moriyama@colorado.edu

Complete AI Tool Breakdown

Which AI-powered tools do you use? Please choose all that apply. 3,475 ⓘ