

Higher Education and AI

Survey Findings





Introduction

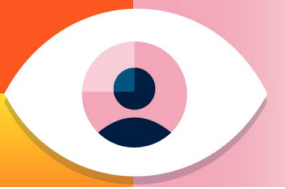
This report presents the findings of 2 surveys undertaken by Oxford University Press (OUP) in June 2024; one with undergraduate students, and one with those teaching undergraduate students.

The surveys set out to understand the variance in perceptions and use of AI across those studying or working in Higher Education, and to help inform work with AI in the context of Higher Education.

The survey questions covered current behaviours and attitudes towards AI, as well as beginning to look to the future role AI might play in Higher Education. Overall, there were 674 usable responses from students and 841 usable responses from lecturers of undergraduate students. These formed the samples for analyses.

The research findings in this report are designed to contribute to the discussion of how AI might fit into the HE sector.

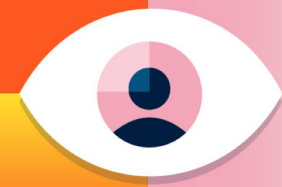




Summary of findings

Overall:

- Just over a quarter (26%) of responding lecturers report having a good understanding of AI tools used for teaching. Students are very slightly less likely to report that they have a good understanding of AI tools (22%).
- Around 80% of lecturers have used AI to support their teaching, with anti-plagiarism software and AI chatbots being the most popular AI tools to use. However, more students have used AI to support their learning (94%), with AI chatbots also being most popular, followed by writing assistants.
- Despite students' higher likelihood to have used AI tools, lecturers are more likely than students to have attended training that their institution offers.
- In response to an open question asking what respondents were most excited about in relation to AI use in teaching and learning, lecturers typically expressed a general curiosity about what AI could do, highlighted its support with new ideas, and its support with productivity or admin tasks. Students similarly wrote about how AI will generally help with learning, and help in a more general sense, as well as how it can support with specific tasks.
- On the flip side, when respondents commented on what they were most concerned about, lecturers focused on AI limiting skills required for teaching and learning, they mentioned the threat or challenge to education more generally, and concerns around AI being misused. Students' concerns were different – they focused on cheating/plagiarism, concern around an over-reliance on AI, and AI models not being good enough at present.



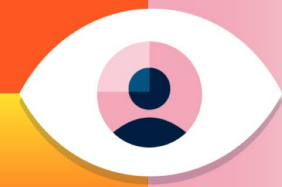
Lecturers: Overall, 62% are concerned about the impact that AI could have on higher education

Agree - strongly agree with each statement	%
I think it's important to fully assess the implications of using AI before using it in my teaching	69%
I am concerned about the impact that AI could have on higher education*	62%
I think that students who use AI will fail to develop the skills required to succeed in academia*	46%
In general, I think that higher education institutions should allow lecturers / professors to use AI	35%
Allowing students to use AI will have a negative impact on them*	35%
Those not using AI will be left behind	31%
AI will revolutionise how teaching in higher education is conducted	30%
I enjoy experimenting with AI to see how it could benefit my teaching	30%
Using AI tools will change how I teach	30%
Overall, I have benefitted from using AI in my teaching**	29%
I think AI poses a threat to my role as a teacher*	27%
I think using AI would have a negative effect on the quality of my teaching*	24%

Agree - strongly agree with each statement	%
In general, I think AI could support my students' learning	23%
I think using AI will have a negative impact on the trust students have in my teaching*	22%
I am excited about the prospects of AI for higher education	21%
I encourage my students to experiment with using AI	21%
I encourage my colleagues to try using AI to support their teaching	21%
I think using AI will make the whole teaching process more efficient	16%
I would like more AI tools implemented in services from organizations	15%
Nowadays, AI is an essential part of teaching	15%
I think AI companies have created tools that effectively support teaching in higher education	13%
I know how to use AI effectively in my teaching	12%
Overall, AI will not change the world that much*	5%
I trust AI companies not to use my data without permission	3%
I trust that my students will use AI ethically	3%

* Asterisk indicates negatively phrased statements, where a 'disagreement' implies a positive attitude towards AI

** Double asterisk indicates statement only asked to a subset of respondents i.e. those who had used AI in their research



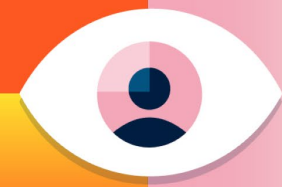
Students: Overall, 44% believe AI will revolutionise how people learn, and that it will make learning more efficient

Agree - strongly agree with each statement	%
I think it's important to fully assess the outputs from AI before using them	58%
Overall, I have benefitted from using AI in my learning**	51%
I enjoy experimenting with AI to see how it could benefit me	48%
AI will revolutionise how people learn	44%
I think using AI will make my learning more efficient	44%
I think that higher education institutions should offer general courses on AI	41%
I am concerned about the impact that AI could have on my future job prospects*	40%
I think AI companies have created tools that effectively support students	39%
Using AI tools will change how I work as a student	39%
I trust my lecturers / professors to use AI responsibly	39%
I know how to use AI effectively in my learning	39%

Agree - strongly agree with each statement	%
Using AI to generate content for graded assessments is the same as cheating*	38%
I am excited about the prospects of AI	36%
In general, I think that higher education institutions should allow students to use AI	35%
I would like more AI tools implemented in services from organizations	34%
I think using AI will have a negative impact on the trust my lecturers / professors have in my work*	30%
I encourage my peers to try using AI	29%
I would be comfortable receiving written feedback about my work from AI	26%
Those not using AI will be left behind	24%
I think AI will devalue the need for a university education in the future*	22%
I trust AI companies not to use my data without permission	17%
Overall, AI will not change the world that much*	8%

* Asterisk indicates negatively phrased statements, where a 'disagreement' implies a positive attitude towards AI

** Double asterisk indicates statement only asked to a subset of respondents i.e. those who had used AI in their research



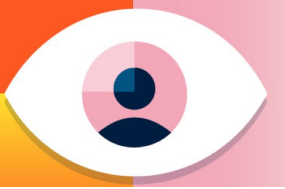
In general, students are more positive about AI than their lecturers

Agree – strongly agree with each statement	Teaching	Students
I think it's important to fully assess the implications / outputs of using AI before using it in my teaching / using them	69%	58%
Overall, I have benefitted from using AI in my teaching / learning**	29%	51%
I enjoy experimenting with AI to see how it could benefit my teaching / me	30%	48%
Using AI tools will change how I teach / work as a student	30%	39%
I think AI companies have created tools that effectively support teaching in higher education / students	13%	39%
I know how to use AI effectively in my teaching / learning	12%	39%
In general, I think that higher education institutions should allow lecturers / professors / students to use AI	35%	35%
I would like more AI tools implemented in services from organizations	15%	34%
I encourage my colleagues / peers to try using AI (to support their teaching)	21%	29%
Those not using AI will be left behind	31%	24%
I trust AI companies not to use my data without permission	3%	17%
Overall, AI will not change the world that much*	5%	8%

Differences of 10 percentage points or more highlighted in green. However, please note that as the samples are not directly comparable, any differences should be treated as indicative only.

** Asterisk indicates negatively phrased statements, where a 'disagreement' implies a positive attitude towards AI*

*** Double asterisk indicates statement only asked to a subset of respondents i.e. those who had used AI in their research*



Methodology and sample

The study was run as an online survey including a mixture of quantitative and qualitative questions. To make sure the survey questions were meaningful, an initial draft was piloted with cognitive interviews on a small sample of students and lecturers. During these interviews, they clarified their understanding of the questions and identified any areas of ambiguity. Subsequent revisions were made based on the interview outcomes before launching the survey.

The anonymous survey ran in June 2024 and data analysis excluded responses that did not go beyond initial questions or that provided formulaic answers.

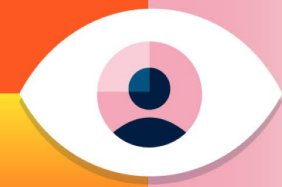
Respondents' attitudes towards AI were captured via 24 psychometric (attitudinal) questions for lecturers, and 21 for students, each split into 4 sets. Based on their responses to these attitudinal questions, respondents were grouped into segments using the k-means cluster analysis. These groups consist of people who are similar to each other in their perceptions, but different to those in the other groups. Respondents to both surveys were predominantly from the UK, US and Canada.

Finally, we ran frequencies and crosstab analysis for each cluster to understand and describe the groupings better. On all but two statements, differences between clusters were statistically significant at $p < .001^*$. Demographic questions were used to better describe the groups.

**The only exceptions are Student responses to the statements "Overall, AI will not change the world that much" which resulted in a p-value of $p = .098$ and "I think AI will devalue the need for a university education in the future" which resulted in a p-value of $p = .801$*

Teaching

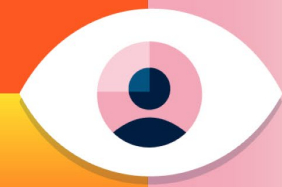




Teaching Profiles

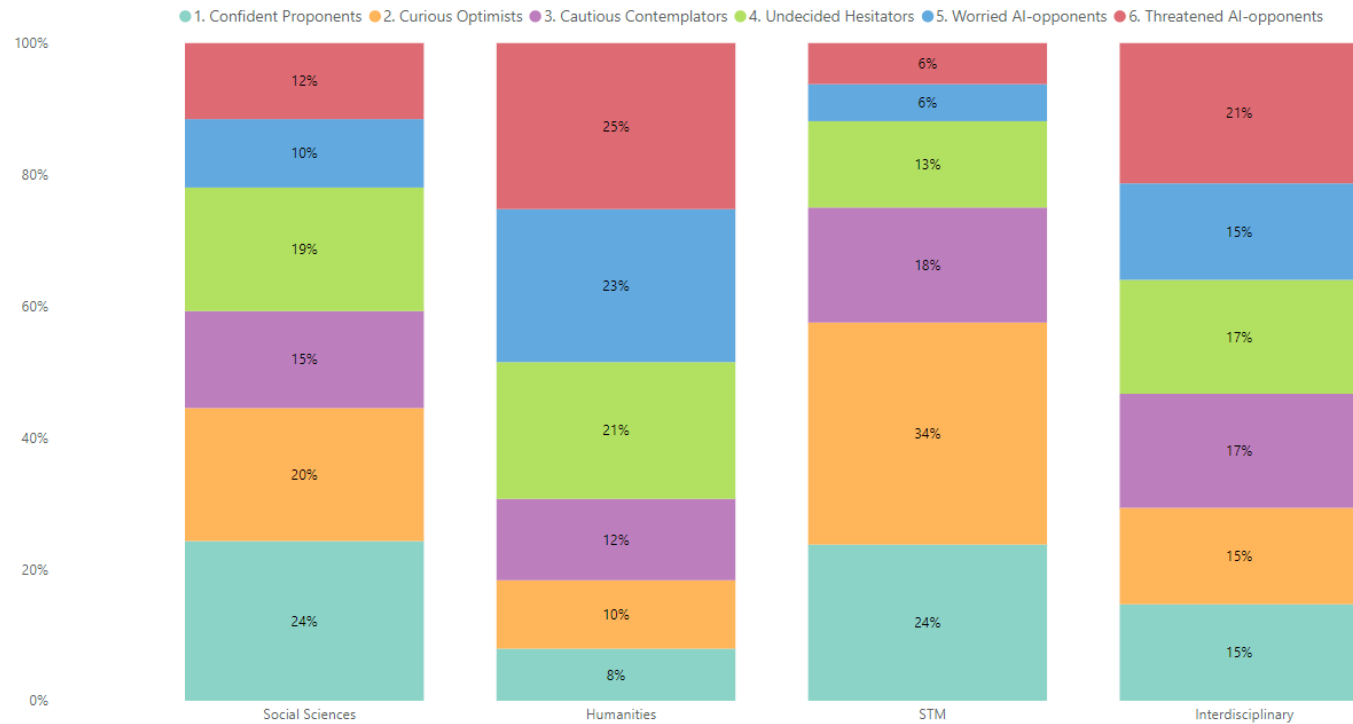
- A statistical cluster analysis identified 6 groups that illustrate the differences between lecturers in terms of their attitudes towards and perceptions of AI. The profiles illustrate the spectrum of attitudes, from 'Confident Proponents' (those totally embracing AI) to 'Threatened AI-opponents' (those who want nothing to do with AI and want it kept away from Higher Education).
- Within the survey sample, there is a larger proportion of 'Confident Proponents' in Social Sciences, 'Threatened AI-opponents' in Humanities and Interdisciplinary, and 'Curious Optimists' in STM.
- Lecturers who are based at institutions that they claim allow the use of AI are more likely to be 'Confident Proponents' whereas those based at institutions that generally discourage the use of AI are more likely to be 'Undecided Hesitators'.

Cluster	Description	N=
Confident Proponents	<i>"I enjoy using AI & seeing its positive impact"</i>	149
Curious Optimists	<i>"I'm keen to see how AI can support me"</i>	156
Cautious Contemplators	<i>"AI might help me, but not my students"</i>	117
Undecided Hesitators	<i>"AI might help me, but not my students"</i>	141
Worried AI-opponents	<i>"I'm concerned about how AI might impact me"</i>	103
Threatened AI-opponents	<i>"Keep AI away from me and education"</i>	117



STM has the largest proportion of ‘Curious Optimists’ whereas Humanities has the largest proportion of ‘Threatened AI-opponents’

% of each teaching profile per discipline



Social Sciences falls between STM and Humanities and the Interdisciplinary group is fairly evenly split across the 6 profiles.

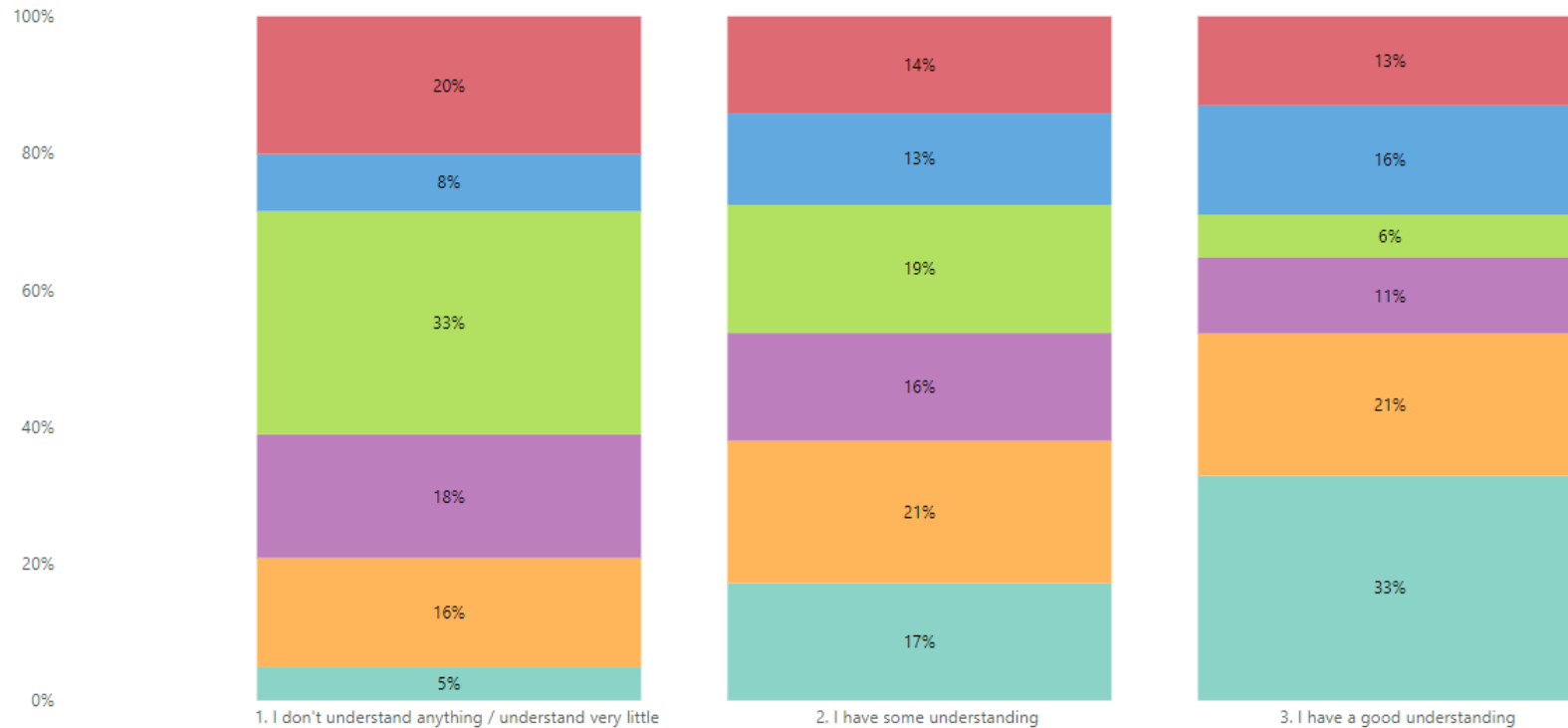
N: Total: 667; Social Sciences: 346, Humanities: 202, STM: 160, Interdisciplinary: 75



Those who report having a good understanding of AI tools include a greater proportion of ‘Confident Proponents’

% of each teaching profile per understanding of AI tools

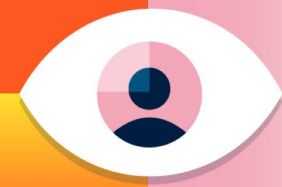
1. Confident Proponents 2. Curious Optimists 3. Cautious Contemplators 4. Undecided Hesitators 5. Worried AI-opponents 6. Threatened AI-opponents



Whereas those who report having little or no understanding of AI tools have the largest proportion of ‘Undecided Hesitators’.

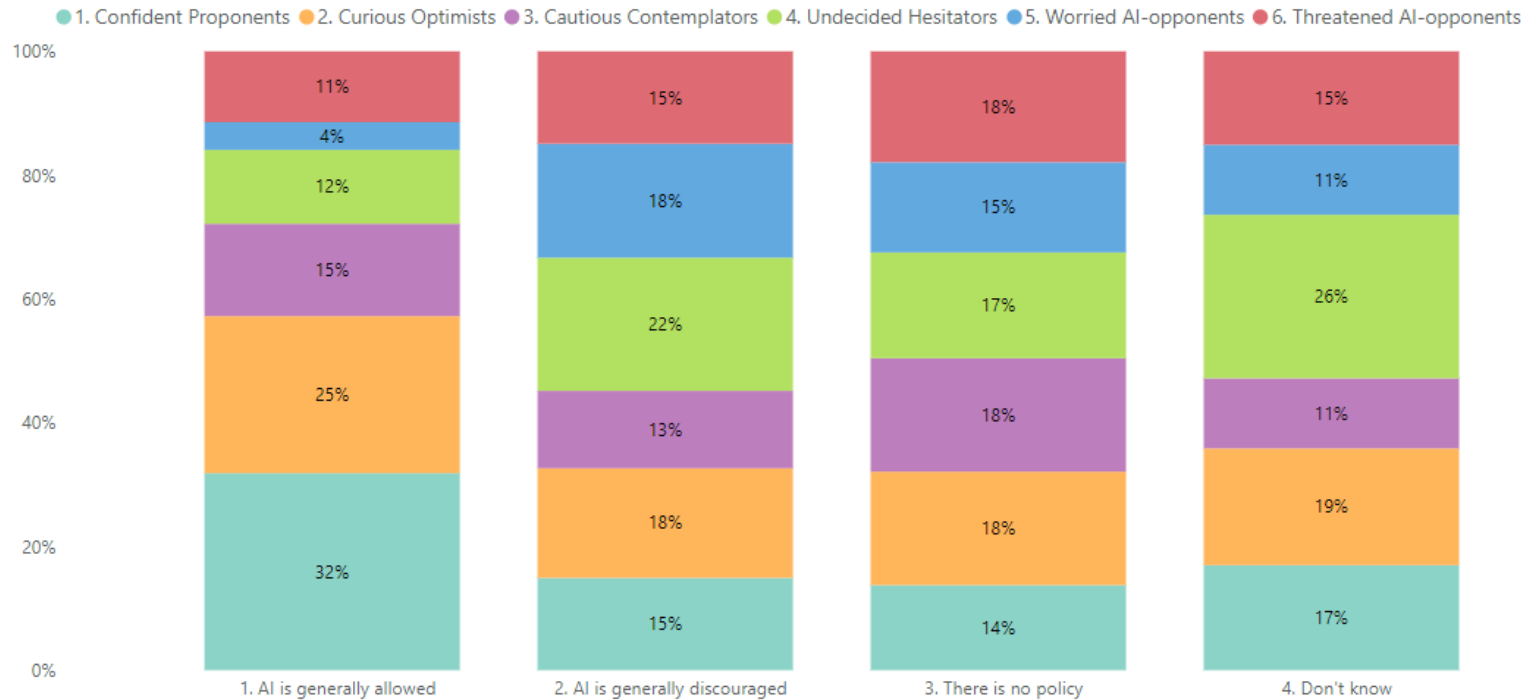
Overall, 26% report that they have a good understanding, with a further 55% claiming to have some understanding of AI tools used for teaching.

N: Total: 783; Don't understand anything / very little: 144, Some understanding: 432, Good understanding: 207



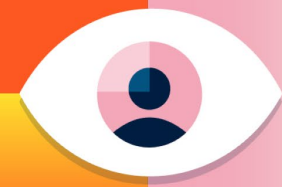
Lecturers working in institutions that generally allow the use of AI are most likely to be ‘Confident Proponents’

% of each teaching profile per institutional policy on AI tools



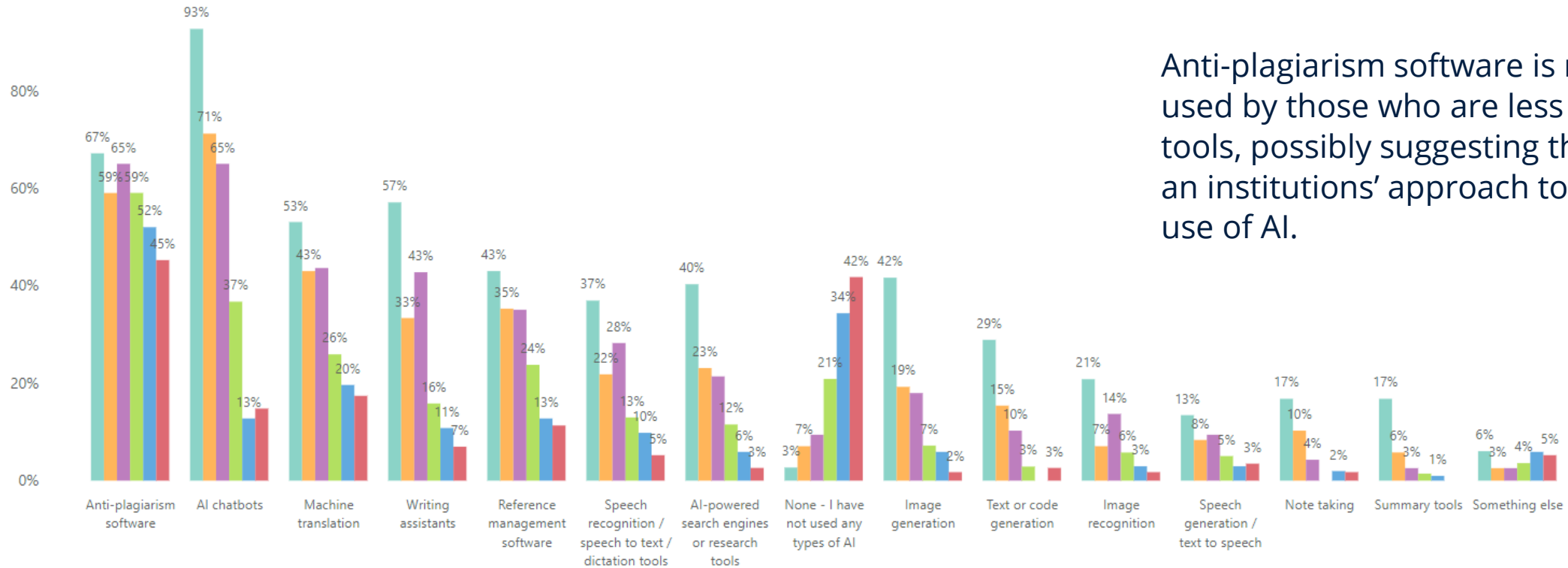
Lecturers working in institutions where AI is generally discouraged have the largest proportion of ‘Worried AI-opponents’.

N: Total: 782; Allowed: 201, Discouraged: 288, No policy: 240, Don't know: 53



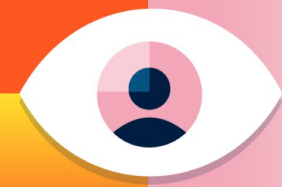
Overall, around 80% have used AI tools – those who are more positive towards AI are more likely to use each type of AI tool

● 1. Confident Proponents ● 2. Curious Optimists ● 3. Cautious Contemplators ● 4. Undecided Hesitators ● 5. Worried AI-opponents ● 6. Threatened AI-opponents



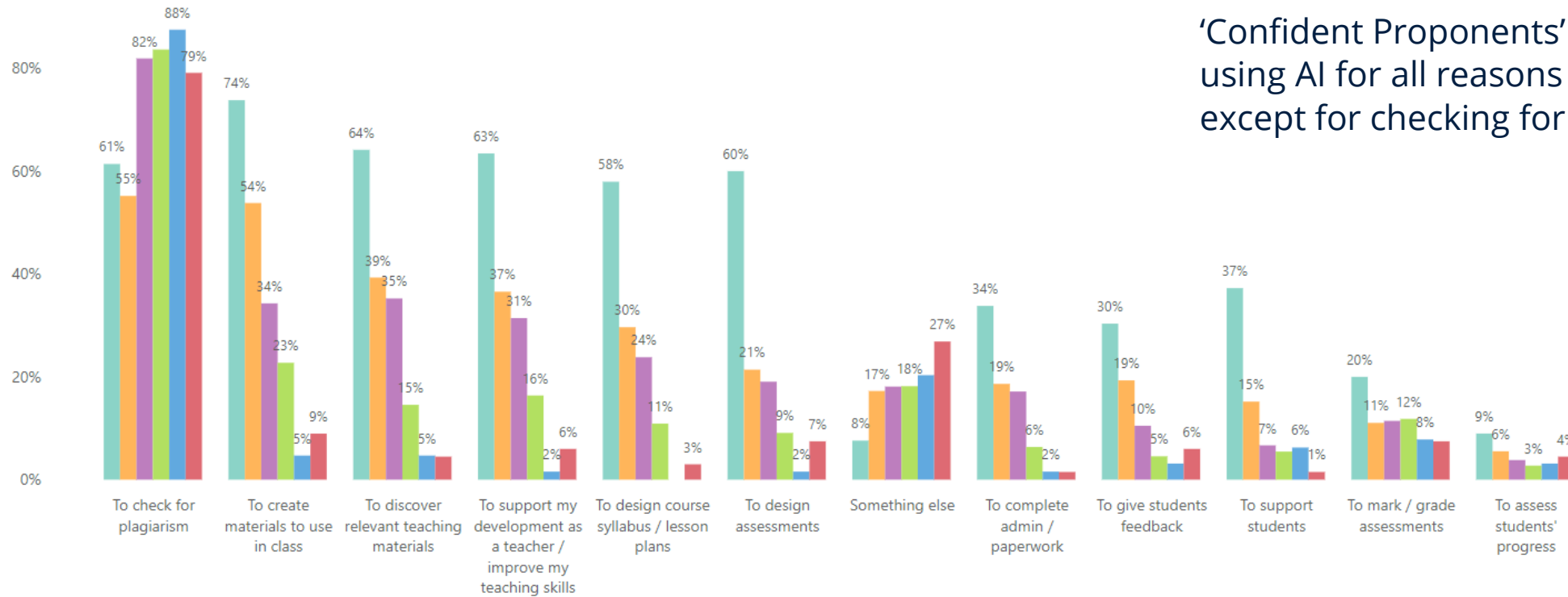
Anti-plagiarism software is most likely to be used by those who are less positive about AI tools, possibly suggesting that this is part of an institutions' approach to combating the use of AI.

Q: What types of AI have you used at any stage to support your teaching?



'Worried AI-opponents' are most likely to be using AI to check for plagiarism

● 1. Confident Proponents ● 2. Curious Optimists ● 3. Cautious Contemplators ● 4. Undecided Hesitators ● 5. Worried AI-opponents ● 6. Threatened AI-opponents

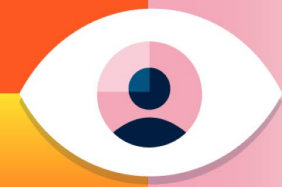


'Confident Proponents' are more likely to be using AI for all reasons than all other groups, except for checking for plagiarism.

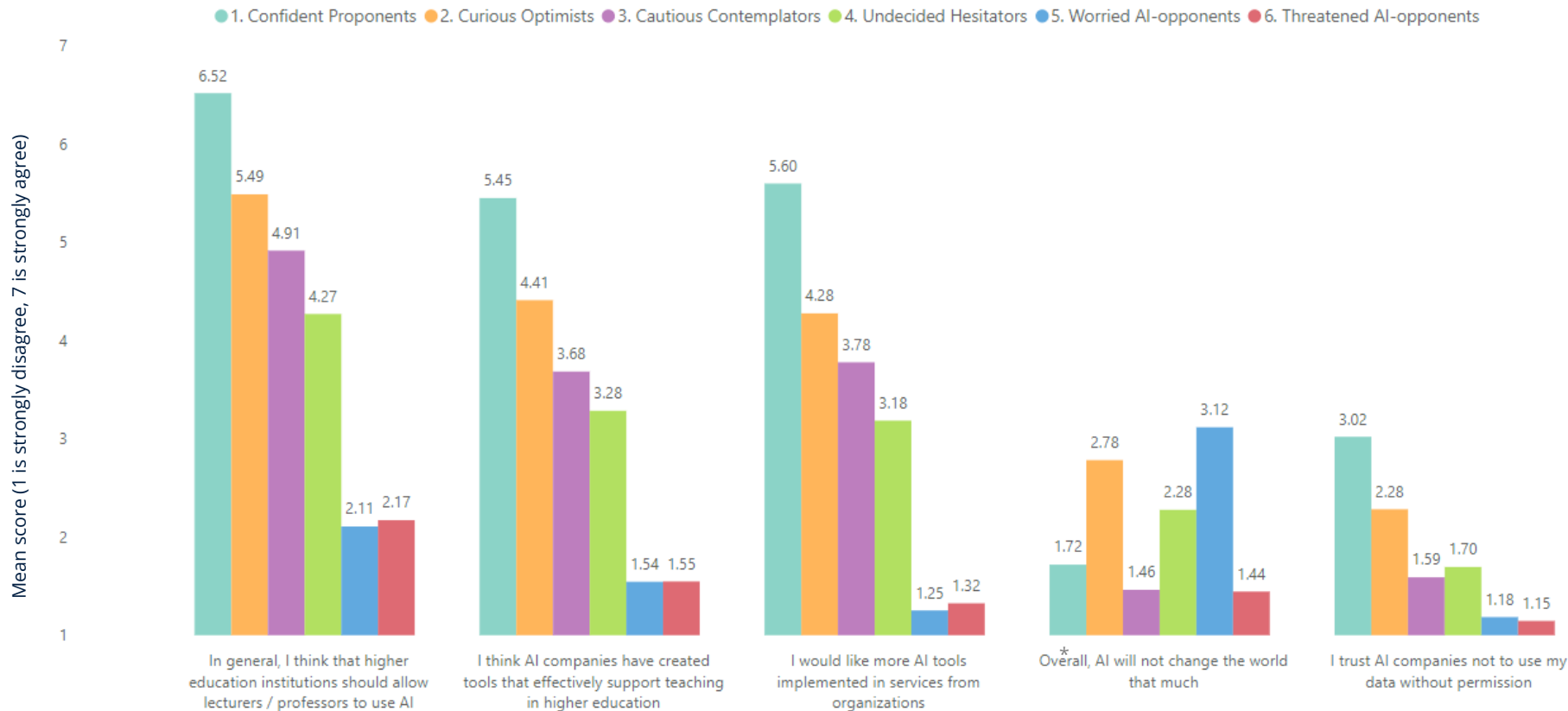
Q: What are the main reasons you have used AI for your teaching?

Lecturer attitudes to AI



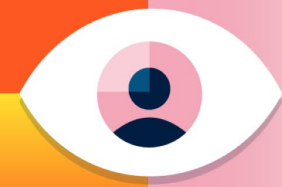


Trust in AI companies is fairly low across the board, but more so for ‘Worried AI-opponents’ and ‘Threatened AI-opponents’



Q: Thinking about AI in general, to what extent do you agree or disagree with each of these statements?

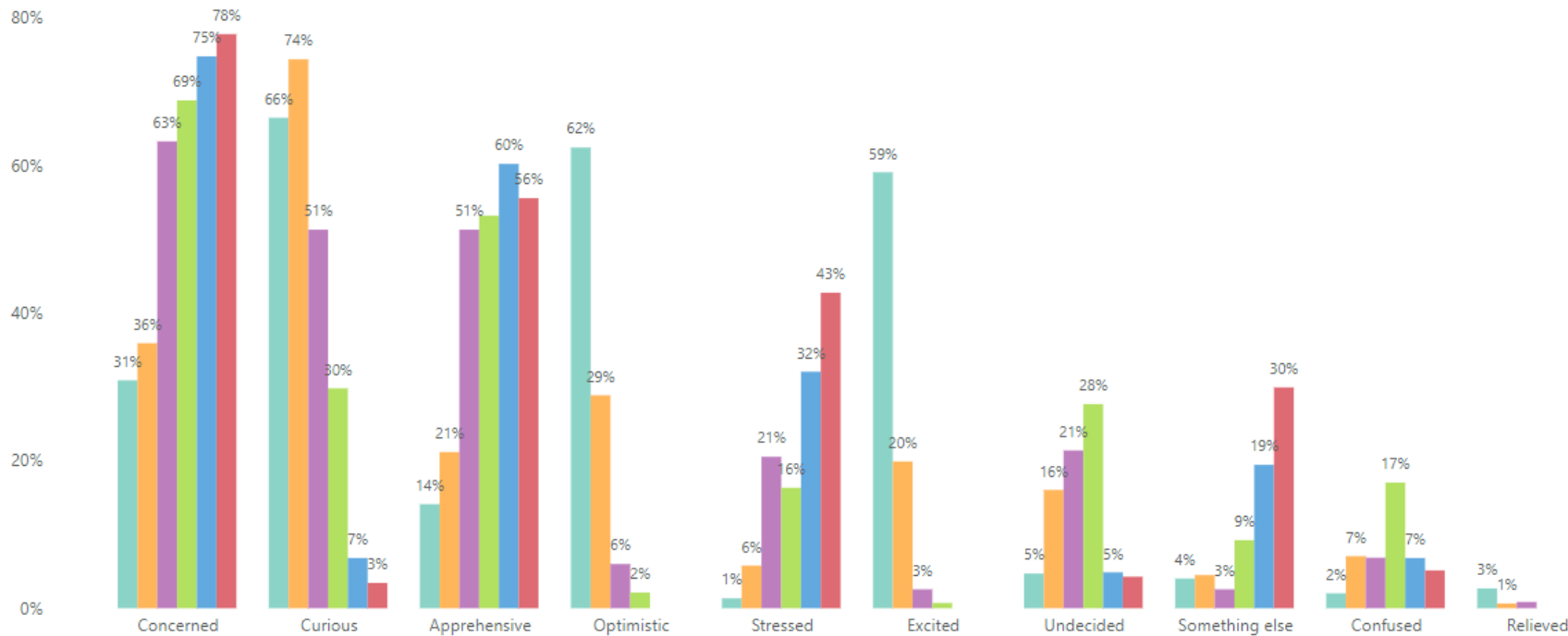
* Asterisk indicates negatively phrased statements, where a ‘disagreement’ implies a positive attitude towards AI



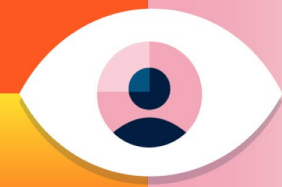
‘Worried AI-opponents’ and ‘Threatened AI-opponents’ do not report feeling any positive sentiments except curiosity

Sentiments felt towards how AI might be used in Higher Education

1. Confident Proponents 2. Curious Optimists 3. Cautious Contemplators 4. Undecided Hesitators 5. Worried AI-opponents 6. Threatened AI-opponents

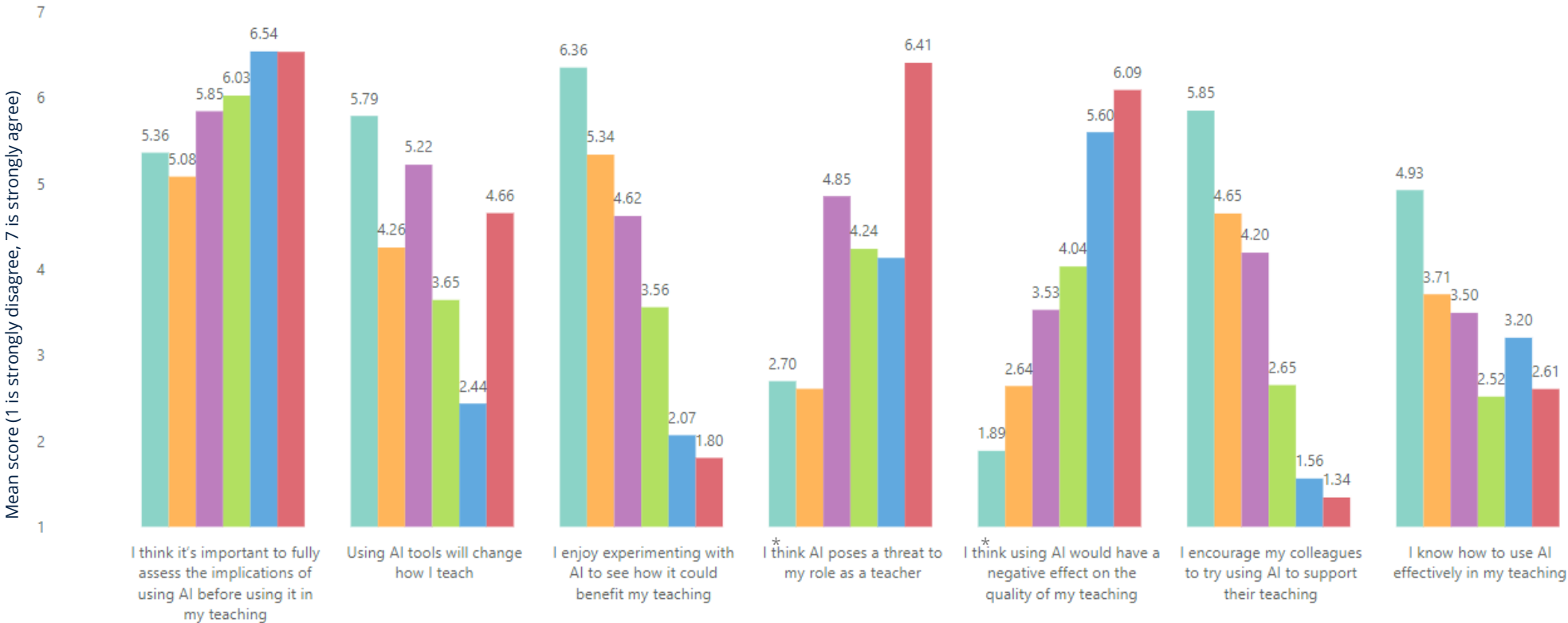


Even those who are more positive towards AI include a proportion who feel “concerned” about how AI might be used in higher education.



All groups feel it is important to fully assess the implications of AI before using in teaching, especially those more adverse to AI

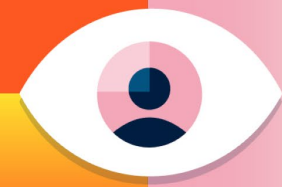
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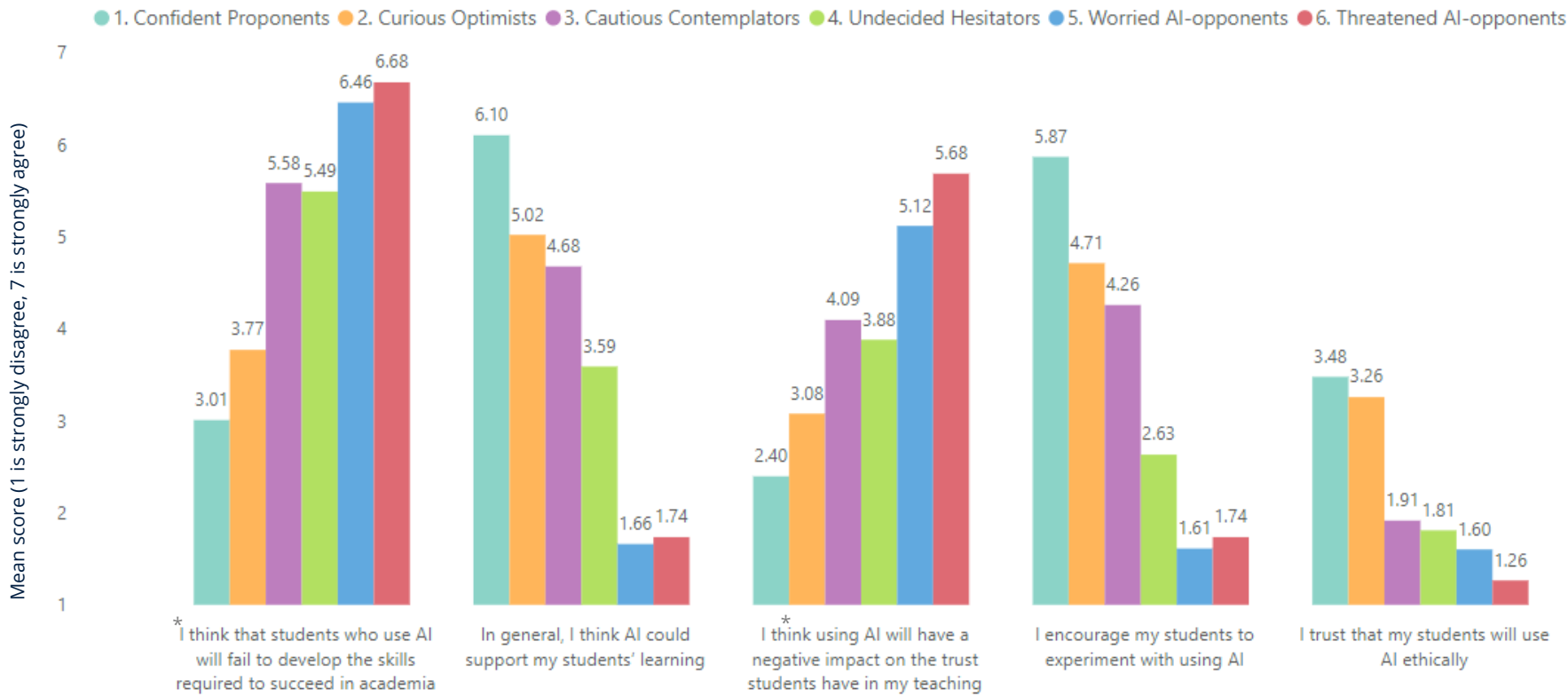
'Threatened AI-opponents' most strongly feel that AI poses a threat to their role as a teacher and think that using AI would have a negative effect on the quality of their teaching.

* Asterisk indicates negatively phrased statements, where a 'disagreement' implies a positive attitude towards AI

Q: Thinking about your own teaching, to what extent do you agree or disagree with each of these statements?



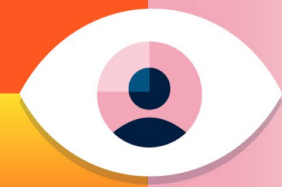
There is a large disparity amongst teaching groups about whether AI could support students' learning



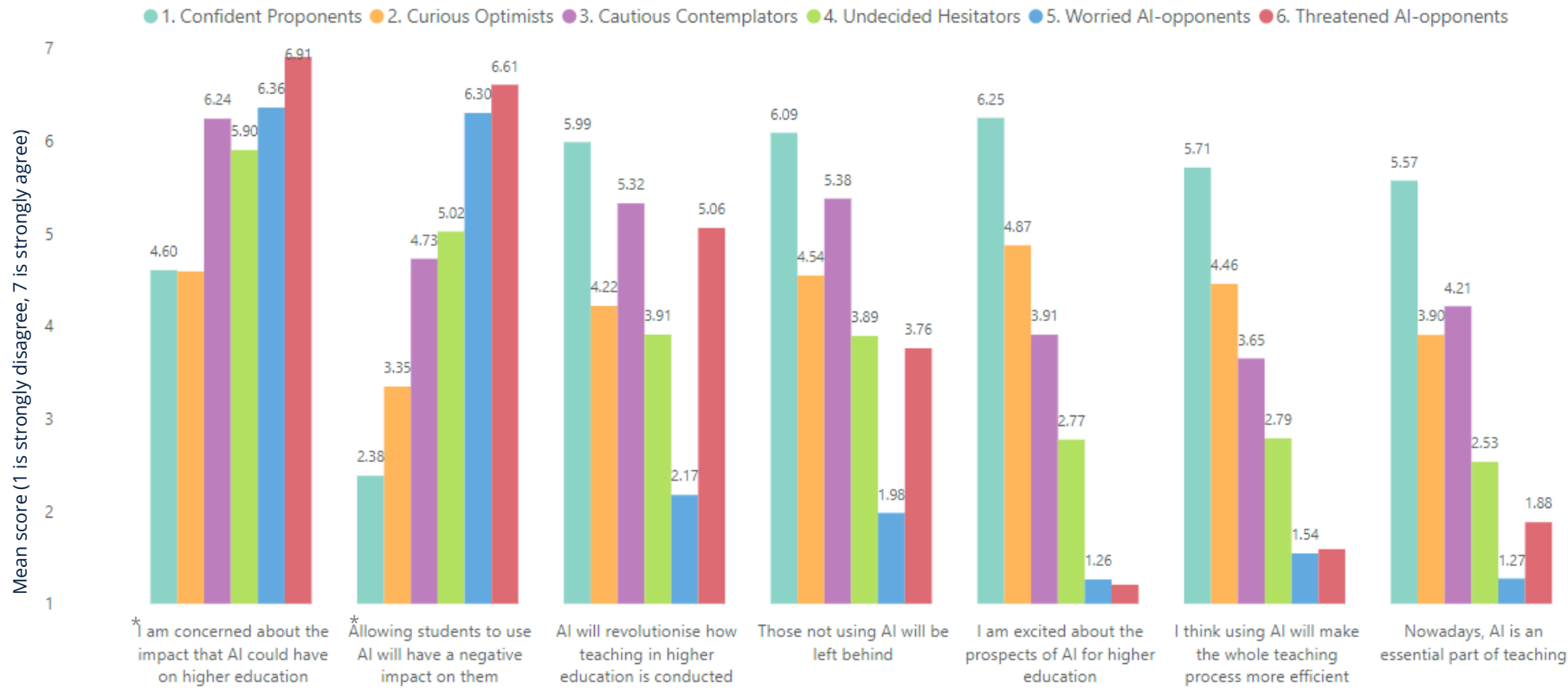
Despite encouraging their students to experiment with using AI, 'Confident Proponents' err on the side of caution on whether they trust their students to use AI ethically.

* Asterisk indicates negatively phrased statements, where a 'disagreement' implies a positive attitude towards AI

Q: Thinking about your students, to what extent do you agree or disagree with each of these statements?



In general, all groups are concerned, to varying degrees, about the impact that AI could have on higher education



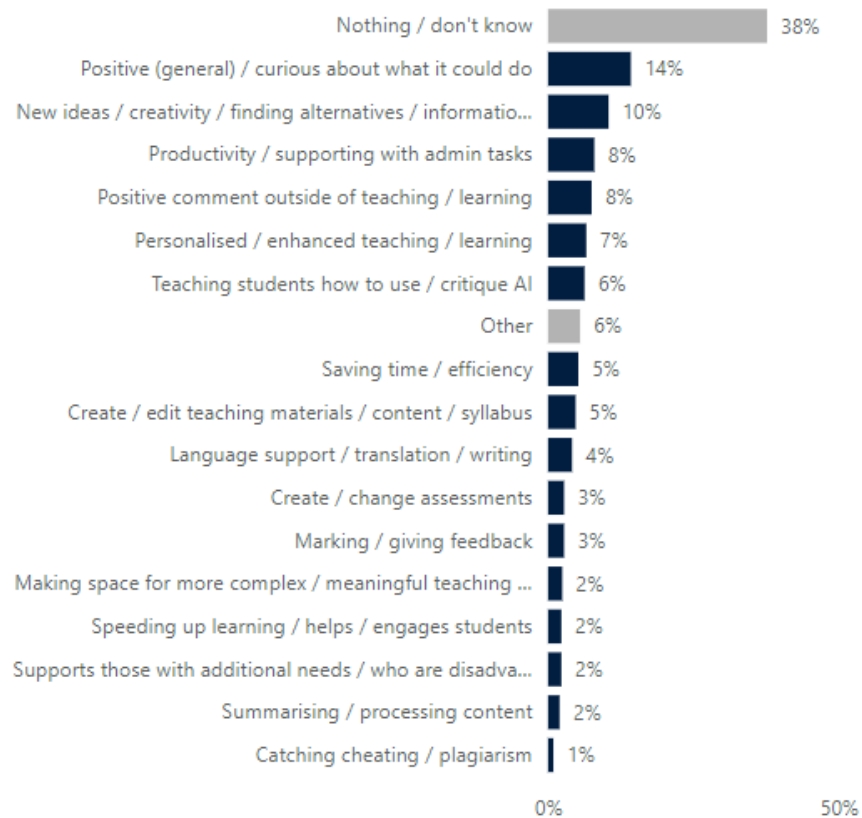
'Worried AI-opponents' are generally less likely to agree with statements about higher education overall than 'Threatened AI-opponents', despite being slightly warmer to AI overall.

* Asterisk indicates negatively phrased statements, where a 'disagreement' implies a positive attitude towards AI

Q: Thinking about higher education overall, to what extent do you agree or disagree with each of these statements?



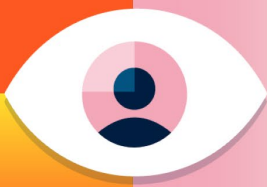
A wide range of answers are given when lecturers are asked what they are excited about in relation to AI in higher education



Overall, almost 2 in 5 say they are not excited about anything or they are unsure, with a further 14% giving a very generic 'excited about what it can do' answer.

Those giving answers more specific to higher education surround being excited about new ideas or creativity, productivity and being able to offer a more personalised or enhanced teaching and learning experience.

Lecturers were asked to write about what they are most excited about when it comes to AI in relation to teaching and learning. All open response comments were systematically coded into these themes.



Top 3 themes that lecturers are excited about when it comes to AI in relation to teaching and learning

Positive (general) / curious about what it could do
(N = 93)

"I really love pushing the edge of technology on my teaching. I feel as if the movement toward AI is validating my approach to pedagogical experimentation."

[Confident Proponent]

"I think it's another tool that has the potential to aid learning if designed properly with educational objectives aimed towards critical thinking."

[Curious Optimist]

"I am more optimistic about AI as a teaching tool as opposed to a student resource."

[Cautious Contemplator]

New ideas / creativity / finding alternatives
(N = 68)

"AI might relieve the drudgery of improving student writing. AI in the arts could be an amazing way to unlock creativity and democratize access to self-expression."

[Undecided Hesitator]

"Finding reliable information should be a possible outcome (whether it will be swamped by just wanting it "done" is another matter). Used carefully and as a starting point, it can help to pull together an article or grant proposal, or perhaps even an outline (but it is oh so very bland)."

[Threatened AI-opponent]

Productivity / supporting with admin tasks
(N = 52)

"Efficiency, automation, simplification of mundane laborious tasks."

[Confident Proponent]

"AI technology might help reduce time spent on administration, leaving more time for teaching."

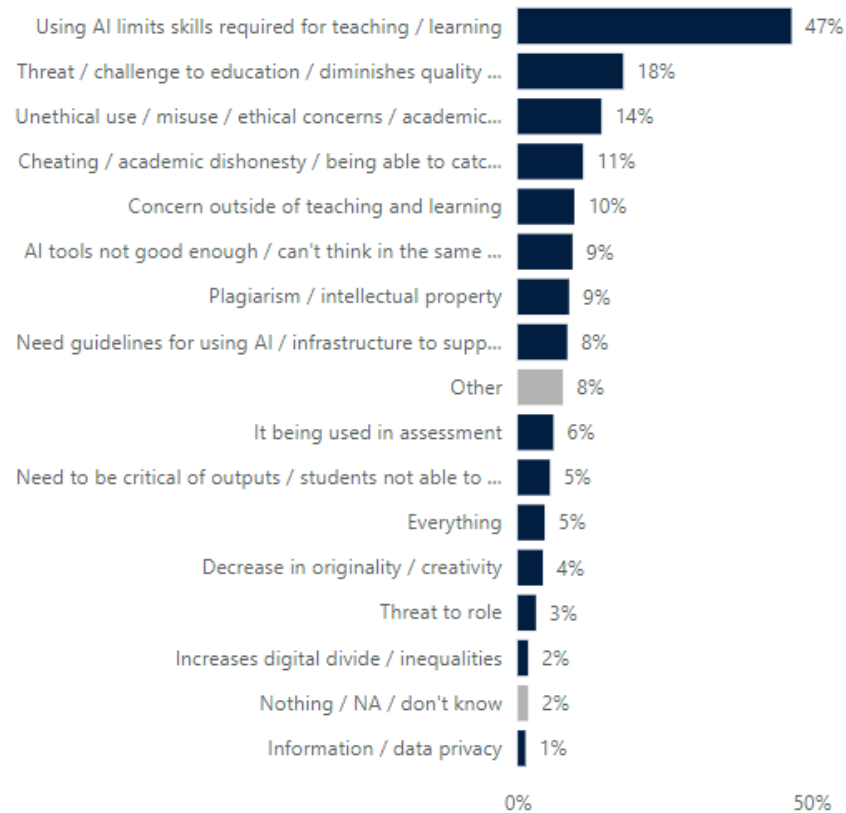
[Undecided Hesitator]

"Back-end software to make LMS capable of actually monitoring student progress. More efficient detection of AI-generated papers. What I'd really like is an AI that would compile and file academic misconduct reports for me, so that I could sanction and report cheaters at the touch of a button."

[Worried AI-opponent]



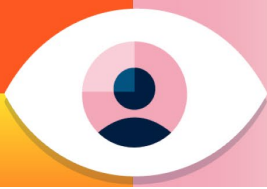
Of areas of concern raised, the belief that using AI limits the skills required for teaching and learning is mentioned by almost half



The second most mentioned theme is that AI is a threat or challenge to education, indicating that HE lecturers fairly strongly feel some concern for the future of education on the whole.

Unethical use of AI and cheating or academic dishonesty are mentioned by over 1 in 10, demonstrating that it is the malicious use of AI that is a key concern to our audience.

Lecturers were asked to write about what they are most concerned about when it comes to AI in relation to teaching and learning. All open response comments were systematically coded into these themes.



Top 3 themes that lecturers are concerned about when it comes to AI in relation to teaching and learning

Using AI limits skills required for teaching / learning
(N = 314)

"The de-skilling of students and their cognitive abilities. I am not sure where I will find the time to up-skill myself."
[Cautious Contemplator]

"The purpose of doing the hard work of writing, reading, proofreading, maths, etc., is not to have them done, but to learn from the process. Tools that allow students to bypass those processes are robbing them of learning, and they are not mature enough to realize what they've missed out on."
[Undecided Hesitator]

"The negative impact on skills, critical and independent thinking, and ethics."
[Worried AI-opponent]

Threat / challenge to education
(N = 121)

"Increased workload of checking that students are meeting their learning outcomes rather than using AI generated assignments."
[Confident Proponent]

"That education will just become AI papers graded by AI graders and none of it will be worthwhile."
[Worried AI-opponent]

"I fear that AI will lessen the quality of our degrees, esp. in the social sciences. People may adopt an attitude of 'I don't need to know how to think critically and communicate effectively, the AI will do that for me.'"
[Threatened AI-opponent]

Unethical use / misuse / ethical concerns
(N = 96)

"I am concerned with the abuse and misuse of AI to replace critical thinking processes."
[Curious Optimist]

"Misuse of AI for academic dishonest behaviours."
[Cautious Contemplator]

"Ethical issues concerning training models on protected work. The recycling of styles and ideas without further creative/intellectual input. Students using AI to complete assignments rather than to help them organize their thoughts."
[Undecided Hesitator]

Students





Student Profiles

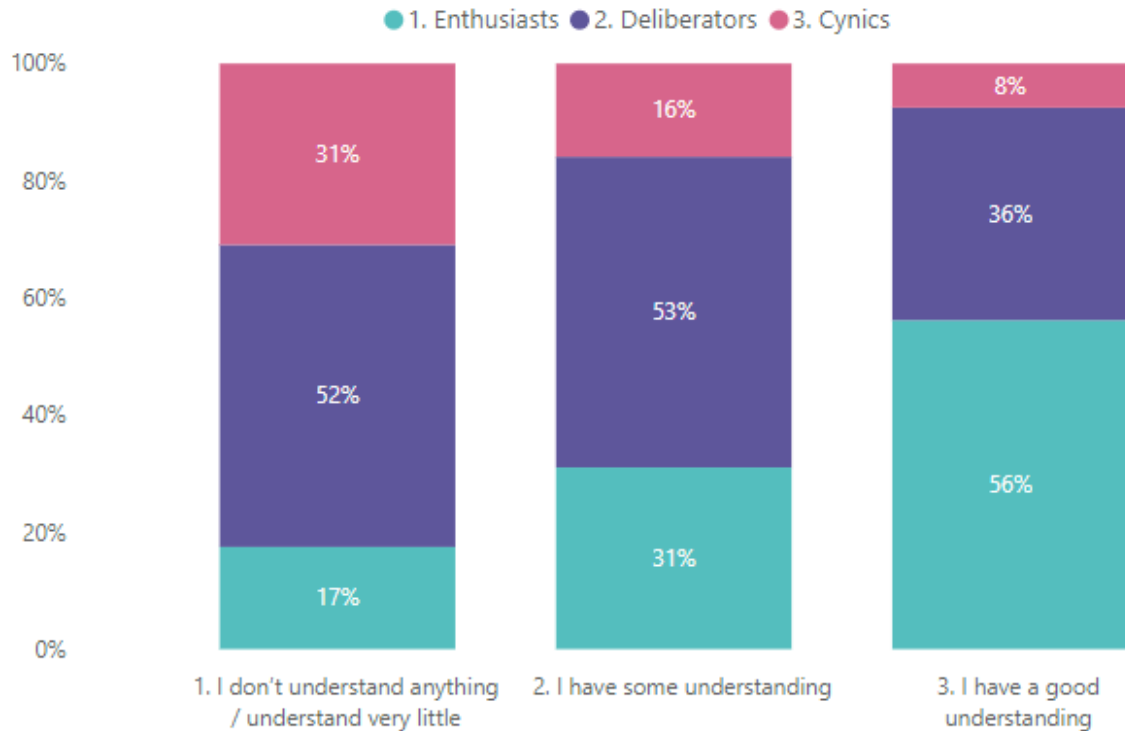
- A statistical cluster analysis identified 3 groups that illustrate the differences between students in terms of their attitudes towards and perceptions of AI.
- Comparatively, students' perceptions and attitudes are less nuanced than their lecturers – one hypothesis is that they are less invested in the impact of AI on HE in general, so there is less differentiation between them as a group overall.
- Within the sample, there is a larger proportion of 'Deliberators' overall, followed by 'Enthusiasts', then 'Cynics', indicating that at an overall level, students are warmer towards AI than their lecturers.
- Within the survey sample, those who report having a good understanding of AI are most likely to be 'Enthusiasts', whereas those with little or no understanding are most likely to be 'Cynics'.

Cluster	Description	N=
Enthusiasts	<i>"AI is going to be brilliant for supporting my education"</i>	222
Deliberators	<i>"I am curious about how AI can help me"</i>	324
Cynics	<i>"I am concerned about AI, both for my education and my future"</i>	119

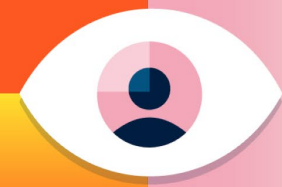


When there is a good understanding of AI, attitudes toward AI are more positive

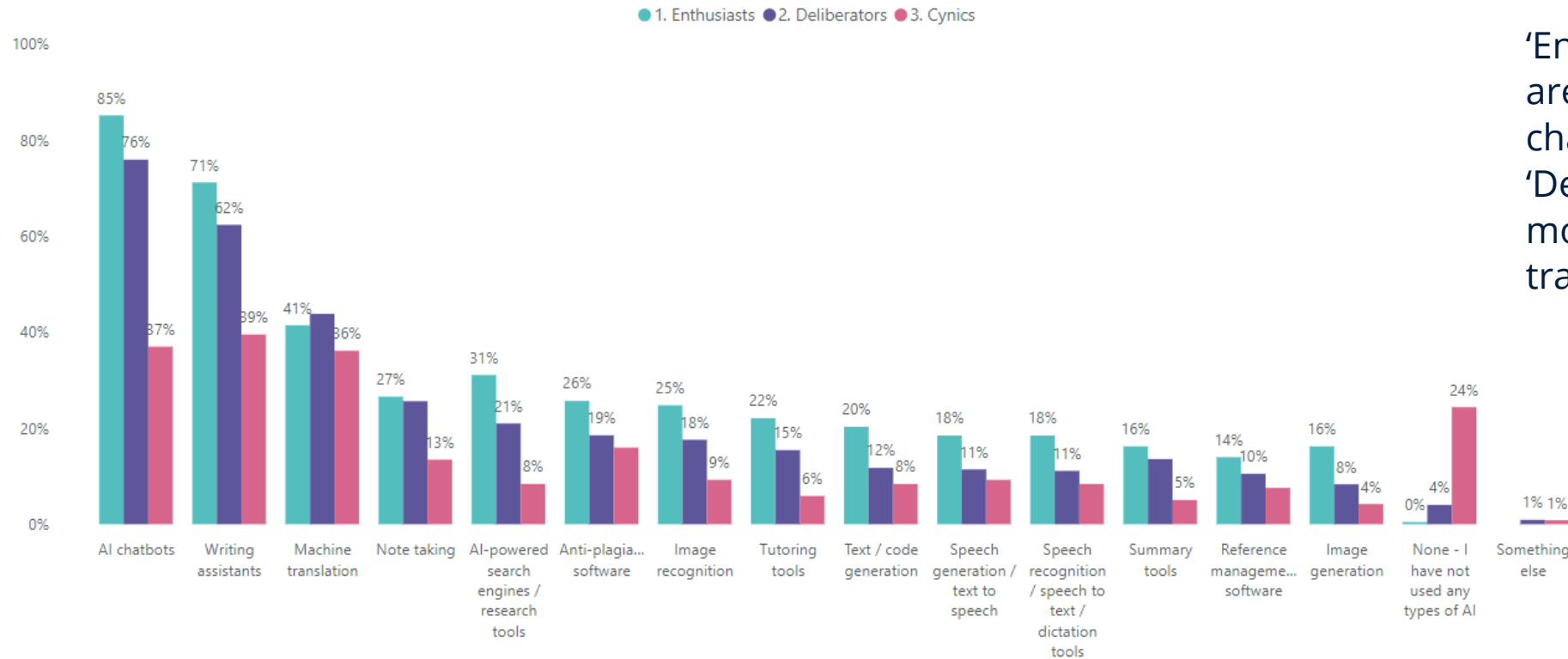
% of each student profile per understanding of AI tools



N: Total: 665; Don't understand anything / very little: 126, Some understanding: 377, Good understanding: 146

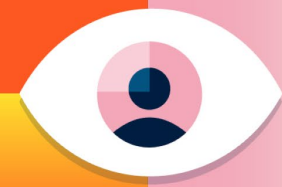


Overall, 94% have used some form of AI to support their learning with 'Cynics' most likely not to have used any types of AI

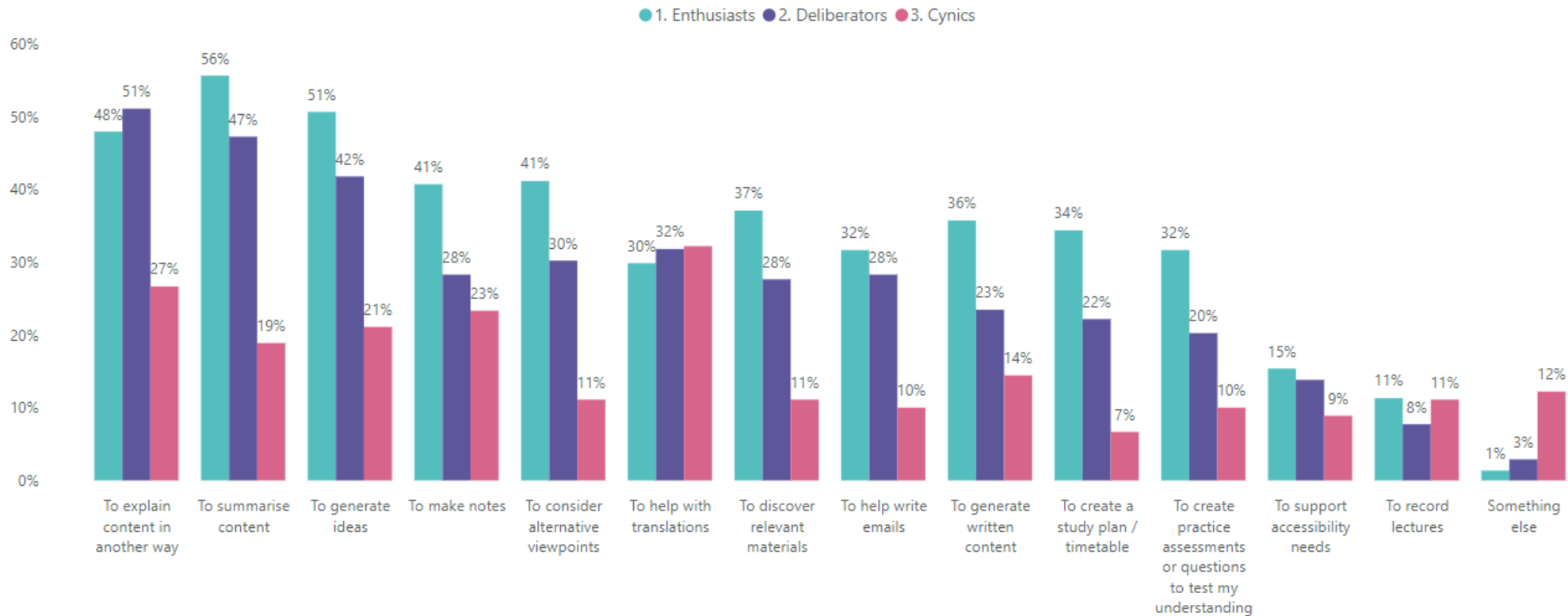


'Enthusiasts' and 'Deliberators' are most likely to have used AI chatbots or writing assistants, but 'Deliberators' are marginally more likely to have used machine translation than 'Enthusiasts'.

Q: What types of AI have you used at any stage to support your learning?



‘Enthusiasts’ are most likely to use AI to summarise content and ‘Deliberators’ to explain content in another way



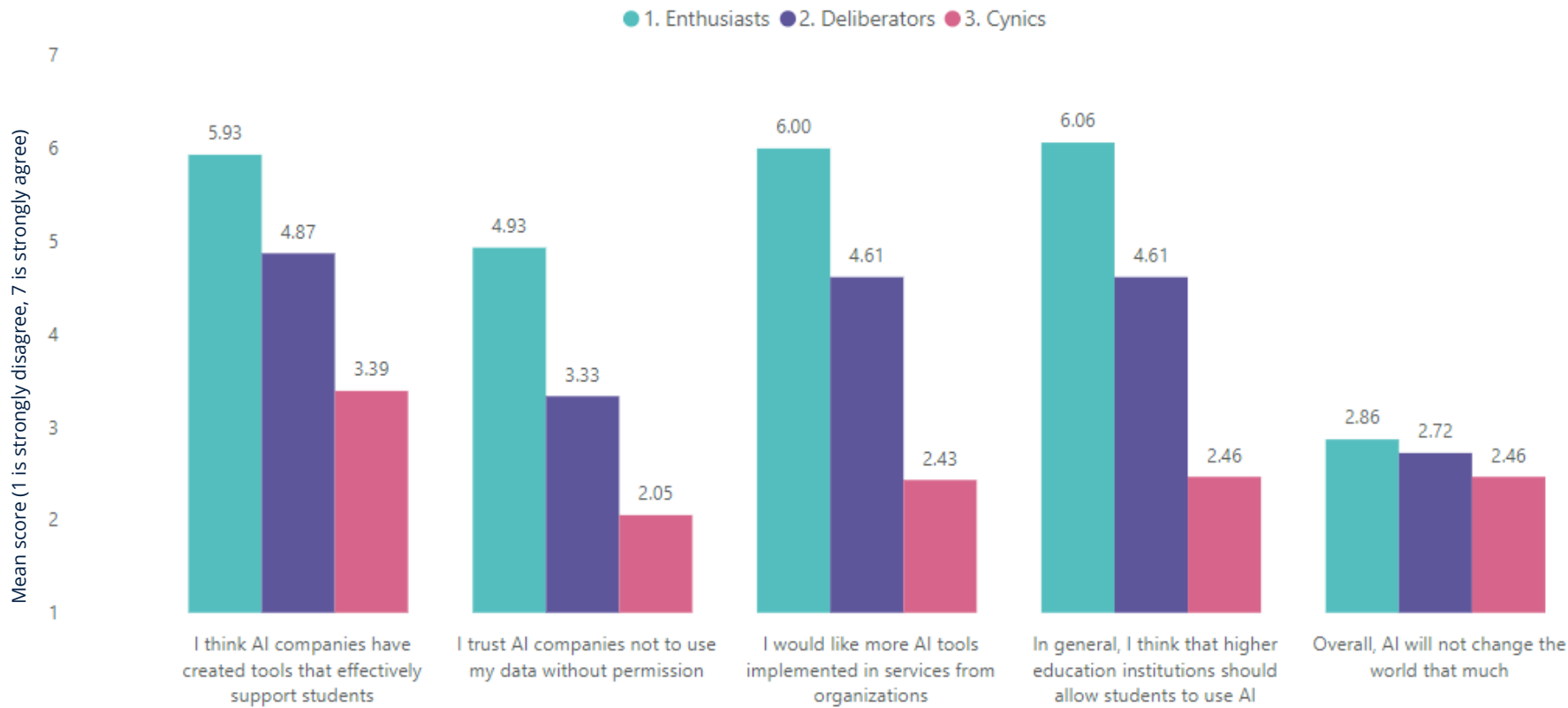
Q: What are the main reasons you have used AI for your learning?

Student attitudes to AI

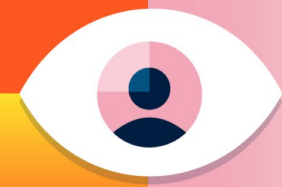




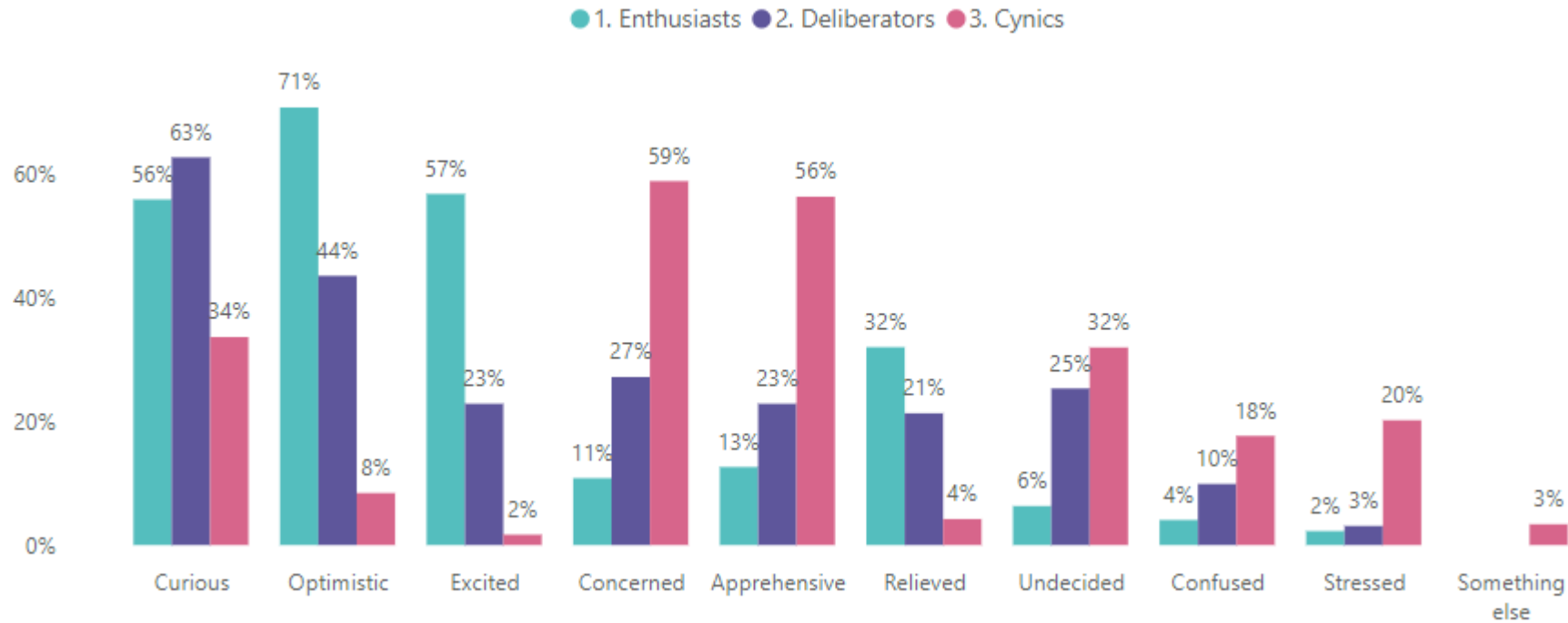
‘Enthusiasts’ most strongly agree with all statements about AI in general



There is no statistically significant difference between the groups in their agreement on whether AI will change the world.

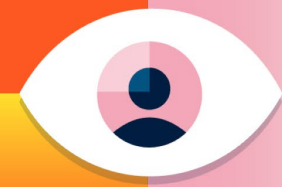


Overall, around half of students report feeling “curious” or “optimistic” about how AI might be used to support their learning

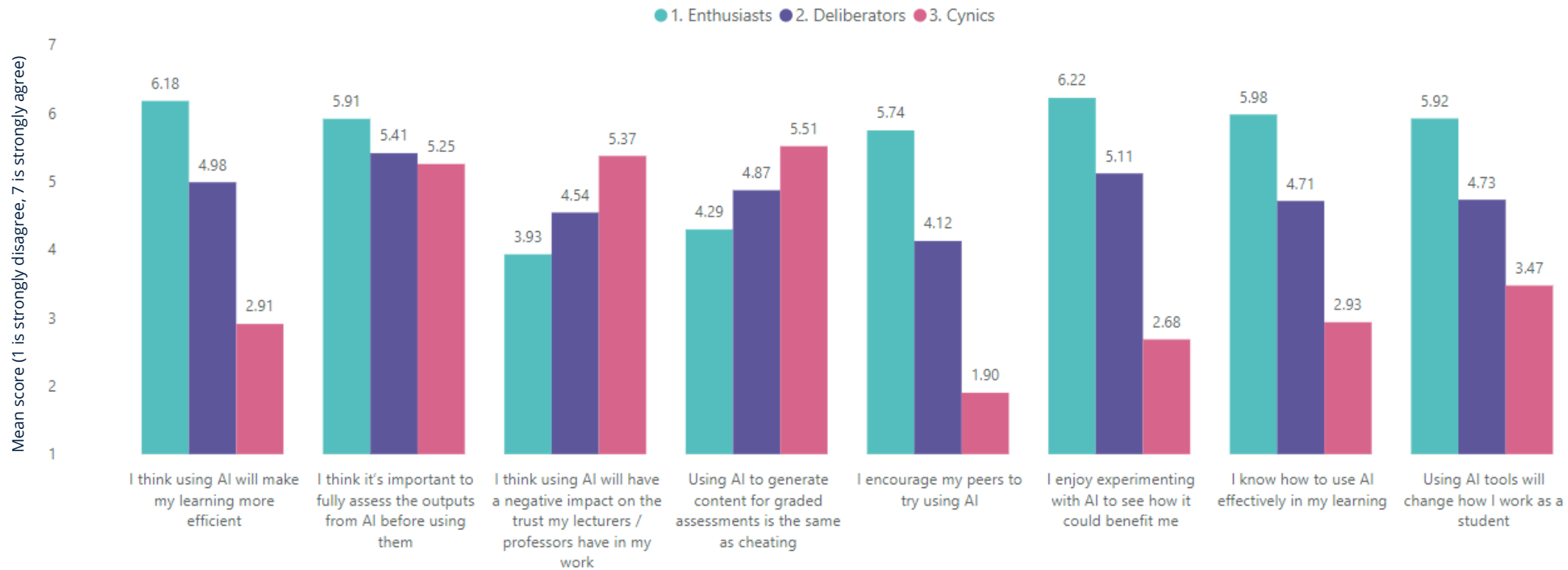


‘Enthusiasts’ are most likely to report being “optimistic”.

‘Deliberators’ are most likely to report that they are “curious” whereas ‘Cynics’ tell us that they are “concerned” and “apprehensive”.



‘Cynics’ most strongly feel that using AI has a negative impact on trust from lecturers and that using AI for assessments is cheating





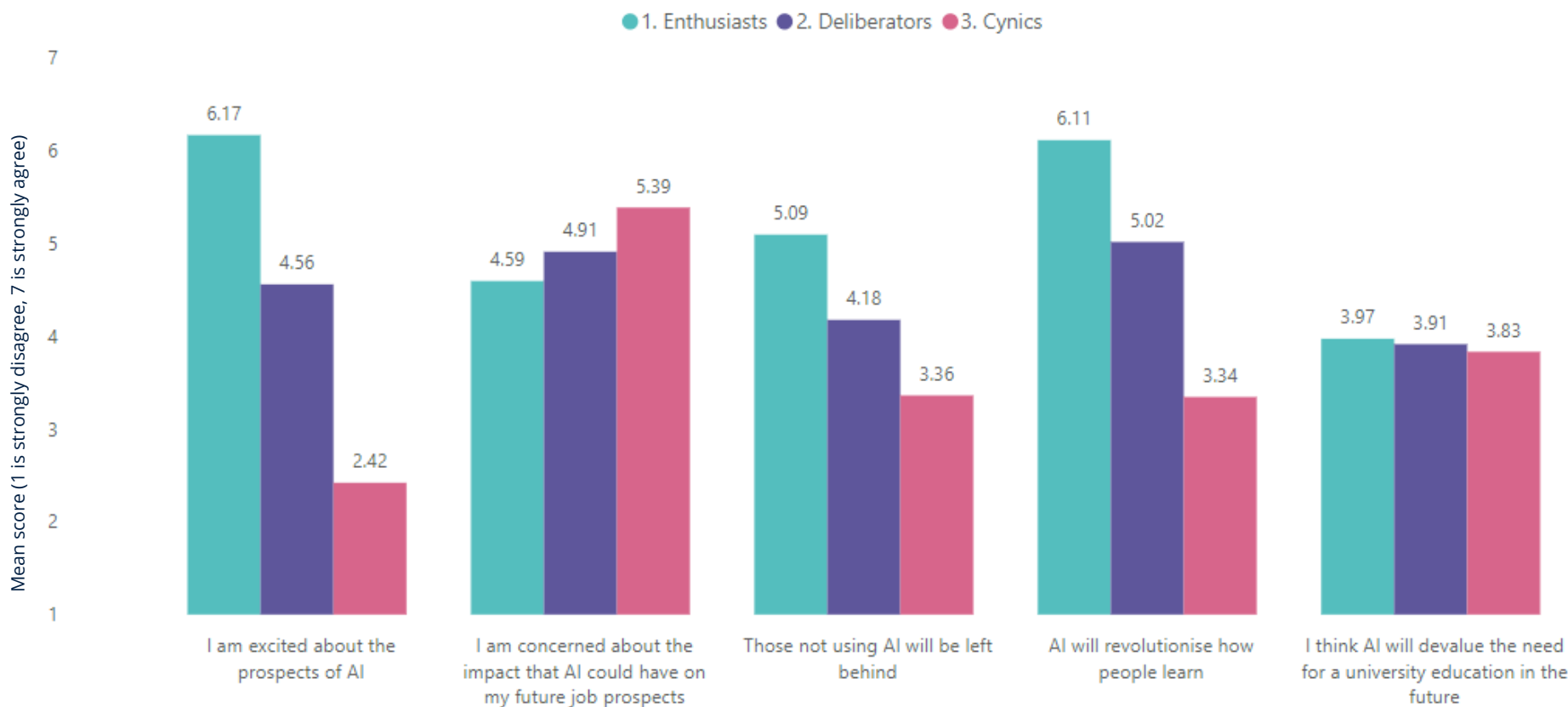
‘Enthusiasts’ more strongly agree that higher education institutions should offer general courses on AI



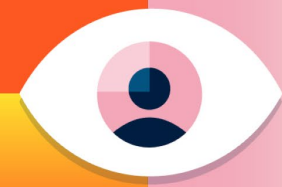
‘Cynics’ are most uncomfortable with receiving written feedback about their work from AI, further cementing their sentiments about being concerned and apprehensive about the use of AI to support learning.



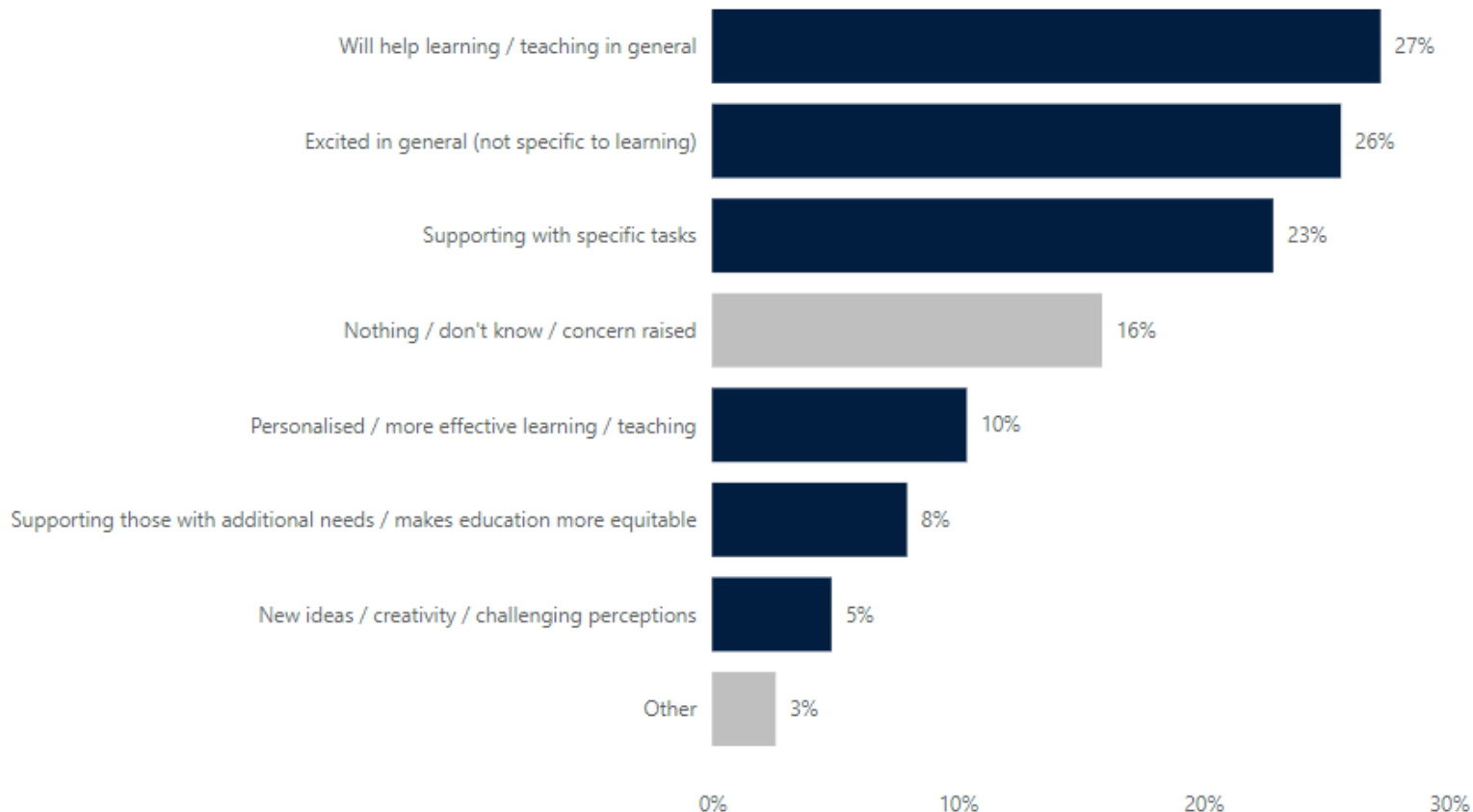
All groups lean towards being concerned about the impact that AI could have on their future job prospects



Furthermore, all groups have a similar level of uncertainty about whether AI will devalue the need for a university education in the future.



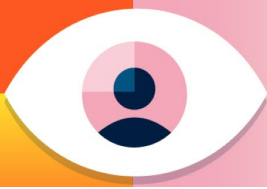
Overall, students are most excited about how AI will help with learning in general



But 16% report that they are not excited about anything when it comes to AI in relation to learning.

Students were asked to write about what they are most excited about when it comes to AI in relation to learning. All open response comments were systematically coded into themes.





Top 3 themes that students are excited about when it comes to AI in relation to learning

Will help learning / teaching in general
(N = 168)

"I am excited and curious about the different ways AI will help me during my studies. It could give me help during revision, how to take notes, how to structure my work but also get ideas on topics."
[Enthusiast]

"How it can be used to optimise learning and what changes will come about to standard learning as we know it now."
[Deliberator]

"How it can help you to learn more efficiently and give you quick and detailed feedback."
[Cynic]

Excited in general (not specific to learning)
(N = 158)

"I really think AI will help advance everyone who is willing to learn about it and use it."
[Enthusiast]

"AI increases opportunities tenfold. It is an exciting prospect that could revolutionise the way in which the world works and could help education become far more accessible."
[Deliberator]

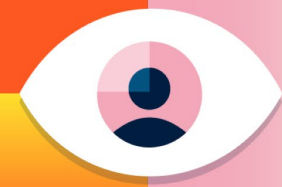
"I'm excited to see what it CAN do but I'm nervous to see what they will MAKE it do."
[Cynic]

Supporting with specific tasks
(N = 141)

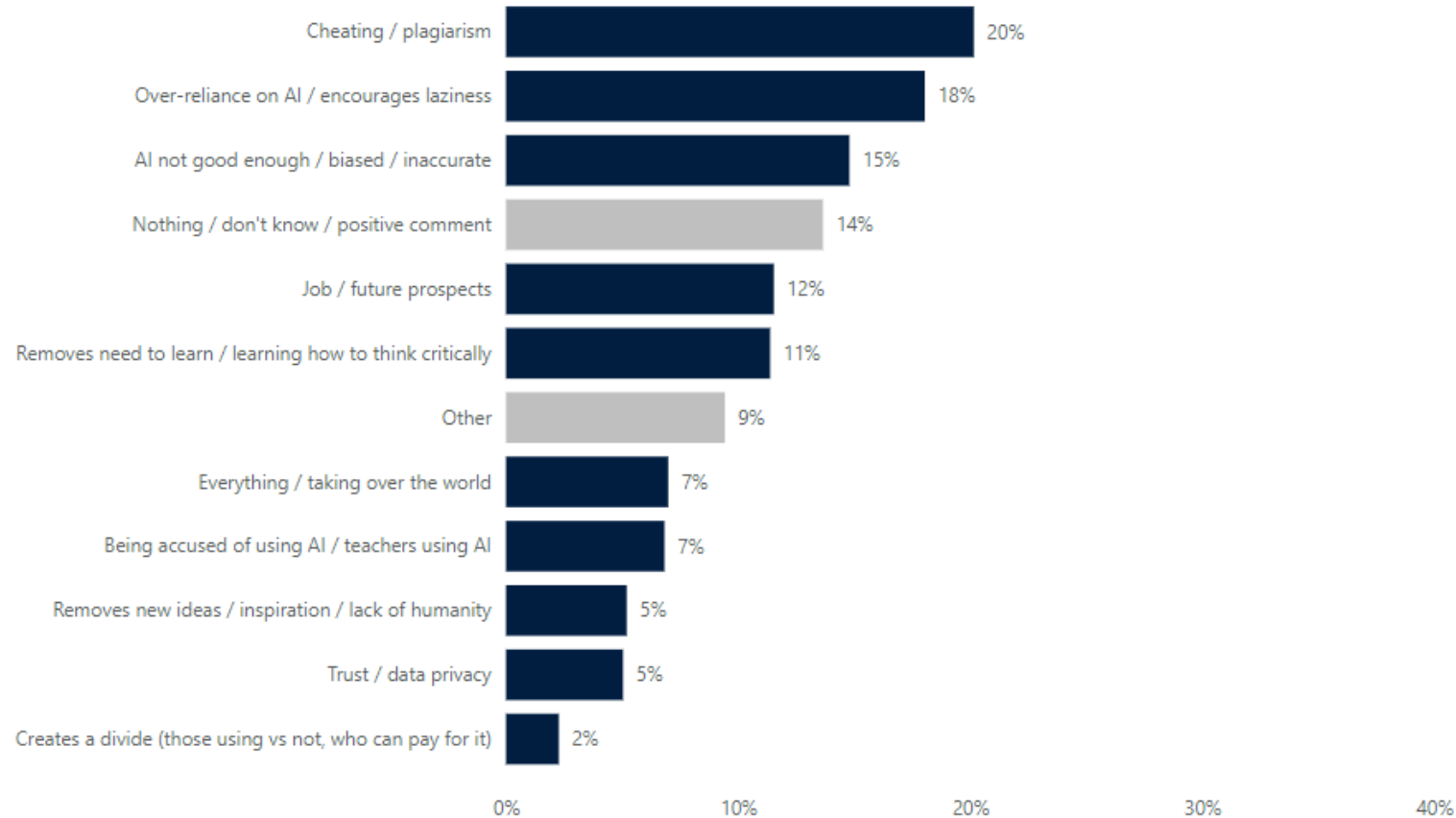
"I am excited about being able to gather information quickly and more efficiently."
[Enthusiast]

"Quicker translations of texts and also speech. As well as more instant transcription for live lectures."
[Deliberator]

"I think it could be good if used to reduce mundane chores and tasks but not for creativity."
[Cynic]

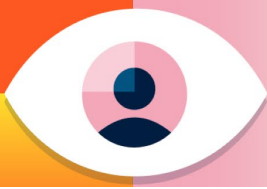


Cheating or plagiarism is the main concern amongst students, followed by an over-reliance on AI encouraging laziness



Students were asked to write about what they are most concerned about when it comes to AI in relation to learning. All open response comments were systematically coded into themes.





Top 3 themes that students are concerned about when it comes to AI in relation to learning

Cheating / plagiarism
(N = 124)

"I'm concerned that a lot of people are gonna get carried away and they are going to start using it more for cheating than learning, and I feel like it's gonna help you more in learning than using it for cheating."

[Enthusiast]

"I'm concerned about using it to cheat. It stealing people's work. It not understanding the work it is criticizing."

[Deliberator]

"I do not think AI has a place in the education system and I think using it is cheating."

[Cynic]

Over-reliance on AI / encourages laziness
(N = 111)

"I am concerned people will over use AI to the point where there are no original thoughts or opinions in peoples work. I also think that if people over use AI in assignments that they are not actually comprehending what they are doing the assignment about."

[Enthusiast]

"People will stop trying to think for themselves they will become dependent of the technology, they are not going to be able to solve problems by themselves."

[Deliberator]

"I am really concerned about the dependency on it."

[Cynic]

AI not good enough / biased / inaccurate
(N = 91)

"I'm concerned with it giving me the wrong answers because there's so much information out there. You have to make sure what you get is correct."

[Enthusiast]

"I am concerned of misinformation and lack of human contact as in the loss of tangible resources which gaining knowledge. It may not be the most credible source."

[Deliberator]

"AI will decrease the reliability of academic work. It will increase cheating. This will devalue education."

[Cynic]

