

What do Northeastern Faculty want Leadership to do about Generative AI in Academic Life

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There were two major Academic Senate Faculty Surveys conducted in 2023; one in Fall 2023 and the second in Spring 2023. In both surveys faculty were asked what support they want to help them with generative AI in teaching and research.

In the Fall 2023 survey the following themes emerged:

Suggested Actions for Administration: To address these diverse views, university administration should consider:

1. Developing and disseminating clear, practical guidelines on the ethical use of AI, tailored to various academic disciplines.
2. Organizing regular workshops and training sessions to familiarize faculty with AI tools and their potential applications in teaching and research.
3. Creating platforms for sharing best practices and real-life examples of AI integration in academia.
4. Offering resources and support for AI-related pedagogical innovations and research.
5. Actively addressing concerns about academic integrity and the potential biases of AI tools to ensure equitable and responsible use.

In the Spring survey, there was strong support among faculty for additional training in using generative AI for research and writing. When asked, 'Do you think the university should provide training for faculty on using generative AI in their research and writing?', a significant portion of respondents were in favor. Specifically, 36.81% (254 responses) strongly agreed with the proposition, while 30.43% (210 responses) somewhat agreed. Meanwhile, 22.46% (155 responses) were neutral, neither agreeing nor disagreeing. Only a small fraction disagreed, with 5.36% (37 responses) strongly disagreeing and 4.93% (34 responses) somewhat disagreeing. In total, 690 faculty members responded to this question, reflecting a notable inclination towards endorsing more training in generative AI applications in academia.

In the Spring 2024 survey, there were 514 comments to question 54, "Please share any additional thoughts or experiences you have regarding the use of generative AI in your teaching and research, especially in relation to the digital divide and skill development." Given the complexity and subjectivity of this task, please note that the categorization is based on my interpretation of the sentiments expressed in the comments.

Positives

1. Generative AI is useful for complex searches, ideation, and critiques.
2. AI can be a helpful tool for students when used responsibly.
3. AI is beneficial for writing tasks and should be utilized for proposals.
4. Some faculty actively promote interdisciplinary research uses of AI.
5. AI could potentially perform complex mathematical tasks in research.
6. Generalized courses on generative AI basics would be useful for students.
7. Using AI is inevitable, and responsible deployment should be taught.
8. AI can be an important tool but needs to be used with care.
9. AI is useful for creating art and video, with historical and cultural context.
10. Encouraging AI in classes can help guide learning on new AI-assisted discovery topics.

Negatives

1. AI should not be used in university courses, especially those involving writing.
2. AI algorithms can produce lower quality work and widen the digital divide.
3. AI may hinder independent and creative thinking in the educational process.
4. There's a lack of understanding and connection when using AI in research.
5. AI usage in student work may result in inaccurate assertions and citations.
6. AI's usage for original creative artifacts may not require critical thinking skills.
7. Over-reliance on AI may affect critical thinking skills in students.
8. AI might devalue writing and thinking, relying on copyright infringement.

Unique Observations

1. AI's usage is not far beyond what was available prior to recent advancements.
2. Faculty need stronger training in intellectual property and academic integrity around AI.
3. AI is like using a calculator – it's a tool.
4. Digital literacy tied to AI usage raises ethical concerns.
5. AI's role in academia needs broader discussion and input from faculty.
6. Faculty should adjust expectations, assuming students will use AI in writing assignments.
7. AI's limits should be communicated to students – it's plausible but not necessarily accurate.
8. AI's use in relation to the history of cybernetics and art movements.
9. Some faculty have not taught since AI became prevalent in academia.

10. A call for a specific committee or professional learning communities focused on AI.

This categorization provides a glimpse into the diverse range of opinions and insights faculty members have about the use of generative AI in teaching and research. Below is a sample of those comments:

1. "Students often lack critical thinking when using AI; they tend to trust AI too much."
2. "I actively promote deeply interdisciplinary research uses of AI that educate students and guide continual learning on new topics of AI-assisted discovery."
3. "The educational process teaches student to think independently and creatively. I fear that AI may hinder that process."
4. "Generative AI is very helpful for writing tasks. We should train our faculty well to use it for proposals."
5. "COE Faculty Development Fridays held a workshop on AI in teaching & learning during Summer 2023 or Fall 2023 I believe. Led by Dean's office and COE faculty who already know a lot about generative AI in teaching and learning. That was very helpful!"
6. "I will not prop up generative AI usage in any of my classes while we are actively witnessing so many cases of neglect (non-consensual scraping of living artists' work) & abuse (revenge porn + propaganda, mis/dis info) daily."
7. "It is an important tool we must learn to use with care and this should be a pedagogical topic for faculty and students."
8. "In teaching legal writing and research, AI may be important in learning how to critically evaluate legal writing and analysis, but students still need the base skills of performing the work themselves."
9. "There needs to be a much stronger training for students regarding intellectual property, academic integrity and reasoning skills around the use of AI."
10. "While the development of skills related to digital technologies (including generative AI) is certainly important for students, it is also important to recognize that not all courses need/should go in this direction. For many courses, it is essential to keep (and even reinforce) developing other skills that will remain important and needed for future professionals to integrate, have a critical understanding, and ethically-oriented application of digital technologies into a holistic academic formation."
11. "Would like to hear more about specific uses of generative AI for reviewing."
12. "It should be taught to faculty and staff."
13. "We need more applied AI workshops for our teaching, research, and service work."
14. "Generative AI is an important tool, but we should take a mindful approach in how we incorporate it into our teaching and research."

15. "We need to acknowledge AI as a tool students already use for their daily work rather than focusing on how to detect the use of AI in student work. Moving toward innovative ways of teaching and using AI will be more beneficial."
16. "It would be helpful to have a clear college/university-level guidance on this subject (if such information has been circulated, it has escaped my notice)."
17. "The use of generative AI when resume and cover letter writing. Employers who can ID students who are using it and may screen them out."
18. "I probably should but I am really really busy"
19. "Generative AI so far cannot perform the mathematics I need/use in my research. I hope one day it will!"
20. "AI should not be used in the university. It especially should not be used in courses involving any writing. The programs themselves rely on copyright infringement and devalue writing and thinking."
21. "i don't use it and there is no reason for my students to use it in the classes i teach"
22. "I think generative AI is a large concern for a lot of folks right now, but ultimately it is not far beyond what we have had access to prior to ChatGPT and image tools like Dall-E. Large Language Models should be explored and researched, but I think we are concerned with the wrong aspects. Instead of asking how they can be applied to redundant situations, we should seek to evaluate their uses in situations that a human cannot feasibly manage. I find myself somewhat disappointed with my field's current research around GenAI. Folks have been extremely focused on finding niche situations to apply GenAI to that offer little to no benefit."
23. "rather than engaging large groups, create small groups to sit with one another and learn through a professional learning community"
24. "Create a Gen AI specific Committee"
25. "I don't see the point of using AI in my research, because I won't understand the information as well. I also don't want to use AI in my teaching because that is how I connect with students - by grading their work and providing feedback."
26. "training for AI in teaching too"
27. "Help...!"
28. "Generalized courses for students on generative AI basics (especially for proofreading their own writing) would be useful."
29. "Students who used AI were obvious because their work was so deeply below standards and full of wildly inaccurate assertions and invented citations. AI algorithms are structured to produce worse quality over time through crowd source evaluations and thus will create a greater divide in the quality from students who do the work and those who use AI."

30. "I don't believe it should be utilized for developing original creative artifacts but it can be used for mundane tasks that do not require critical thinking skills."
31. "All of my assignments are AI proof (e.g. presentations and primary research). I am 100% for AI. Bring it on."
32. "I think it would be nice to include site licenses for AI tools whenever possible so we can use it and teach it. Thanks!"
33. "I think it's important to tell students the limits of AI, that it is meant to generate plausible, but not necessarily accurate, results."
34. "Working with a student and clinical site research team using LLM prompts to evaluate guideline reference development"
35. "using AI becomes a tool like using a calculator"
36. "The fact that you've tied 'digital literacy' to promoting the use of AI by students and faculty constitutes an ethical issue itself - we need to train people to detect it, not encourage them to use it"
37. "Need way more information to make a decision here."
38. "It's not going away — we all need to learn how to use these tools."
39. "No additional thoughts"
40. "I am encouraging it in all my classes and giving guidance. I've published a couple of online articles on my experiences. Personally, I find it most useful for complex search (queries that are hard to specify), ideation, and critiques. I would not trust it on anything to do with data due to hallucinations."
41. "We need more training and more policies."
42. "I think faculty should assume that students will use AI in writing assignments and adjust expectations accordingly."
43. "Students should do the work of learning. I know this is putting my head in the sand, but they have to do the work to learn the material."
44. "Good supplemental tool for students when used responsibly."
45. "I use text-to-image generators for art and video and teach students how to do this. I contextualize AI art in relation to early cybernetics history, Dadaist photomontage of the 1930s, more contemporary collage work, the slow adaptation of photography as 'art,' and Postmodernist arguments deconstructing 'authorship' and 'originality.'"
46. "The questions in this survey do not cover the full range of how generative AI can be used in academia. More input from faculty should be solicited before surveys like this one."
47. "AI is inevitable. Teach everyone to be responsible in its deployment, especially those most resistant to it."

These comments reflect a diverse range of perspectives and concerns related to the use of generative AI in academic settings.

Faculty Views and Needs: The survey results from Question 81 indicate a prevailing apprehension about the role of AI in academia. Concerns about academic integrity, skill erosion, and ethical implications significantly outweigh the potential benefits. This cautious stance suggests an urgent need for comprehensive guidelines and strategies for responsible AI integration in academic settings. The demand for clear guidelines and strategies is evident, underscoring the importance of preserving academic integrity and fostering critical thinking skills in the era of AI.

There were 117 responses to question 81 on Faculty Needs and Perspective of generative AI in Teaching and Research. Here is a sample of 68 of them:

1. "Students have been using ChatGPT to cheat. This has been a major problem."
2. "I have serious concerns about the negative impact the use of these tools by students will have on thinking and learning. I see them being used inappropriately and there is little that can be done about it (because often it is impossible to prove how the tools are being used)."
3. "No concerns for me - worry a bit about the students (but not too much)."
4. "Ethical concerns regarding intellectual property, data privacy, humanizing technology, etc."
5. "I am actually considering leaving teaching altogether, in part because the effect of generative AI on students' willingness and capacity to conduct their own research and write their own work in the humanities seems so low. This is compounded by NU's clear disregard for the humanities, meaning that students don't get any message that learning to do these things for themselves will have short-term or lifelong value."
6. "AI uses work without attribution to work. Faculty should not be encouraged if they have professional or ethical qualms with the technology."
7. "I don't fundamentally trust the output."
8. "None. I love AI, I just need to figure out how or if I can use it in teaching."
9. "Plagiarism."
10. "AI plagiarism."

11. "I worry that AI will have a reductionist impact on how we all encode meaning in writing and other forms, further favoring mainstream norms and modes. Further, we need to anticipate unexpected consequences of what is clearly a disruptive new tool."
12. "I have many concerns about students relying too much on AI, and their critical thinking, writing, and other skills becoming underdeveloped as a result. However, its use is inevitable, so my role is to teach students how it should and should not be used. I think many faculty are not sure how to incorporate it into their teaching effectively."
13. "I'm worried about plagiarism."
14. "We're all grappling with what plagiarism is and how assignments need to change. I have not been badly affected so far due to the nature of my assignments--human plagiarism is problem enough, thanks!--but I expect this to change as the technology advances. I would also like to see if it could help me teach more productively. I have used it to brainstorm assignments and create images for presentations, and I teach a session to all my undergrad and some of my grad classes. Despite claims in the outside world, I find it useless for grading. In terms of my research, the tools are helpful but not lifechanging in terms of literature review. That too may change. I am very interested in this topic. Feel free to reach out. Bruce Clark, DMSB."
15. "I am comfortable researching and thinking about AI -- it is my job. I just disagree with the current Northeastern policy."
16. "Mostly, I'm concerned about the outsize concern/freakout about these tools and the culture of fear. I'm also concerned that some faculty are saying things like, "most writing is boring and useless anyway, so why not have the AI do it." Both the fears and the dismissive attitude serve students poorly. Generative AI tools are tools — we need to be teaching with them as such and showing students how they can be used ethically."
17. "We need to embrace to protect your intellectual intelligence or we will be run by computers and decisions about us will be done by computers. That is SCARY - why bother learning if I can have an external brain make all the decisions...no need to continue to populate the world if computers / AI will run it. Scary scary scary..."
18. "Concerns are centered around access and equity to Gen AI tools."
19. "I worry my students will use it to get good grades without considering the impact to their learning."
20. "I worry it might diminish some skills like the ability to create without a prompt as well as some writing skills."
21. (Continuation of the 15th comment) "...not sure how to incorporate it into their teaching effectively, but I would love to learn how to create multiple choice tests - I think that's brilliant."
22. "I am concerned about students believing them as reliable sources and that generative AIs do not accurately cite the sources of their information."
23. "I am concerned that students will use it to complete their work and won't learn valuable life skills that they would otherwise be exposed to if they did the work themselves."

24. "Having students use AI decreases their ability to write for themselves."
25. "I don't use it in my own research. For students, my concerns are 1) that they will see it an easy way to avoid developing good writing and research skills, 2) that they will be satisfied with the very broad and vague answers that AI generates (at least, at the moment) for research questions. I want them to see it (like Wikipedia) as a useful starting point for work, not as a substitute for work."
26. "Making sure I understand it well enough to determine how it can be used (ethically) and when it should not (or be used with attribution)."
27. "It can produce biased results with made-up sources - so an analog to humans I guess."
28. "Inaccuracies in aggregate data."
29. "This term I was worried about student plagiarism and encouraging a robot to do the work for them."
30. "Confusing students on proper protocols with respect to employers in job search."
31. "I am concerned about plagiarism. Also, how does AI enhance students' learning?"
32. "I only worry about the suppression of these tools and the lack of direct discussion and guidelines with faculty and students from the university."
33. "Elimination of jobs."
34. "Discerning violations of academic integrity."
35. "My lack of enough knowledge."
36. "Needing to ensure equitable and sustained access to the service for all. Concerns regarding biases in material AI is trained on."
37. "Plagiarism."
38. "I fear that it becomes very hard to teach the old way, and faculty need to change the way they create assignments and how they assess students. In terms of research, I fear my published works and original ideas might be stolen and refurbished and published under someone else's name! I fear the book publishing industry might collapse."
39. "I do not trust ChatGPT."
40. "Not having good enough reason to make it worthwhile."
41. "I'm worried, like a lot of faculty, about how much students are offloading their thinking and writing onto AI. I worry that deploying it on purpose while teaching may be taken as an 'okay' to use it however they like. However, I do understand that the right set of guidelines will help them to understand what AI can and can't do for them."
42. "None at present."

43. "When students use AI to generate assignments they hand in there is a discrepancy in their understanding of the material which is evident in their other interactions such as class discussion or presentations."
44. "Confidentiality, intellectual property."
45. "Ban it."
46. "Efficient use assisting with faster learning focus."
47. "1. Intellectual Honesty: Lack of attribution when used by students - and faculty for that matter.
2. Missed opportunity: Reduction of critical thinking and systems thinking despite the reality that genAI could be used to develop those very competencies."
48. "It's a terrifying journey into uncharted territory."
49. "Loss of creativity or thinking on one's own; risk of losing the willingness to exert or have one's own voice."
50. "I'm concerned that if we don't bring it into the classroom we are doing our students a terrible disservice. These tools will be in our lives now so we need to put them front and center and work with them constructively but also with deeply critical awareness and forethought to what they portend for human creativity, agency, etc."
51. "Not sure how actually useful it will prove to be."
52. "Deteriorating models."
53. "No concerns. Not an issue."
54. "My primary reservation centers around ensuring ethical use and understanding the broader implications of AI in education. There's a need for clear guidelines and policies that address privacy, data security, and potential biases in AI algorithms. Another concern is the risk of over-reliance on AI tools, which might overshadow critical thinking and problem-solving skills in students. In research, the challenge lies in maintaining the integrity and originality of work amidst the ease of generating content through AI. It's crucial that we provide adequate training and resources to faculty and students to navigate these complexities effectively, ensuring that AI serves as an aid to learning and research, not a substitute for fundamental academic skills."
55. "I'm taking a wait-and-see approach for the most part. Pretty neutral about it all. Happy to let others think it through first and then I'll pay more attention. I'm rather tired of it sucking up so much oxygen."
56. "Making sure students do not rely on AIs for their final drafts."
57. "I think generative AI is not as promising or revolutionary as anticipated. It may be more useful in background-oriented processes, such as with spell-check and generative text prompts like we've had in Gmail."
58. "The potential for misuse and replacement of critical thinking."

59. "While I do not have any personal reservations or concerns regarding the deployment of Artificial Intelligence (AI) in my teaching or research activities, I do believe it is crucial for students to have clear guidelines on how to appropriately use these tools. The integration of AI in academic settings offers numerous advantages, such as enhanced learning experiences, access to a wealth of information, and more efficient research processes. However, to fully harness these benefits, students must be properly trained. This training should focus on ethical usage, understanding the limitations of AI, and the importance of critical thinking in conjunction with AI outputs. Ensuring students are well-equipped to use AI responsibly and effectively is key to maximizing its positive impact in an educational context."
60. "Accusing students of AI text is a dangerous and time-expensive game."
61. "No consistent policies across the university."
62. "My only reservation is understanding that my use of AI will inform my students' use of AI but they do not have the maturity or context that I have as someone who's been in a professional working environment for years."
63. "Just having the time to learn how it works and use it effectively. I think it will be really important for students to learn, so I will need to as well."
64. "Trust in the output."
65. "People not being super aware of black box data etc."
66. "If students want to use it I want them to use it for refinement and not to entirely do an assignment for them."
67. "It's such a complex subject... I'm honestly still wrapping my head around it. My biggest fear (as with many professors) is that students use it for writing papers and discussion posts, etc."
68. "I am concerned about the students relying on these tools for research and analysis instead of their own critical thinking skills."