

My class required AI. Here's what I've learned so far.

(Spoiler alert: it has been very successful, but there are some lessons to be learned)



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I fully embraced AI for my classes this semester, requiring students to use AI tools in a number of ways. [This policy](#) attracted a lot of interest, and I thought it worthwhile to reflect on how it is going so far. The short answer is: great! But I have learned some early lessons that I think are worth passing on.

First, as background, I required AI use in slightly different ways across three separate undergraduate and masters-level entrepreneurship and innovation classes. One class was built on extensive AI use: I required students use AI to help them generate ideas, produce written material, help create apps, generate images, and more. Another class [had assignments](#) that required students to use AI, and other assignments where AI was optional. For the final class, I introduced them to AI tools and suggested their use, but did not have specific AI assignments. All of the classes had the same AI policy, and I provided every class with my [guides to using AI](#), [writing with ChatGPT](#), and [generating ideas with ChatGPT](#).

III. AI Policy

I expect you to use AI (ChatGPT and image generation tools, at a minimum), in this class. In fact, some assignments will require it. Learning to use AI is an emerging skill, and I provide tutorials in Canvas about how to use them. I am happy to meet and help with these tools during office hours or after class.

Be aware of the limits of ChatGPT:

- If you provide minimum effort prompts, you will get low quality results. You will need to refine your prompts in order to get good outcomes. This will take work.
- Don't trust anything it says. If it gives you a number or fact, assume it is wrong unless you either know the answer or can check in with another source. You will be responsible for any errors or omissions provided by the tool. It works best for topics you understand.
- AI is a tool, but one that you need to acknowledge using. Please include a paragraph at the end of any assignment that uses AI explaining what you used the AI for and what prompts you used to get the results. Failure to do so is in violation of academic honesty policies.
- Be thoughtful about when this tool is useful. Don't use it if it isn't appropriate for the case or circumstance.



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In one assignment, I asked students to “cheat.” They were told: *You need to generate a 5 paragraph essay on a topic relevant to the lessons you have learned in the class so far (team dynamics, selecting leaders, after action reviews, communicating a vision - whatever you like!), but you are going to have an AI do it for you. You will also generate at least 1 illustration to go*

with your essay. They had to try at least 5 prompts, and they had to write a reflection at the end on how the AI did.

Almost everyone's first prompts were very straightforward. They usually pasted in the assignment directly, something like **generate a 5 paragraph essay on selecting leaders.** Sometimes they went a little further: **use an academic tone** or **write it for an MBA class.** The result was almost always a mediocre C- essay. I think this is what most teachers are seeing, and why a lot of people underestimate what ChatGPT can do as a writing tool.

However, in my assignment, I required students to use multiple prompts, which forced them to consider how to improve their output. At this point, students went in one of three directions. It would help to show you examples of these paths, so I wrote fictional prompts:

Approach 1: Minor variations, letting the AI do the work

1. Generate a 5 paragraph essay on selecting leaders
2. Generate a 5 paragraph essay on how leaders are selected by teams
3. Generate a 5 paragraph essay on how leaders are selected by teams and how team process works
4. Generate a 5 paragraph essay on how leaders are selected by teams, team process, and leadership ability.
5. Generate a 5 paragraph essay on how leaders are selected by teams, team process, and leadership ability, 250 words.

Approach 2: Adding restrictions and user knowledge

1. Generate a 5 paragraph essay on selecting leaders
2. Generate a 5 paragraph essay on selecting leaders, cover the babble hypothesis, leader status effects, and seniority
3. Generate a 5 paragraph essay on selecting leaders, cover the babble hypothesis, leader status effects, and seniority. Explain that the babble effect is that whoever talks the most is made leader.

4. Generate a 5 paragraph essay on selecting leaders, cover the babble hypothesis, leader status effects, and seniority. Explain that the babble effect is that whoever talks the most is made leader. Use examples. Use vivid language and take the perspective of a management consultant who has gone back for her MBA. Write for a professor in an MBA class on team strategy and entrepreneurship.
5. Generate a 5 paragraph essay on selecting leaders, cover the babble hypothesis, leader status effects, and seniority. Explain that the babble effect is that whoever talks the most is made leader. Consider the challenges and advantages of each approach. Use examples. Use active tense and storytelling. Use vivid language and take the perspective of a management consultant who has gone back for her MBA. Write for a professor in an MBA class on team strategy and entrepreneurship.

Approach 3: Co-editing

1. Generate a 5 paragraph essay on selecting leaders
2. That is good, but the third paragraph isn't right. The babble effect is that whoever talks the most is made leader. Correct that and add more details about how it is used. Add an example to paragraph 2
3. The example in paragraph 2 isn't right, presidential elections are held every 4 years. Make the tone of the last paragraph more interesting. Don't use the phrase "in conclusion"
4. Give me three possible examples I could use for paragraph 4, and make sure they include more storytelling and more vivid language. Do not use examples that feature only men.
5. Add the paragraph back to the story, swap out the second paragraph for a paragraph about personal leadership style. Fix the final paragraph so it ends on a hopeful note.

The first approach yielded very mediocre results and students with these types of prompts often described the results as feeling rather vapid. The second approach was significantly better, but the results were more variable, as students were engaging in trial-and-error with entire prompts. That made fine-tuning a good essay hard, and students using this approach often remarked that they felt they did not have a lot of control over the outputs of the AI. By far the best approach, which led to both the best essays and the most impressed students, happened when people took the co-editing

approach. The approach required a lot of careful focus on the AI output, which also made it very useful for student learning. As we discussed in our whitepaper, teaching an AI to improve an essay is a pedagogical method that can produce new insights. I would strongly suggest that you push students in this direction, if you intend to incorporate AI essays into your classes.

Another key lesson was that training on AI tools is really important, and students need to be shown the basics of prompt-crafting. In other classes, before I taught students how to use AI, many were using simple prompts that yielded bad results. After discussing the tools and sharing my guides, prompting got much better and the results in class improved dramatically. But even then, most of the students were not using the most advanced prompting techniques, like giving ChatGPT personas (“You are an MBA student who has spent 4 years working in the military in logistics. You are an excellent writer and use clear examples. You do not repeat yourself”), without further instruction.

Students understand accuracy and bias issues

I have seen lots of educators concerned about the fact that the AI lies, frequently and well. But, seeing my students’ work, I think this is less of a problem than many think. Students understood the unreliability of AI very quickly, and took seriously my policy that they are responsible for the facts in their essays. It was clear that they carefully checked the assertions in the AI work (another learning opportunity!), and many reported finding the usual hallucinations — made up stories, made up citations — though the degree to which these problems were overt varied from prompt to prompt. The most interesting fact-checks were the ones focused on subtle differences (“it captured the basic facts of the example, but not the nuance”), suggesting deep engagement with the underlying concepts. Reading these reflections, I think we should be a bit less concerned about the idea that students will always be taken in by a lying ChatGPT. They are capable of understanding the limits of the tools, and the focus on facts forces them to pay attention to the details of the AI essay, creating some real teachable moments.

Similarly, students were very aware of the issues of bias in these systems, though ChatGPT was less of a concern than image generation tools. The tendency of the tools to produce biased images (MBAs were almost always depicted as men by default in some tools, for example) was apparent to many students. In their essay, they thoughtfully discussed their efforts to get the AI systems to produce images that reflected their fellow students. Having a discussion about this in class when introducing these tools was helpful.

AI is everywhere already

Even if I didn't embrace AI, it is also clear that AI is now everywhere in classes. For example, students used it to help them come up with ideas for class projects, even before I even taught them how to do that. As a result, the projects this semester are much better than previous pre-AI classes. This has led to greater project success rates and more engaged teams. On the downside, I find students also raise their hands to ask questions less. I suspect this might be because, as one of them told me, they can later ask ChatGPT to explain things they didn't get without needing to speak in front of the class. The world of teaching is now more complicated in ways that are exciting, as well as a bit unnerving.

Once classes concludes, I will write more about how students are using AI in other ways, both required and spontaneous. I also hope to soon share some research, rather than just qualitative impressions. However, based on my experience, I think focusing on **how** people use AI in class rather than **whether** they use it will result in better learning outcomes, happier students, and graduates who are better prepared for a world while AI is likely to be ubiquitous.

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Bravo! 👏

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