A Simple Solution for Academic Dishonesty

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My last post on the future of higher learning mentions a higher learning revolution, focusing on the demand (i.e., students, peers and parents) side. That sounds intimidating, especially with the extreme word "revolution."

While concerns about disruption exist, a revolution in higher education isn't imminent. Unlike property insurance, which faced a clear crisis, universities aren't in immediate need of drastic change. Revolutions launched during periods of relative stability often prove premature and destined to fail.

1 Solving One Big Problem in Higher Learning

Following a "Wait and see" approach does not mean we do nothing at this moment. On the contrary, we can still take conservative (or humble) steps to address the most obvious problems today and set up the platform in preparation for the future.

What is the "Clear and Present Danger" (quoting the 1994 American action thriller film based on the Tom Clancy novel) that universities face today following the widespread use of GenAI? Academic dishonesty in the GAI era is definitely one.

1.1 Cheating in the Age of ChatGPT

This post from Compilatio.net on August 1, 2023, entitled "Cheating in the age of ChatGPT: findings and solutions for preserving academic integrity," summarizes the new problem well:

"In the age of AI, the opportunities for cheating have multiplied, challenging educational institutions... Cheating has always existed in educational environments, but AI has added a new dimension to the problem. 'Traditional cheating' often involves copying work without crediting the author - plagiarism. AI now offers new possibilities. Students can use AI-based tools to generate content. Students believe that the answers provided by text-generating AI are original and free from plagiarism. And that's the problem."

The author(s) blame ChatGPT as a part of the problem, to the extent that "ChatGPT does not cite its sources most of the time. It rephrases, uses quotations and copies the authors' writing style without crediting them. This is considered plagiarism... in some cases, GPT models can be trained on proprietary or confidential data, which can lead to the unauthorised use or disclosure of sensitive information." according to the author of "'The Dark Side of the Moon' by ChatGPT" that the post cited.

I am not sure if ChatGPT is literally plagiarism, and until courts establish a precedent, calling ChatGPT a liar or an accomplice in academic dishonesty might be an overreach, although fine as a personal opinion.

After all, AI chatbots summarize information from various sources rather than directly copying a single piece of work. In my opinion, their answers are more like a review summary than anything else, with too many sources to be cited in a short bibliography.

In a legal safety sense, Perplexity.AI has been the best as it always lists 5 or 6 sources and claim something like "Based on the search results provided," before

presenting the summaries in the answer. But there is a trade-off, sometimes I feel their answers are narrower than, or not as inclusive as Gemini, although I do not know to what extent it is due to the number of sources covered.

1.2   Reasons for Cheating in the Age of AI

The same post of Compilatio.net lists three reasons for cheating in the AI era:

- Increasing academic pressure.

- The ease of access to text-generating AI.

- The feeling that "no one will be able to tell that the text was written by Chat-GPT."

The first reason is kind of weak, as academic pressure has always been high, at least in the US. The second and the third reasons are more believable, especially the third one.

1.3   The Current Solutions

The same post suggests several solutions:

- make students aware of the consequences of cheating and to promote a culture of intellectual honesty.

- encourage authentic learning and creativity. By focusing on tasks that involve critical thinking, the application of knowledge and problem solving, teachers can reduce the incentive to cheat.

- plagiarism detection tools need to be improved to identify advanced forms of AI-based cheating.

The last solution is the most often cited. The post offers citation protocols like the following:

OpenAI. (Year). ChatGPT [Computer software]. Retrieved from https://www.openai.com/research/chatgpt.

This is for APA format, below is MLA format:

OpenAI. "ChatGPT." Computer software. OpenAI, year. Web. [Retrieval date]. https://www.openai.com/research/chatgpt.

2   A Better Solution

Reading the above post, especially the citation formats, makes me think there must be a better way to do it. The post author(s) admit that "Cheating in the AI age poses unique detection challenges. AI systems can generate sophisticated content that can be difficult to distinguish from genuine, personal work."

2.1   Legal Safety

My solution is simple and easy: Professors demand that all students submit not just their homework/reports/thesis/essay, and not just the digital citations in a standard format as listed above, but their chatbot prompts, together with the first 50–100 words of the answer, in an appendix.

This is the safest thing to do, and it does not matter what the future legal status of the ChatGPT (or Gemini, or Jasper, or Copilot) answers will be, colleges, professors and students all will have themselves covered from now on.

2.2   The Academic Advantages

But safety is only one consideration. A more important one is benefiting higher learning. Essentially, the appendix provides the "digital trace" of student

learning experience attached to the end of the homework or papers. It allows the professors to see the *thinking path* of students, which is sometimes more important and meaningful than their final answers. The more follow-up prompts the students have submitted, the clearer their thinking paths will be, and the higher their motivation level.

There is a change of mindset by professors and college administrators: Installing software to detect AI source is playing a defensive game, implicitly presuming an academic dishonesty on the student side. Asking for AI prompts is playing a proactive game. It implicitly encourages the use of GAI materials, because for one thing, AI contents are treated the same as other non-AI sources.

It is also the most logic thing to do, to the extent that AI answers can be drastically different with different prompts. On the contrary, merely listing ChatGPT in the end, even with the date when the answer was received, helps little. We may or may not receive exactly the same answer on another day from the same chatbot. This differs from the non-AI citations, which will remain the same and unique as long as, or as soon as, you spell out the authors, publication outlet, and date right.

In that sense, by making different AI prompts, students have passively become a part of the "creators" of the AI answers, especially for those answers with inherent uncertainty and variation, more so than with objective info.

For example, Copilot, ChatGPT, Perplexity or Gemini will most likely tell you the same answer that there was a Sun Eclipse on April 8, 2024, regardless of how you asked.

On the other hand, I am reading this interesting article on using GenAI as your own Sigmund Freud psychoanalyst today and the author was prompting ChatGPT "What did Sigmund Freud say about the use of free association?"

Since I hardly use ChatGPT, I decide to do an experiment on Gemini. First I

entered exactly the same prompt "What did Sigmund Freud say about the use of free association?" Next, I made another prompt: "What did Sigmund Freud say about **his stupid notion of** free association?" (Emphasis added).

Guess what, in the answer to my first prompt, Gemini did not mention any criticism of free association, but it did in the second answer. In that sense, I helped create the unique Gemini answers, or have brought them to the light of the day.

2.3   Best Policy on AI Cheating

Professors should make it a clear policy that they will never penalize students for asking "wrong" questions or making "naive" AI prompts, following the spirit that there is never a "stupid" question. However, professors should take advantage of the extra pieces of information submitted by students to find problems or issues in learning.

They can offer recommended ways of solving the problems or composing the papers, based on the common or unique prompts students have used. This becomes an important part of higher learning: Students not only need to get the best results but through the best route. They will learn to ask better questions in the future. In Chinese, we are teaching people how to catch fishes, not simply giving fish to them "授人以鱼不如授人以渔"

As a hypothetical example, for a course of Electric Engineering 101, two students, Jane and Andy, submitted the same answer to a homework. But the professor notices that Jane has dug much deeper into the problem by asking several follow-up questions or prompts. This extra information was not available before GenAI era, but it is now. The professor can do one of two things: Assigning extra credit to Jane but not Andy, or giving the same grade to both but will mention the self-initiative learning attitude of Jane in a letter of recommendation in the

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future.

2.4 Peer Assistance Possible

In the future, with a well-established higher learning platform designed for registered college students, alumni, and faculty, students can leverage several resources. They can consult AI-generated answers, but if they find these unhelpful, they can also seek insights from peers. This platform could connect them to alumni or students who have taken similar classes (even from different universities), allowing students to benefit from their experience and guidance.

Of course, all learning related events will be recorded by the platform and put in a file to be submitted to professors.

The platform will grant credits (or platform points) to those who offered valid, accurate and proven right answers to fellow students. The platform also will save the evaluations from those who received the assistance in a file for the helpers, who can then use them in job applications, resumes, personal website or blog for self-promotions.

For the earlier example, the Mechanic Engineering professor can set up a folder on the platform for Jane, which will contain all the thoughtful homework and papers that are accessible only to the professor and Jane herself. With this much digital trace on record, professors can write vivid letters of recommendations, while students can also present facts and evidence for the third party — or just for their own fun memories.

At the minimum, the platform will automatically keep track of students' AI chatbots prompts and the answers and put them in a digital file, either standing alone or being attached to the homework/papers to be submitted to professors.

There are many other functions and services that the platform can provide. For example, students can find co-founders for their startup on the platform, and

they can also form teams of higher learning, with humanity students and STEM students coming together to tackle a subject, an academic topic or a problem from different perspectives. Bear in mind that in the future, interdisciplinary knowledge will be more important than ever, as separate knowledge can be easily accessible through GAI.

In the past, we relied on just a handful of photos, often from family or college, to preserve our memories. Today, a wealth of digital files—pictures, documents, assignments, evaluations, messages, and more—are at our fingertips, offering a richer and more comprehensive record of our experiences.

3   Learning from a High School Teacher

I want to end this short post by citing this post by a high school English teacher, who proposes that "We need to rethink our entire approach to measuring student learning and the effectiveness of teachers and schools. **Let's take those measurements every day and let's do it in a way that doesn't obstruct us.** We have the technology to do that... Let's have outside evaluators sample student work at random to measure progress. Take the science of political polling and apply it to evaluating students, teachers and schools. It will be imperfect but better than the current mess." (Emphasis added).

Perhaps the days when every college course ends in two exams (the midterm and the final) will be gone for good, to the extent that we no longer require memorizing textbooks, lecture notes and penalize those who are not good at taking tests but really have a decent understanding of the course materials.