

The ChatGPT Effect: Rethinking Architectural Pedagogy in the AI Age

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Can the architectural classroom harness the power of advanced text-generating tools? This paper delves into the dramatic shifts spurred by these tools in architectural pedagogy, with a particular focus on OpenAI's ChatGPT. It underscores the pressing need to reconfigure our pedagogical strategies as we grapple with the profound implications of such technologies for traditional essay-based assessments.

The advent of these text-generating tools in the academic realm presents two distinct paths for the future of architectural pedagogy. We could revert to traditional, invigilated examination methods, a choice fraught with challenges like exacerbating students' exam anxieties and promoting rote learning. Alternatively, we could embrace progress, acknowledging the inevitable influence of these tools on student work, and pivot assessment strategies towards elements that currently elude these technologies – metacognitive and soft skills.

This investigation acknowledges the ethical dilemmas of tool-assisted work, from blurred boundaries of authorship to potential inequities as students with access to superior tools gain an advantage. Yet, amidst these considerations, the study emphasises the enduring importance of a robust grounding in history, theory, criticism, in crafting socially meaningful, utilitarian, and life-enhancing architecture, even in the face of these tools' transformative influence.

Drawing on firsthand experience and empirical data from a restructured History, Theory, and Criticism course at a tertiary institution, this paper explores student feedback and how their perceptive and expectations of working with generative tools might be better aligned within an academic context within a supportive, ethical and transparent framework. This perspective offers a glimpse into the potential of a pedagogical model that incorporates these tools while preserving the primacy of critical thinking and research skills.

As we navigate this evolving educational landscape, this study underscores the imperative of preparing our students not just for the architectural challenges of today, but for the tool-enhanced realities of tomorrow.

CHATGPT'S ACADEMIC DILEMMA:

ChatGPT, a product of OpenAI, is a state-of-the-art Large Language Model (LLM) designed to generate human-like text based on the input it receives. LLMs like ChatGPT are specialised models for natural language processing and generation. They are a subset of Generative AI (GAI), which focuses on creating new content, be it text, images, or sound. In contrast, AI (Artificial Intelligence) is a broader field encompassing various technologies and applications, including machine learning and neural networks.

ChatGPT processes vast amounts of text data to produce coherent and contextually relevant responses. While it can generate human-like text, it's essential to note that ChatGPT doesn't possess consciousness or emotions; it generates responses based on patterns learned during training.

The introduction of ChatGPT into the academic realm has raised several concerns. Foremost among these is the potential for academic dishonesty. There have been reports of students using ChatGPT for their examinations, leading to heightened discussions about plagiarism and academic integrity. This has prompted several institutions to take measures.

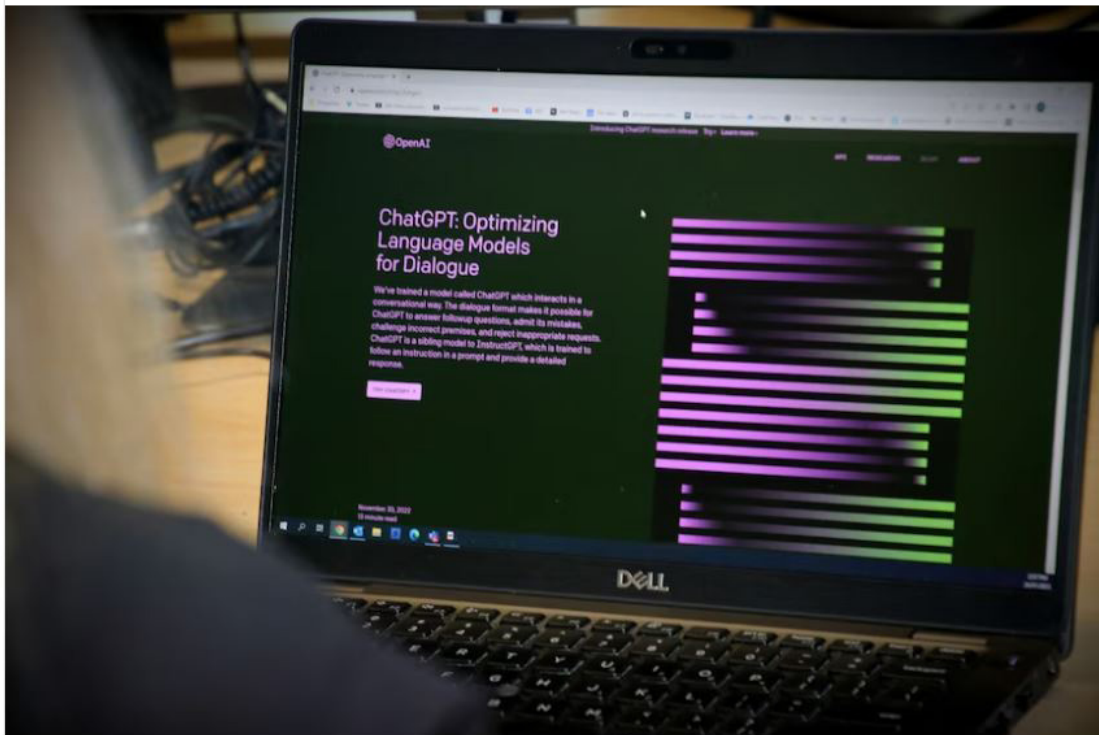
Conversely, ChatGPT offers numerous positive opportunities for academia. Students have found it to be a valuable tool for research, understanding complex topics, aiding in language learning, and even for creative writing and brainstorming ideas. Its capabilities extend beyond just answering questions, offering potential as a tool for translation, summarization, and more.

In January (2023) the New York City Department of Education announced a state-wide ban on ChatGPT on all school-owned networks and devices. Around the same time, Australia's Education Department went in a similar direction initiating a reactionary policy and banning the use of LLMs, as well as returning to written invigilated exams. Notably, the [Group of](#)

ChatGPT sparks cheating, ethical concerns as students try realistic essay writing technology

By Ashleigh Davis

Posted Thu 26 Jan 2023 at 11:16am, updated Thu 26 Jan 2023 at 2:07pm



ChatGPT has the ability to write bespoke essays and exam responses. (ABC News: Gian De Poloni)

Figure 1. News articles like this from ABC News were commonplace at the beginning of 2023, sparking concerns throughout education departments across the world.

Source: ABC (<https://tinyurl.com/3dvm25aj>)

Eight (Go8) universities have made changes to their assessment policies, with the University of Sydney explicitly identifying “generating content using artificial intelligence” as a form of academic misconduct. While experts acknowledge the potential educational benefits of AI, they also highlight challenges related to academic integrity.

And it’s not just a minefield for students: at the beginning of the year, Editor-in-Chief of Science, vehemently denied ChatGPT’s capacity to create or adopt the role of “author” in any form, arguing that using text generated from LLMs amounts to plagiarism.

The temptation to employ LLM’s is afforded within institutions by a general air of confusion, ambiguity, and misinformation, where neither students nor educators (in general) appear to

have a clear idea of what these tools are capable of and how they could be used.

The challenge is only becoming more complex and ubiquitous: ChatGPT currently has 200 million active users, with a predicted rise to 500 million by the beginning of 2024. So while not all ChatGPT users will be university students, even from a conservative estimate it’s clear to see how prolific this tool may be within institutions of higher education.

OpenAI has unveiled GPT-4, a substantial stride in deep learning, showcasing a multimodal model proficient in handling image and text inputs to generate text outputs. Unlike its predecessor GPT-3.5, GPT-4 impresses with human-like performance on professional and academic benchmarks, notably scoring in the top

10% on a simulated bar exam (a pronounced leap from GPT-3.5's performance that lingered around the bottom 10%.)

Since September 25, 2023, several notable enhancements have been made to ChatGPT, expanding its capabilities from solely text-based interactions to multimodal interactions involving voice and images. While ChatGPT is perhaps the most recognised LLM, it is only one among many: One website for the machine learning community, boasts over 110 more.

This paper will begin with a brief overview of the current situation that we – as educators and researchers – find ourselves in, before moving to disambiguate some of the concerns and fearmongering that was rife at the start of the year but has since settled as we begin to reflect and revise our stance to these systems (as the systems themselves adapt and advance). I present an argument for both keeping essay (written) assignments within university courses (specifically architecture) but on the understanding that it is a) revised and reframed to reflect the likely inclusion of LLMs within a clear, and controlled setting, and b) that it is not the sole indicator of a student's understanding and ability, but rather, forms part of a larger more holistic assessment structure that is mapped across the course or degree. In short, written assignments have a lot to offer, as do LLMs, like ChatGPT, the challenge is finding effective ways to navigate between them and ensure they are only used when and where appropriate.

PEDAGOGICAL PERCEPTIONS, PROSPECTS & PITFALLS:

I teach and coordinate a compulsory second-year History, Theory and Criticism paper (HTC) at my university, a course that forms an essential component of the architectural curriculum. It is also one of only three courses in which students will be asked to write an essay as part of an assessment, before they reach 5th year (second-year Masters) and are required to write a 10-20,000 word thesis.

A decade ago this HTC course had only one assignment: a written essay worth 100%. Historically, the written essay has been a pivotal tool for educational assessment. Like any required output, the assumption is that this artefact will align with the intended Learning Outcomes (LOs) of the course, and that its creation is encapsulates a student's accumulated knowledge and insights acquired to date. Like any artefact, its validity as an assessable output, lies in its origins and provenance: that we can trust that there is no clear way to circumvent the learning process in the production of the output.

LLMs challenge this assumption: a few text prompts can generate larger amounts of text, often more fluent and articulate than the prompt provided by the (human) author. This could be perceived as also bypassing the various learning opportunities that are embedded in the process of essay writing (research, analysis, evaluation, critical reflection, persistence, time-management and so on). But upon closer inspection, it's not quite

this black and white: for all of its power to incite fearmongering and catastrophising, LLMs have enormous potential to effectively improve equity issues and generally raise the bar on students written communication and articulation. Although oratory and the ability to convey what's in the head to the designer to their colleagues, clients and other stakeholders, is an invaluable skill they are not a key part of the LOs for this particular HTC course: rather, I want a robust assessment method that gauges students' knowledge, understanding, and ability to apply course concepts to new situations, enabling them to craft informed and considered solutions to architectural challenges. When an essay is poorly written and the clarity of communication is compromised in some way, I no longer have confidence in my ability to accurately assesses these skills within the pages of their essays.

Amid the challenges of the Covid-19 pandemic and a thorough course overhaul, the latest version features major updates, especially in the diversified assessment structure, offering a clearer insight into students' capabilities: designed as a flipped and blended course, covering architectural theories from the mid-1960s to now, this course uses interactive H5P videos on topics like gender in architecture and the climate crisis. These topics are delved into during in-person seminars. Additionally, students tackle mini-assignments tailored to each week's theme.

The course now has four distinct assignment types:

Precedent Study (10%): Students analyse a selected building, highlighting its architectural context and tracing its historical influences.

Critical Review (30%): In this 3000-word essay, students explore the contemporary relevance of a chosen lecture theme, supported by two case studies.

Visual Portfolio (25%): Students compile four images, each reflecting specific lecture themes, creating a visual study aid.

Mini Assignments (35%): These weekly tasks, undertaken during seminar sessions, encourage reflection on the week's theme and its practical implications.

The last two assignments are deliberately not essay based: the visual portfolio inherently discourages reliance on generative AI tools and LLMs like ChatGPT. These portfolios demand a personal, visual interpretation of lecture themes, necessitating an individual engagement and reflection upon the material.

The mini-assignments consist of low-stakes assignments (2-3%) and consist of a short reflective written tasks and a group-exercise or activity. These are conducted during seminar sessions, and are designed to foster active participation, discussion, and critical thinking. This format was successful in mitigating (or at least not readily enabling) the employment of AI or LLMs, either because it was perceived as not worth the additional effort, or

simply because students have a preference to work collaboratively and discuss these ideas with peers in-person.

The shift in assessment emphasis signals a broader pedagogical move towards metacognitive skill development. By focusing on how students think about their learning processes, the assignments encourage self-awareness, self-regulation, and an ability to evaluate one's understanding.

It was, however, the Critical Essay that I was most curious about in terms of how ChatGPT may influence the nature of the work submitted by students. This was my fourth year running the course with this assignment – a critical written essay of significant length – but the first time that student taking the course would have access to LLMs and ChatGPT. I circulated a questionnaire on the topic to survey the students and get a clearer sense of their awareness and understanding of the issue/s. For comparison I asked them to confirm which year group they were in: one for past students from this course who were still in the school, one for current students of the course, and one for the year below (who will take this course next year.) The process of creating the survey questions for the HTC course was a collaborative effort between the course instructor (myself) and ChatGPT.

Aims:

- Understand students' familiarity and comfort level with ChatGPT.
- Gauge students' intentions to use ChatGPT for upcoming assignments.
- Assess the perceived impact of ChatGPT on essay quality and learning outcomes.
- Gather insights on ethical and practical concerns related to using ChatGPT for academic purposes.

I (course coordinator) provided the initial context, objectives, and desired outcomes for the survey. Offered feedback on the draft questions and ensured alignment with the course's goals. ChatGPT assisted in drafting, refining, and structuring the survey questions based on the provided objectives. Offered suggestions for question types, response scales, and potential answer choices.

The collaborative process had five stages:

Initial Discussion: We began with a discussion on the course's context, the role of ChatGPT in the curriculum, and the specific feedback desired from students.

Drafting Questions: Based on the initial discussion, ChatGPT proposed a series of questions designed to capture students' experiences and perceptions.

Review and Refinement: I reviewed the proposed questions, offering feedback on clarity, relevance, and depth. This iterative process ensured that each question was pertinent and aligned with the survey's objectives.

Incorporating Feedback: ChatGPT incorporated my feedback, refining questions for clarity and ensuring a balance between open-ended, multiple-choice, and Likert scale questions. Clear descriptors were provided for Likert scale ranges, and opportunities for elaboration were included where relevant.

Final Review: The refined set of questions underwent a final review to ensure comprehensiveness and alignment with the survey's aims. Additional prompts and clarifications were added as needed.

Through this collaborative approach, we successfully constructed a series of questions that are poised to provide valuable insights into students' experiences and perceptions of using ChatGPT in the HTC course. These were disseminated amongst the students. No demographic or otherwise identifying information was collected and all data was anonymised.

From the results (*Table 1*) we can clearly see that almost all students have some awareness and familiarity with ChatGPT, 80% acknowledge that they have used it before for essay writing assignments, and 33% admit that they are likely to use it for their upcoming written assignments. While this may appear to be cause for concern, it is worth reviewing the different ways in which students intend to engage with the Chat: the top three being to improve their grammar and articulation, to provide content suggestions, and to help structure their writing. It is also worth noting how the perception of these incentives shifts across year groups: first year students need more assistance with sourcing content and formatting/referencing, a trend that decreases as students become more experienced and familiar with the research process. Whereas assistance with grammar and articulation become a greater concern for students later in the program as they become more focused on being able to effectively communicate this knowledge and understanding (rather than simply obtaining it). Nearly three quarters of participants feel that students may become overly reliant on generative AI and similar tools, but only half considered this to be a problem. Finally, it's interesting to note that most students sampled would like to be further involved in focus groups to discuss the role of ChatGPT in their coursework. This is consistent with the open-text responses, suggesting that students are interested in ChatGPT and how it could be employed in their coursework in a manner that was ethical, equitable, and approved by the course director/institution.

This is consistent with the results from the open-text response questions (*what would encourage you to use it?*). Here are the main ways students who are familiar with ChatGPT and plan to use it for their upcoming assignment intend to incorporate ChatGPT's input into their essays:

		2023	2020-22	2024	average.
		n = 111	n = 108	n = 44	
Have you heard of ChatGPT before this course?	no	8%	1%	0%	3%
	yes	92%	99%	100%	97%
Have you used ChatGPT outside of academic purposes?	no	34%	18%	44%	32%
	yes	66%	82%	56%	68%
How familiar are you with the capabilities of ChatGPT?	extremely-very	20%	25%	12%	19%
	slightly-moderately	64%	67%	69%	67%
	not at all	16%	8%	19%	14%
Do you plan to use ChatGPT for your upcoming essay assignment?	no	32%	19%	16%	22%
	unsure-unlikley	39%	39%	56%	45%
	probably-definitely	29%	42%	28%	33%
Have you used ChatGPT to assist with essay writing assignments in the past?	no	20%	22%	14%	19%
	yes	80%	78%	86%	81%
Why do you feel hesitant or unsure about using ChatGPT for your assignment?	(see discussion)				
What would encourage you to consider using ChatGPT for your written assignments?	(see discussion)				
What are your primary reasons for considering the use of ChatGPT? (check all that apply)	improve grammar	60%	55%	39%	51%
	content suggestions	47%	66%	78%	62%
	structure writing	42%	48%	50%	46%
	speed	42%	54%	44%	46%
	ease of use	16%	20%	28%	21%
	formatting and refs	19%	25%	39%	27%
	other	16%	14%	0%	10%
How significant do you think tools like ChatGPT might be on learning methods in architectural pedagogy?	hardly-not at all	18%	15%	11%	14%
	fairly	49%	41%	39%	43%
	very-extremely	33%	45%	50%	43%
Do you feel that students might become overly reliant on AI tools for their academic work?	no	33%	31%	17%	27%
	yes	67%	69%	83%	73%
Do you see this reliance as a potential problem?	no	33%	67%	50%	50%
	yes	67%	33%	50%	50%
Would you be interested in participating in a focus group discussion about the use of ChatGPT in this course?	no	34%	29%	59%	41%
	yes	66%	71%	41%	59%

Table 1. Summary of survey responses to ChatGPT questionnaire from students from different year groups (note: year columns = year that the student respondent took/will take their second-year HTC course)

- Structure Assistance: Many will use ChatGPT for essay structuring and bullet point suggestions.
- Polishing: Some will draft and structure their work, then turn to ChatGPT for refinement, especially during fatigue.
- Idea Generation: Some use ChatGPT outputs to stimulate their own thoughts and understanding.
- L2 Proofing: Non-native English speakers use ChatGPT to understand complex sentences and rephrase their content. (see Figure2)
- Content Verification: After research and writing, some cross-check with ChatGPT for enhanced content suggestions.

The responses indicate a strategic and supplementary approach to using ChatGPT. These students seem to prioritise their own understanding and effort and consider

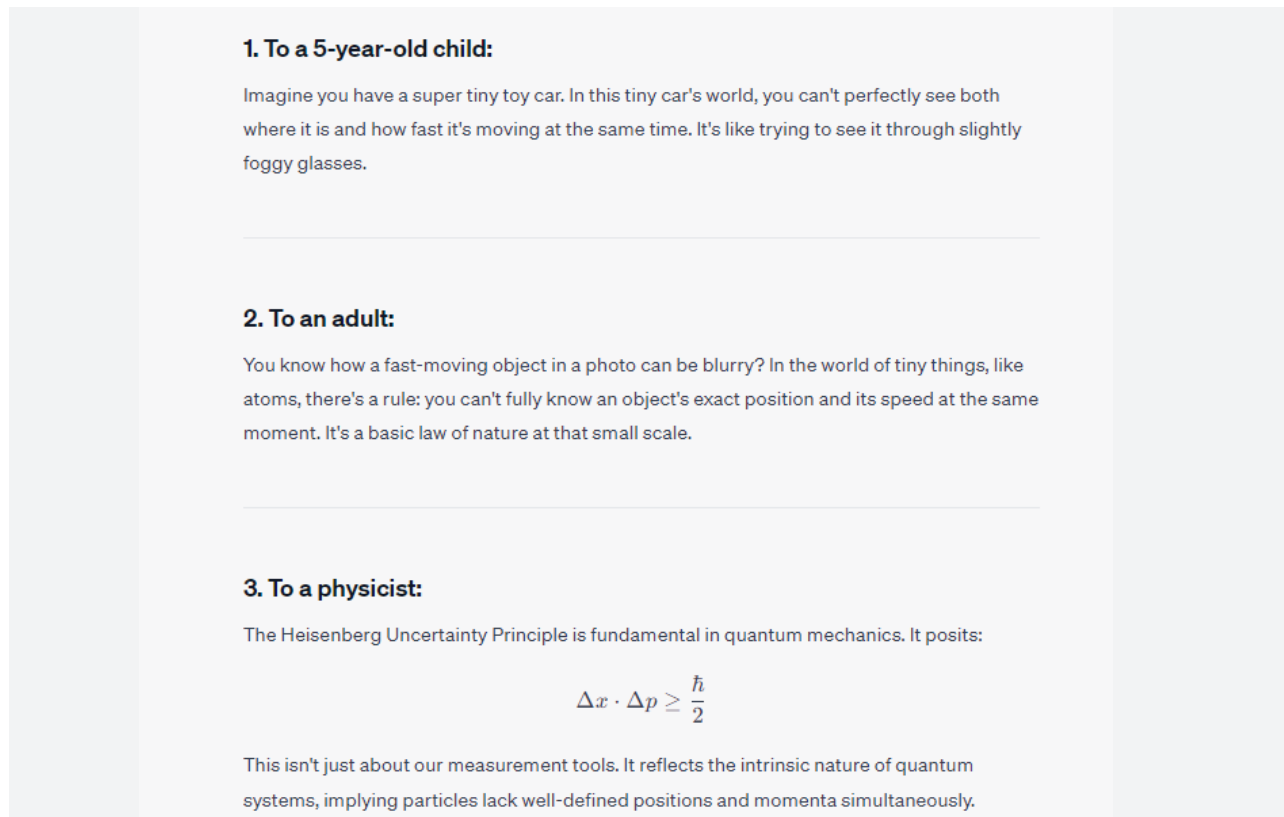


Figure 2. ChatGPT response to being asked to succinctly explain the Uncertainty Principle to three different audiences: a child, an adult, and a physicist.

ChatGPT as a tool to enhance, polish, or verify their work rather than replace it.

When queried about its ability to meet students' expectations, ChatGPT clarified that it was indeed able to provide assistance in all of these areas but warned that it may not capture specific academic nuances or a student's unique voice, risking misalignment of arguments and loss of originality. And that students should critically evaluate its suggestions and ensure their work retains personal authenticity.

However, the primary concern is the authenticity of the work. If students lean too heavily on ChatGPT, the final essay might not genuinely represent their own understanding. There's a risk that students might inadvertently reproduce ChatGPT's outputs word-for-word, leading to potential academic integrity breaches, breaches that may not even be accurately identified (or indeed, identified at all).¹ In this instance the course/institution is at risk of mistakenly rewarding a degree to a student who has met certain proficiencies based on work that instead demonstrates the capabilities of the tool (and not the user).

Moreover, both tutors and students should be wary of ChatGPT's inherent biases and limitations. While the tool is powerful, it can sometimes provide information that's not entirely precise or

might even fabricate details. It could also favour mainstream sources, potentially overlooking critical or niche perspectives.

For example, the "Confidence Artist" issue with LLMs like ChatGPT arises when users, impressed by the system's authoritative responses and references, overlook inaccuracies due to overconfidence in the tool. This uncritical acceptance can mislead both students and assessors, who may lack the resources to verify every reference, undermining critical thinking and evaluation.

ChatGPT is also sensitive to input phrasing – it won't necessarily tell you what you want to know rather what it thinks you want to know based on what it believes you have asked. This includes common language issues, lexical ambiguities, and the incentive to appear "human" in its response.

With this in mind, I collaborated with ChatGPT to generate a series of tips and advice for students who are interested in better understanding how ChatGPT could be effectively and ethically leveraged to assist with improving the quality and communication of the various components that go into the task of essay writing (see *Figure 3*). This was presented to students in one of our face-to-face seminar sessions, where I introduced ChatGPT to the class and they participated in various small group

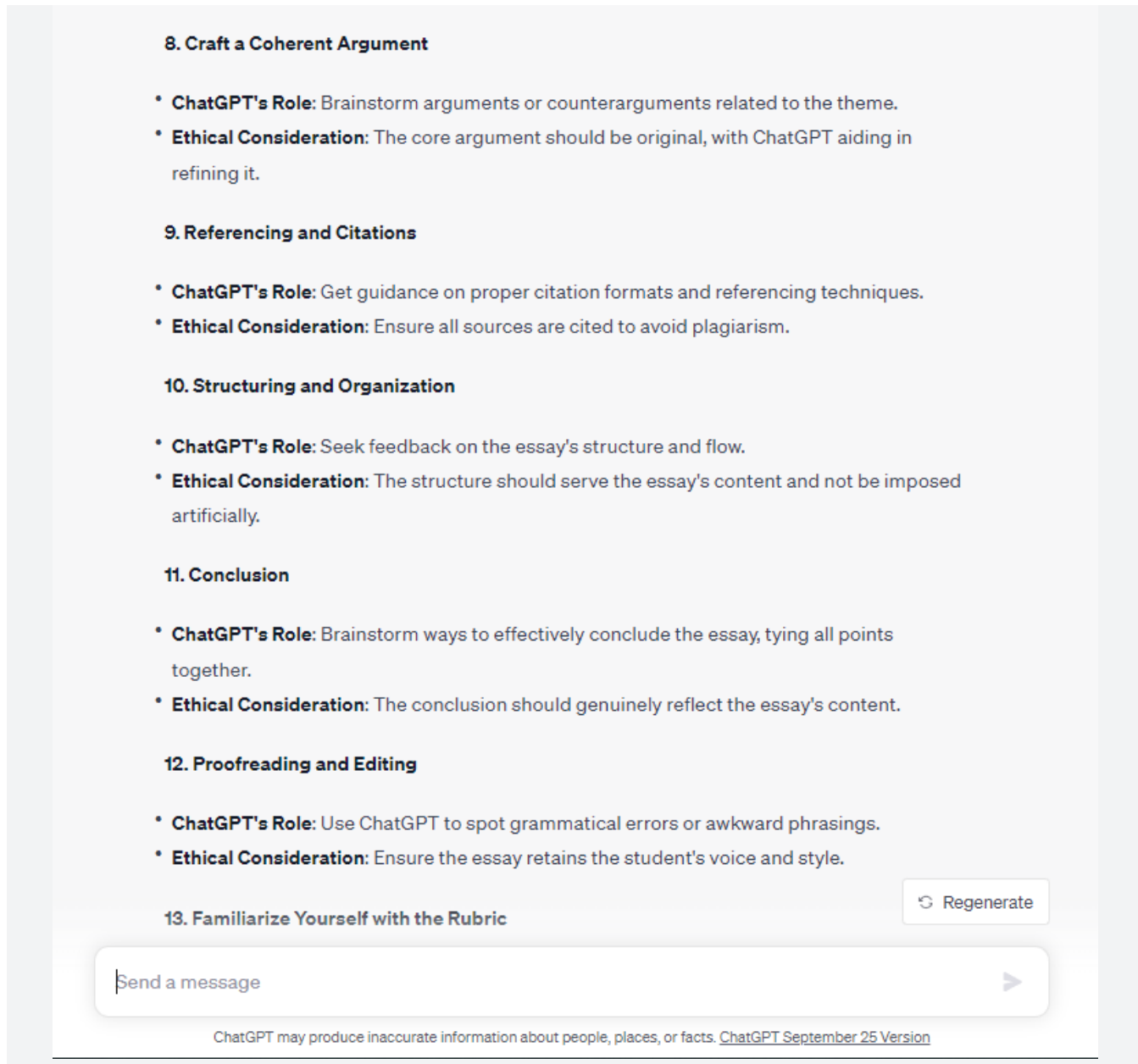


Figure 3. Extract from a 14-point list of tips for effective essay writing and structuring tailored to architecture history, theory, and criticism courses, and how ChatGPT could be effectively and ethically leveraged to improve their capacity to effectively address each of these components

exercises and discussions on the impact of these sort of generative tools and technologies, and had the opportunity to ask me questions about how they could use it in this (HTC) course. Students appreciated this explicit and deliberate explanation, and the opportunity to demystify and disambiguate LLMs and its approved usage within the course.

BEYOND TRADITIONAL EVALUATIONS:

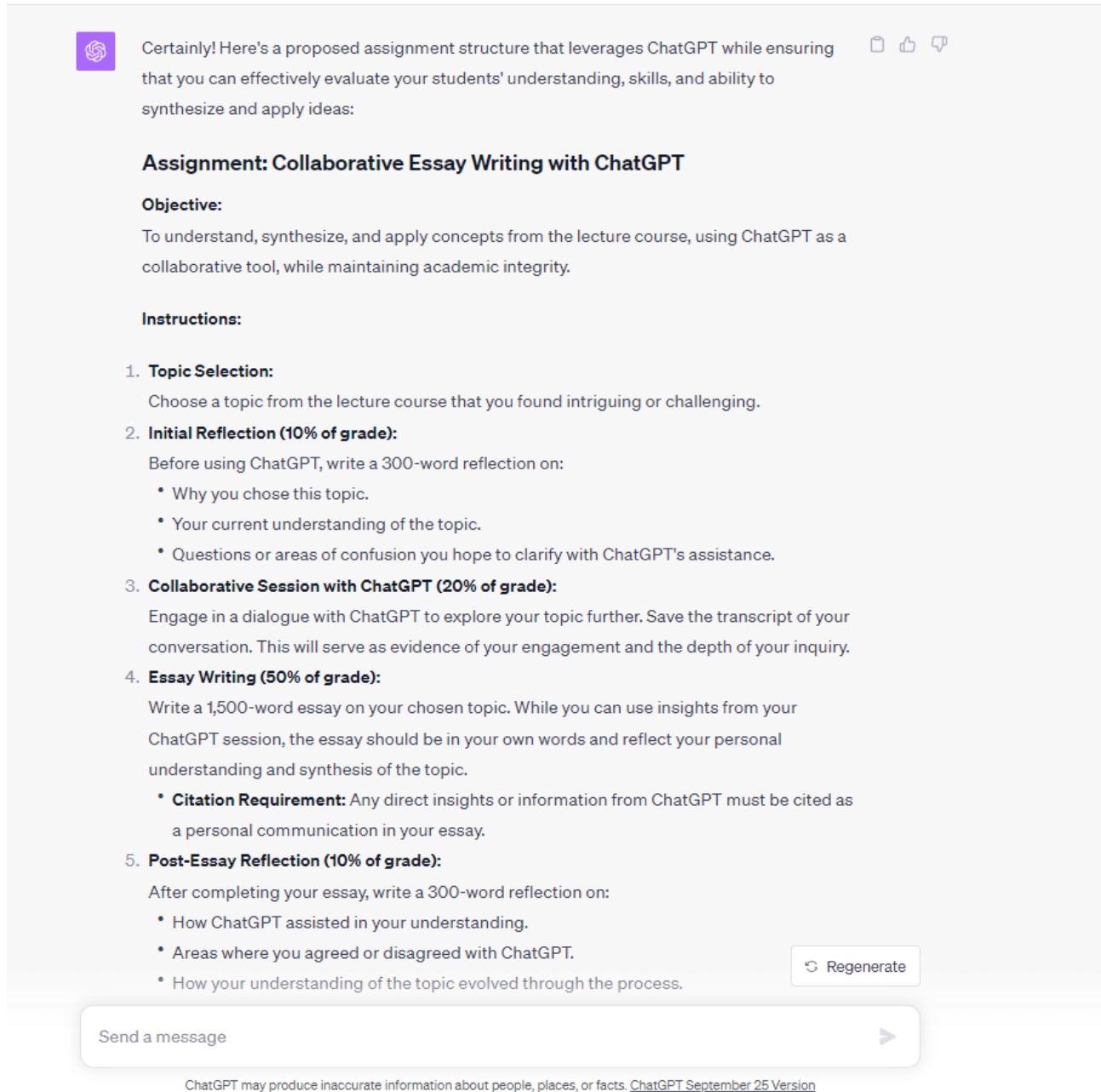
What about alternative assessment methods such as traditional invigilated written exams or orals tests? These alternative presents several challenges that can compromise fairness and authenticity. For instance, second-language (L2) students might

grapple with language barriers, where their comprehension and articulation might not mirror their actual knowledge, placing them at an undue disadvantage. Neurodiverse students and those with specific learning disabilities (SLD) also face unique challenges in these examination formats. Moreover, the high-pressure environment of timed exams can amplify anxiety, particularly for those with pre-existing mental health conditions, potentially skewing their performance. Such traditional exams often prioritise rote recall over practical application, failing to simulate real-world scenarios where individuals typically have resource access and decision-making time. Somewhat ironically, this encourages and rewards LLM-type responses that

regurgitate information rather than demonstrating understanding through application or evaluation (higher cognitive skills). Furthermore, these exams offer a mere snapshot of a student's capabilities, potentially overlooking the comprehensive understanding and skills cultivated throughout a course. In contrast, coursework essays provide a platform for students to showcase

in-depth knowledge, research acumen, and critical thinking over a more extended duration.

While alternative assessment methods have their merits, it's crucial to consider the diverse needs of all students. Equity in assessment ensures that every student has a fair opportunity to demonstrate their knowledge and skills. It's essential to provide



Certainly! Here's a proposed assignment structure that leverages ChatGPT while ensuring that you can effectively evaluate your students' understanding, skills, and ability to synthesize and apply ideas:

Assignment: Collaborative Essay Writing with ChatGPT

Objective:
To understand, synthesize, and apply concepts from the lecture course, using ChatGPT as a collaborative tool, while maintaining academic integrity.

Instructions:

- 1. Topic Selection:**
Choose a topic from the lecture course that you found intriguing or challenging.
- 2. Initial Reflection (10% of grade):**
Before using ChatGPT, write a 300-word reflection on:
 - Why you chose this topic.
 - Your current understanding of the topic.
 - Questions or areas of confusion you hope to clarify with ChatGPT's assistance.
- 3. Collaborative Session with ChatGPT (20% of grade):**
Engage in a dialogue with ChatGPT to explore your topic further. Save the transcript of your conversation. This will serve as evidence of your engagement and the depth of your inquiry.
- 4. Essay Writing (50% of grade):**
Write a 1,500-word essay on your chosen topic. While you can use insights from your ChatGPT session, the essay should be in your own words and reflect your personal understanding and synthesis of the topic.
 - **Citation Requirement:** Any direct insights or information from ChatGPT must be cited as a personal communication in your essay.
- 5. Post-Essay Reflection (10% of grade):**
After completing your essay, write a 300-word reflection on:
 - How ChatGPT assisted in your understanding.
 - Areas where you agreed or disagreed with ChatGPT.
 - How your understanding of the topic evolved through the process.

Send a message ↩ Regenerate

ChatGPT may produce inaccurate information about people, places, or facts. [ChatGPT September 25 Version](#)

Figure 4. ChatGPT response to prompt: “create an assignment that enabled students to employ ChatGPT to assist in writing their university essays in a way that means I (as a lecturer) can still effectively evaluate the student’s understanding, skills, and ability to synthesise and apply the ideas taught across the lecture course (rather than the “knowledge” and abilities of ChatGPT).”

accommodations and consider multiple assessment methods to capture the holistic development of students.

Another question would be whether we still need essays in an age of AI generated responses, LLMs, and other tools that have far greater access to information and are far more articulate than most of us? Is this like teaching penmanship when everyone has a keyboard, or more aptly, speech-to-text devices?

This risks throwing the baby out with the bathwater: Essay writing transcends mere information conveyance; it's a multifaceted cognitive exercise that hones skills like thought organisation, argument structuring, and coherent articulation. Engaging in this process cultivates advanced cognitive abilities, such as critical analysis, synthesis, and evaluative thinking. These skills are indispensable, extending beyond academia to professional and daily life contexts. Additionally, essay composition refines vital soft skills. The iterative process of drafting and revising instils values like patience, perseverance, and effective time management. While AI and LLMs can produce vast amounts of content, they lack the capacity for genuine originality and personal voice. Essays serve as platforms for students to express their unique viewpoints, creativity, and insights, attributes that remain irreplaceable in diverse settings. Furthermore, essay crafting necessitates rigorous research, teaching students to differentiate between credible and dubious sources. In today's era, where misinformation is rampant, this discernment is invaluable and widely applicable across various fields, from journalism to business.

Upon further discussion, ChatGPT recommended the following revision and reformatting of essay writing assignment in my HTC course, breaking the essay down into 6-steps with 5 graded components that recognised and rewarded process and reflection as well as the product – completed essay – itself. These components consisted of the following: initial reflection (10%), transcript of a collaborative ChatGPT session (20%), written essay (50%), post-essay reflection (10%) and peer-review (10%).

The Chat explained that this assignment reframing was structured to “encourage students to engage with ChatGPT as a tool for exploration and clarification, rather than as a crutch for essay writing. The reflections and peer review components ensure that students are critically engaging with the material and their own understanding.”

I'm intrigued by certain aspects for future HTC course integration that further promote metacognition and collaborative learning, notably the peer-review and post-essay reflection. However, challenges remain: a 1500-word essay doesn't effectively lead to a 10,000-word thesis, and concerns about authorship and plagiarism with a 50% essay component are unresolved. Addressing these might need a detailed marking rubric, demanding extra time and effort.

FROM PROHIBITION TO INTEGRATION:

Within four months of announcing a prohibition on LLMs and ChatGPT across NYC schools, the Department of Education rescinded the ban. This about-face signalled more than just a policy shift; it marked a foray into an explorative stance, seeking to fathom and harness AI's potential in augmenting administrative efficacy, communication, and pedagogic strategies, and epitomises the dynamic dialogue between AI progressions and educational policy frameworks.

This move was mirrored by Australia whose education ministers announced earlier this month that by 2024, all Australian schools will permit the use of AI, including ChatGPT. The statement follows the endorsement of a national framework which aims to guide the technology's use in education.

This is consistent with the observations and recommendations from the Tertiary Education Quality and Standards Agency (TEQSA) last month (September 2023), who recognised that ignoring or banning LLMs (or generative AI) were no longer viable options.

So what does this require: what does it mean to adapt our approaches to assessment? What might this look like?

RECOMMENDATIONS:

Effective essay writing remains vital, and the rise of LLMs like ChatGPT shouldn't overshadow this. Instead, we need to adapt our assessment methods to evaluate students authentically, not the LLM. This requires a major assessment overhaul and continuous updates, given the rapid tech advancements. Regular reviews will ensure our assessment methods remain relevant and address emerging challenges. This may well sound like a Sisyphean task, but it's also just good pedagogy: it's better for the students learning and the educators teaching.

Institutional risk requires an institutional leadership and a credible action plan to point the way and provide resources to meet the legislative requirements and responsibilities to ensure students have met the Learning Outcomes. Asking tutors to do things they've not done before and rethink their teaching in a fundamental way requires investment in professional development. The additional time implications need to be recognised within the institution, and resources and support are as integral for the tutor as they are for the student.

In the words of Matthew Bishop (editor of *The Economist*): “In the rest of our lifetimes the pace of change will never again be as slow as it is today”

ENDNOTES

1. OpenAI even announced the creation of their own LLM text-generated detector tool (aptly named OpenAI AI Text Classifier), which grappled with accuracy issues from the outset, managing to correctly identify merely 26% of AI-written text, while mislabelling human-authored text about 9% of the time. Moreover, the classifier could easily be sidestepped by modifying some words in the AI-generated text, thus failing to serve as a robust deterrent against misuse. Other generative-text-detection tools have fared little better and are outnumbered and outpaced by the various AI-tools being created for the sole purpose of rephrasing text so that it eludes detection (like Quilbot)