

# (Re)considering Writing Pedagogy in the Wake of AI

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## Abstract

*A student-centered, metacognitive, process-oriented approach to AI Writing. For teachers, scholars have argued that ChatGPT can assist in developing lessons, assignments, assessments, and other course materials. By generating and refining content, ChatGPT can free teachers' time from repetitive tasks and allow them to focus on higher-level instructional strategies.*

## Introduction

ChatGPT is a powerful Large Language Model (LLM) developed by OpenAI that utilizes natural language processing to have human-like conversations and assist with tasks, such as composing text (Siegle, 2023). Since its public release in late 2022, ChatGPT has sparked intense debate regarding its potential impact on education, with some hailing it as an innovative tool and others viewing it as a threat to academic integrity (Rudolph et al., 2023; Siegle, 2023). Within just days of launch, over 1 million users had experimented with ChatGPT, demonstrating its extraordinarily rapid adoption (Siegle, 2023). The capabilities of ChatGPT have prompted a range of reactions in terms of its classroom applications. Policies range from bans on district devices to actively integrating ChatGPT into lessons with clear ethical guidelines (Halaweh, 2023; Siegle, 2023). As this disruptive technology becomes increasingly ubiquitous, educators face challenging questions regarding if and how to implement ChatGPT to enhance, rather than hinder, student learning outcomes. The classroom integration of ChatGPT remains a complex issue entangled with concerns over plagiarism, privacy, and the changing nature of writing and assessment. It is a disruption that we all have to contend with. If we are interested in the potential of learning to transform our students' lives, we must be able to transform ourselves.

I argue that this technological disruption has invited us—compelled us—to think paradigmatically to stay afloat. Here I evoke Kuhn's *Structure of Scientific Revolutions* (1996): There is a pattern to the shifts in our understanding of the nature of the world. It is worth realizing that the “old ways” never really were static. This is true for most disciplines and certainly true in writing studies. It might be useful, then, to weave a thread through a selected history of how we developed our understanding of what it means to teach writing, paradigm by paradigm. By exploring these debates and tracing shifts in pedagogical values, we might then be able to fully consider the contours of the paradigm struggle we currently find ourselves within in light of the onset of ChatGPT and other LLM tools.

## Shifting Paradigms

We begin with “current-traditionalism,” the stasis of assumptions about what teaching should look like and how writing should be taught. In current-traditional writing pedagogy, the focus is on the *product* and not the *process* of writing. Prewriting exercises are employed only through the creation of outlines that form the unchanging skeleton of the final piece. The things they write do not change through meditation, development, or context. This approach has certainly found critics: In *Pedagogy of the Oppressed*, Paulo Freire describes current-traditionalism as an “essayistic literacy” that relies on a standardized, one-size-fits-all concept of education (Freire, 1970, p. 72). Freire traces how the assumptions of the dominant pedagogical paradigm fail not only to educate but function to reinforce

power inequities: education becomes an “instrument of oppression.” This, Freire argues, is by design: the holders of this paradigm have no desire to subvert it and the power it offers: “The capability of [this form of] education to minimize or annul the students’ creative power and to stimulate their credulity serves the interests of the oppressors, who care neither to have the world revealed nor to see it transformed” (Freire, 72). Davidson and Goldberg (2010) argue that we have to reconsider the traditional prioritization of “individualized performance in assessments and reward structures,” which serve only to “wade down and impede new learning possibilities” (p. 52). If we do not heed the call for change, we “continue to push old, uniform, and increasingly outdated educational products on young learners at their—and, by implication, society’s—peril” (Davidson & Goldberg, 2010, p. 24). More recently, Naghdipour (2021) argues that the current-traditional prioritization of rigid structure and grammar-drills impedes the development of higher-order writing tasks or “real-life workplace communication” (p. 2). Still, it should be made clear that current-traditional rhetoric is not a single, encapsulable position. Robert Connors (1981) argues that current-traditional rhetoric is a force, a “palimpsest of theories and assumptions stretching back to classical antiquity” (p. 208), which carry with them both pedagogical potential and risk. It will never “wither away” or be overthrown. It must be “supplemented,” because it will never be “supplanted” (Connors, 1981, p. 219-220). Myhill et al. (2018), for instance, find evidence that “a functionally oriented approach to grammar, meaningfully embedded within the teaching of writing, can secure growth in writing.”

An early antithesis to current-traditional pedagogy was “process pedagogy.” The process-oriented approach to composition pedagogy emerged as a response to the limitations of product-oriented approaches, which focused primarily on grammar, mechanics, and the final written product (Peary & Hunley, 2015, p. 34). Process pedagogy emphasizes the development of students’ writing skills and strategies as well as their ability to think critically and reflect on their writing processes. In process pedagogy, the focus is on the student’s “real,” “authentic” voice, which comes to be known through an extended and deep process of prewriting, freewriting, reflection, and revision. Found under the umbrella of process pedagogy is “expressivism,” the value of discovering one’s “expressive” voice. Expressivism values the unique voice and creativity of the writer and sees writing as a means of self-discovery and self-expression (Pierre, 2014, p. 375). It emphasizes the personal and subjective aspects of writing, encouraging students to tap into their own thoughts, feelings, and experiences when composing texts (Elbow, 1998). However, in later decades, critics have argued that an exclusive focus on personal expression may neglect important aspects of writing, such as rhetorical awareness, audience considerations, and the social and cultural contexts in which writing occurs (Scarborough & Allen, 2014). Post-process theorists argued that expressivism offered no content; a student could think and reflect all they wanted, but without research, communication, and interaction with real societal conversations, the student will not develop or contribute meaningfully with their writing.

A branch of these criticisms later helped form a writing pedagogy that endeavored to expand the writing process beyond the limited scope of the writing classroom. Writing Across the Curriculum (WAC) is a pedagogy movement that emerged in the 1970s to address writing skills in higher education (Bazerman & Russell, 2020, p. 12). WAC advocates for the integration of writing instruction and practice as a study of genre across all academic disciplines, rather than confining writing instruction to English or composition courses (Wardani et al., 2021). By teaching the genres of different field expectations, students practice multiple forms of authorship and learn to contextualize them in conversations with one another without privileging one form of discourse as “right.” Doing so situates students in an active process of rhetorical negotiation through specialized and even contradictory procedures in a pedagogy that endeavors to function not like the traditional educational apparatus but like the modern workplace (McLeod & Soven, 1992, p. 165).

The rise of computers and the networked age brought about new conceptions of text, communication, and education. In 1996, The New London Group put forward a “pedagogy of multiliteracies” (Cazden et al., 1996, p. 63) that would mark the exigency and foundational values of new compositional approaches for decades. The New London Group called for education that helps students participate fully in the multimodal and networked forms of “public, community, and economic life”

(Cazden et al., 1996, p. 60). In light of this, the rise of 21<sup>st</sup> Century Digital Literacies recognizes that literacy is no longer limited to reading and writing, but also includes the ability to navigate and critically engage with various forms of digital and multimodal texts (Bell, 2019). Digital literacies encompass the skills, knowledge, and attitudes necessary to engage effectively with digital technologies and information in various contexts. They go beyond technical skills to include critical thinking, information literacy, media literacy, and ethical considerations. Students are encouraged to explore and utilize various digital tools and platforms to compose texts that incorporate multiple modes such as text, images, audio, and video (Smith et al., 2020). Digital tools and platforms enable students to collaborate and co-create written texts in real time, regardless of geographical boundaries (Akoto, 2021). The pedagogy of digital multiliteracies emphasizes the synergy of multiple modes and communicative expression (Wargo, 2018).

Having traced these threads, I will explore how LLM technologies, such as ChatGPT, might interplay with these pedagogies, but first I will return briefly to Tobin. In explicating the movement from process to post-process, Tobin (2001) warns about the dangers of encapsulation (p. 15). Indeed, most of the scholars explored in this chapter would be, and in some cases, explicitly were, uncomfortable with being lumped into a single pedagogical position. The writing process is varied, vast, and complex, and an effective teaching process should be even more so. Tobin writes, in fact, that as a teacher he pulls this and that from multiple sources all across the “timeline” of composition:

In most respects, I still remain clearly committed to a process design: I allow students to choose most of their own topics and forms and to work on essays for long periods of time punctuated by frequent feedback and revision. And I devote most class time to workshops, group work, writing activities, and discussions of invention and revision strategies. But I am no longer as rigid or as pure about teaching by not teaching. I have gone back to my earliest days by reinserting some of my old minilessons on how to identify your audience, how to establish a credible ethos, how to cite sources, and even how to write a five-paragraph-essay . . . at the same time, I find myself borrowing post-process language and methods to help students see how text and writers and readers are always and inevitably embedded in multiple contexts and cultures. (Tobin, 2001, p. 16)

Here, I agree. I argue that a teacher should be a *bricoleur*, weaving a tapestry of important pedagogical ideas and teaching what is found to be important and revelatory while keeping in mind the cautions and limitations of each system. The stage is now set to explore ChatGPT as the precipice for yet another writing paradigm. First, I provide an overview of how others have explored and conceptualized the potential role of ChatGPT in education. Once we have a sense of this thread, we can see how we might weave it into this “bricoleurean” pedagogy.

### **ChatGPT in The Classroom: The Research**

For teachers, scholars have argued that ChatGPT can assist in developing lessons, assignments, assessments, and other course materials. By generating and refining content, ChatGPT can free teachers' time from repetitive tasks and allow them to focus on higher-level instructional strategies. Several authors have highlighted the productivity benefits of using ChatGPT to support content creation for educators (Azaria et al., 2023; Mogavi et al., 2023; Rudolph et al., 2023). As Mogavi et al. explain, "Educators, students, and researchers have used ChatGPT to write and proofread research papers, prepare lecture notes, create class presentation slides, and compose literature reviews" (2023, pp. 18–19). In my own experiments with the tool, I have found that when paired with my own pedagogical instincts, it is quite good at producing discussion questions from class readings or other materials. It can summarize, produce talking points, suggest approaches, or build outlines. It has been able to inspire a day's plan or lesson, flesh out an assignment prompt or rubric for me, or otherwise give me more material I can bring to my classroom.

For students, scholars have explored how ChatGPT can provide individualized learning paths tailored to each student's needs, interests, and pace. This type of personalized instruction has been shown to increase student motivation and promote mastery of the material. Mogavi et al. (2023) describe how ChatGPT was used in an educational math game to adapt explanations and feedback specifically for one

student's learning style (p. 22). This dynamic scaffolding helped students to stay engaged and develop problem-solving skills. Serving as an always available virtual tutor, ChatGPT can provide on-demand explanations, answers, and guidance to students' questions anytime and anywhere. Rather than waiting for the next class or office hours, students can query ChatGPT and receive immediate personalized support. This provides continuity between classes and supplements teacher availability, as discussed by Azaria et al. (2023), Mogavi et al. (2023), and Qadir (2022).<sup>1</sup>

Given the potential of these educational approaches, it is not surprising that mine is not the only voice here that conceptualizes this technology as an opportunity, if not an impetus, to think about this tool paradigmatically. Authors call for corresponding policy and pedagogical changes in education, and updated policies should address the appropriate classroom uses of ChatGPT, according to Chan & Hu (2023), Mogavi et al. (2023), and Qadir (2022). The authors suggest that rather than rote information retrieval, learning goals should focus on creativity, critical thinking, and the collaborative use of Artificial Intelligence (AI) technology. Fayyad (2023) echoes the sentiment that traditional memorization methods are outdated. Instead, the focus should be on fostering creative thinking and integrating information. For individuals to effectively leverage these tools and add value, a modern skill set tailored to our evolving society is necessary (p. 4). Consequently, curricula and assessments may need to be redesigned for an AI-integrated education model, as noted by Chan & Hu (2023) and Rudolph et al. (2023). Kasneci et al. (2023) and Mogavi et al. (2023) recommend teacher training on best practices for incorporating ChatGPT while retaining creative pedagogy. Halaweh (2023) predicts that ChatGPT is poised to transform the field of writing in a manner similar to the transformative influence of calculators and computers on mathematics (p. 2). He argues for a shift in universities' approach towards AI adoption in education, learning, and assessment, suggesting that they should be proactive rather than reactive, and encourages a full revamp of their perspectives on education (p. 3-4). Milano et al. (2023) agree that adjusting and accepting LLMs might be the only lasting approach, mirroring the sentiments from their journal editorial and the International Baccalaureate's recent changes to their qualifications (p. 333).

What do we do with this in the classroom, then? Rather than attempting an entirely new paradigm in light of this technology, we must seek to understand it, and then, using that understanding, weave it through the tapestry of our own long-developed pedagogical frameworks.

### Understanding ChatGPT

First, it should be recognized that aversion to ChatGPT in the classroom often stems from a misunderstanding of what a LLM such as ChatGPT really is. Characterized as an “Artificial Intelligence,” teachers and students alike are primed to see ChatGPT as a thinking entity, a brain that can do the work for them. This prompts teachers to attempt to implement widespread bans that only serve to characterize the tool as a ‘forbidden holder of all answers,’ and prompts students to approach the tool as a crutch, lazily, and uncritically. Researchers have noticed this: Kasneci et al. (2023) warn, “Learners may rely too heavily on the model. The effortlessly generated information could negatively impact their critical thinking and problem-solving skills” (p. 7). Thus, the education of both teachers and students on LLM tools is essential if we aim to create a space for careful, critical, and transparent interaction with the technology. ChatGPT is not actually *thinking*. It generates language based on the linguistic patterns that it has detected across all of its training data. In repeating the language algorithms found across the wide array of discourses it has scraped across the Internet, it may often output information, but will not know what that information is. It simply repeats word patterns, and does not actually know what this information means or if it is true. Indeed, for this reason, authors warn against depending on ChatGPT alone for information without verification (Azaria et al., 2023; Fayyad, 2023; Kasneci et al., 2023; Mogavi et al., 2023; Qadir, 2022). ChatGPT is thus more usefully thought of not as an intelligence—artificial or otherwise—but as an algorithmic language tool, a tool to play with the ways that words often

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<sup>1</sup> Here, however, I would warn that LLM output can be inaccurate. My vision of pedagogical exploration of this technology, which I detail below, involves a critically mediated and supplemental approach.

connect across varying discourses. This is suggested in the conclusion of Ian Bogost's (2022) essay, "ChatGPT is Dumber Than You Think":

GPT and other large language models are aesthetic instruments rather than epistemological ones. Imagine a weird, unholy synthesizer whose buttons sample textual information, style, and semantics. Such a thing is compelling not because it offers answers in the form of text, but because it makes it possible to play text—all the text, almost—like an instrument.

ChatGPT is best thought of as a language "synthesizer," a way to explore the different ways one might think through their own ideas, research, and rhetorical intentionality. In doing so, we create a framework for ChatGPT not as a cheating tool but as a way to further think about and work with language. Students should be led to this conclusion by showing them that the writing that the tool produces, when created without a heavy and thoughtful rhetorical hand by the student, is generic, general, surface-level, predictable, and prone to hallucinations/inaccuracies. This can be the topic of classroom discussion, hands-on collaborative testing, or the practice of critical evaluation. The goal is to understand that the tool is not thinking, so if they want thoughtful work, they will have to provide the thinking themselves. I acknowledge that this approach may not be entirely future-proof, and that we are placing trust in some things that are beyond our control with regard to our students, specifically the intrinsic motivation needed to claim ownership of their evolving authorial voice and process. But I've found this lesson and hands-on activity to help, and I think it will stay useful even if/when the quality of the writing that the technology can produce by itself improves. To get students to value their own rhetorical sovereignty, to grapple with what it means to produce *good* writing with and without the tool, is to push them in the right directions, where the 'blanket ban' approach does not.

### **Weaving The Threads**

If ChatGPT is correctly approached as no more and no less than a language synthesis tool/play-space, it can speak to, supplement, or be part of elements from all of the paradigms explored here. From current-traditionalism, we have the call for structure, rules, steps, and the consideration of grammatical rules and conventions. LLM tools such as ChatGPT can help with this. With algorithms forged in thousands of examples of structured academic prose, we can ask an LLM to offer examples of sentence and paragraph revisions, or recite any structural, grammatical, or genre-dependent rules, conventions, or definitions. Rahman and Watanobe (2023) explain that LLMs can "provide suggestions (e.g., syntactic and grammatical)" (p. 5) to assist with writing conventions. I take this idea and extend it: the LLM can delve into these rules and definitions as far as a student would like in order to extend understanding. LLMs can be asked for their reasoning. In follow-up prompts, one can ask, 'Why was the sentence revised this way? What is the impact? How does this change help the writing conform to one convention or the other?' When we ask an LLM to explain a grammar rule, students who do not fully understand can drill further, ask follow-up questions, ask the LLM to break the explanation down more, or ask for more examples of the rule in application. What we keep from this paradigm is the discourse knowledge of important conventions and rules that empowers us to write within and for the genres and discourses that demand it. What we change in this paradigm is that we give these rules to the students; we enable each student to engage in discussion about the rule, understand it, see it in action, and consider its rhetorical value.

From expressivism, we find value in copious and free exploratory writing. We let the student's writing wander about the page; at this stage unconcerned with grammar and structure: we want to let the student explore, find their voice, and unpack ideas. We see writing as thinking, and value the act of generation to create spaces for that exploratory work. If we hone in on the concept of 'generation,' LLMs can be immediate boons here. LLMs can be asked to produce unlimited amounts of writing. Students can ask LLMs to explore any range of topics and get a sense of what the general discourses have been saying. This might be akin to searching social media or Wikipedia about a topic as a cursory activity to get a sense of the conversations. But this goes further as LLMs react to student queries and follow-up

questions. LLMs can engage in dialogue with students: through the back and forth, ideas may be formed, honed, tested, and challenged. Through this back and forth, the student might be inspired by a certain argument, connection, or take. I'll state again here that, yes, a LLM only algorithmically predicts the next word from a giant library of language, but that does not preclude the LLM from producing novel constructions: LLMs, by their nature, are excellent at knitting words, sentences, ideas, or even genres together in potentially brand-new ways. When we ask LLMs to take on certain writing tasks informed by a range of personas—write as a doctor, a poet, a professor; moods—write melancholically, excitedly, angrily, argumentatively; genres—write as a poem, write as a proposal, write as a memo, write as a sonnet; we might get any range of potentially inspiring output. If the purpose of expressivist teaching is to generate, explore, and see where we end up, LLMs are more than capable tools to supplement this process.

From post-process theory, we engage in the study and practice of writing to, within, along, and across a range of discourses and genres, as well as learning to understand and navigate the socially constructed knowledge that forms the languages, methods, values, and procedures of the community. Here, too, LLMs can help us with their algorithmic knowledge of language across genre and discourse. If post-process pedagogy was enacted as a backlash to expressivism's aggressive internalization, LLMs can help us externalize and connect our thinking, writing, and process. We can ask LLMs to help explain to us the differences in language, discourse, and genre conventions across communities. We can ask LLMs to speculate on examples of how one rhetorical act might be executed according to the expectations of one discourse or another. We can ask for a range of examples for most genres and ask the LLM to break down and explain why and how the writing works in that discourse's light. Similarly, WAC pedagogy asks that we think outside of the boundaries of the writing classroom and consider communicative acts across audiences, genres, discourse, and class subjects. An LLM can be made to translate language from one discourse to another; stitch and weave ideas, conventions, and elements of varying conventions together; respond to ideas from the viewpoint or light of a discourse or a blend of discourses; and unpack its choices and reveal its reasoning, all of which could be excellent fodder for the students to analyze, evaluate, and rhetorically consider.

I want to stress here that the way I have talked about the use of LLM technology in the classroom has been very deliberate. LLMs can be very useful as supplements but not as replacements. In this approach, both an LLM's strengths and weaknesses are valuable in our classroom: that which it does well it can explain and exemplify, and that which it does poorly can be fodder for a range of evaluative and critical classroom activities. What functions as a bug in the technology becomes a feature when critically addressed in the classroom. The key here is that interaction with the LLM must be brought into the light: students should practice reflection and metacognition as they work with the technology by engaging with it live in collaborative group projects, record and document the back-and-forth of their conversations with the tool, and engage in copious journaling where they record their prompts, results, and rhetorical reflection and evaluation at play while considering both the input and the output.

Finally, we weave our LLM thread through the pedagogies of 21<sup>st</sup> century literacies. Here the match is at its most intuitive. This paradigm sounds a call to embrace the shifted values of a technologically influenced and mediated society. By learning how to productively, ethically, and transparently work with the LLM, we teach our students to interface critically with digital writing and digital technologies. When we guide our students to explore how the tool can bring ideas, examples, and language to the table alongside the theory and practice of the tool's strengths, limitations, and risks, we set up our students with tremendous advantages as they continue their education and careers in an increasingly digitally mediated professional work environment.

### **Becoming Bricoleurs**

I believe our highest ideals as writing teachers are emancipatory and transformative. Our goal is to teach our students to write, and in doing so, we teach them to navigate, assess, read, analyze, and critically evaluate the forces that structure and run the discourses within the world. Here, we teach our students new perspectives: we invite our students to understand not just the expectations of the genres and

discourses they are writing for and within, but also what purposes those conventions rhetorically and discursively serve. So too we can—and we should—transform our students’ understanding and perspectives of LLM technology, both through hands-on use and experimentation with the tool directly to help us interrogate these genres, conversations, and discourses, and as the subject itself of deep and critical classroom discussion. These tools will continue to grow in ubiquity and power, and are being widely used (Siegle, 2023). However, if our students gain practical, critical, and ethical experience with the tool in their classrooms, they will carry these approaches out into the world.

It is a strange, dynamic, and challenging time for teachers. It is a time that demands transformation, both of us and our pedagogies, and of the students who must learn how to develop, think, work, and write within a fast-transforming world. I have proposed viewing ChatGPT through a paradigmatic lens as the latest development inviting us to reconsider assumptions about writing and learning. Tracing key paradigms in composition history illustrates the field's continual evolution to match changing technologies, discourses, and values. Current-traditionalism, process pedagogy, expressivism, post-process theory, collaborative writing, multiliteracies, and 21<sup>st</sup> century digital pedagogy each foreground different priorities. A bricoleur teacher can weave the most effective elements together. ChatGPT aligns with yet redirects aspects of prior paradigms. It necessitates upholding humanistic educational values while harnessing AI's potential. My framework suggests integrating ChatGPT as a supplemental tool for personalized learning, discourse immersion, genre exploration, and critical reflection. This interaction fosters metacognition and ethical technological literacy vital for their futures. As new paradigms continually emerge, teachers must analyze their implications for writing studies and strategically determine how to weave each thread into an ever-evolving pedagogical tapestry.

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