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How Fears of AI in the Classroom Reflect Anxieties about Choosing Sophistry over True Knowledge in the American Education System

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Abstract

The rise of ChatGPT has educators across the United States of America worried about scholastic integrity like never before. This paper argues, however, that underneath this initial concern lies an even greater one, that the education system in the United States so closely resembles the style of teaching used by the sophists in Ancient Greece that it has ultimately failed to cultivate critical thinking skills in America’s youth, so much so that ChatGPT has become a far greater issue than it ever needed to be. The practice of ‘teaching to the test’ and the commodification of education, which is akin to the sophists’ custom of instructing the youth of Athens on how to win debates rather than seek true knowledge and charging a high price to do so, has created an education system where true knowledge is no longer the goal. Thus, the real worry about ChatGPT lies not in students circumventing the processes of knowledge, but in educators being forced to recognize the failure to foster such a process in the first place.

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ChatGPT, which is able to mimic human responses to a given prompt with surprising accuracy, has raised a lot of controversy since its debut in November 2022. While initial versions produced worries about academic dishonesty, the newest version, ChatGPT-4, amplifies these worries since it does even better “on human tests, including the Uniform Bar Exam (where GPT-4 ranks in the 90th percentile and ChatGPT ranks in the 10th).”\(^1\) Instructors must now worry about whether the assignments they are receiving are unique to the student, or if they have been created by this online tool. However, this surface-level worry masks an even larger concern – that, in its decision to focus on product over process, the United States educational system has adopted an approach to teaching reflective of the sophists of Ancient Greece, thereby fundamentally failing students and violating its ethical imperative to foster a capable, educated citizenry. This can be tied to the commodification of education and the practice of ‘teaching to the test’, which mimics the sophistic practices of charging for education and teaching how to win in a system that rewards assessable, transferrable, and recognizable forms of knowledge, rather than how to think broadly and critically. Thus, the true worry about ChatGPT lies not in students circumventing the processes of knowledge, but in educators being forced to recognize the failure to foster such a process in the first place. There is hope; a look back at the debates within classical rhetoric can help create a fundamental overhaul of the current education system that places primacy on knowledge-building rather than rote memorization.

ChatGPT is the latest and most powerful chatbot, i.e., “a computer program that simulates human conversation.”\(^2\) Much of the development of chatbot technology has been focused on how it can handle mundane tasks like routine customer service calls. ChatGPT, however, has gone beyond simply mimicking rudimentary dialogue; its latest iteration, ChatGPT-4, which was released in March 2023 by OpenAI, is able to analyze both text and language with significantly better skills than previous chatbots, “outperform[ing] ChatGPT on human tests, including the Uniform Bar Exam (where GPT-4 ranks in the 90th percentile and ChatGPT ranks in the 10th) and the Biology Olympiad (where GPT-4 ranks in the 99th percentile and ChatGPT ranks in the 31st).”\(^3\) While these sorts of innovations are very exciting, they raise serious concerns for educators. The fact that ChatGPT has been able to pass a wide variety of standardized tests, including the SATs, GRE, several AP exams, and even the Advanced Sommelier test\(^4\) has raised important concerns for


\(^3\) Heaven, “GPT-4 Is Bigger”

educators because of its potential use in academic dishonesty. This concern is exacerbated by the fact that COVID-19 has made online schooling much more pervasive; those teaching online can no longer administer exams while in the same room as students, meaning they cannot serve as a watchful eye to ensure academic honesty. As such, schools and instructors across the country are scrambling to find ways to maintain academic rigor and honesty in a world where robots seem to be indistinguishable from humans, at least on paper. The question becomes, what do these concerns say about the current education system here in the United States of America? How have we gotten to a point where programs that work primarily on rote memorization, information collation, and regurgitation are able to successfully pass some of our most well-known and respected tests?

Standardized testing is nothing new in America; according to the National Education Association, standardized testing has a long, complicated history dating back to at least 1900. In fact, John Dewey, famous as both a philosopher and educator, was already expressing concerns with standardized testing in 1922 when he said “[o]ur mechanical, industrialized civilization is concerned with averages, with percents. The mental habit which reflects this social scene subordinates education and

social arrangements based on averaged gross inferiorities and superiorities”;⁵ Dewey already saw the potential issues with trying to standardize education by emphasizing quantitative tests at the expense of true critical thinking. However, despite these early concerns, America continued its trajectory toward nationwide standardized testing. In 1929, “[t]he University of Iowa initiates the first major statewide testing program for high school students, directed by E.F. Lindquist. By 1930 multiple-choice tests are firmly entrenched in the schools”;⁶ while initially specific to the state of Iowa, several other states began to use this test as a method of assessing student achievement. The No Child Left Behind Act, which required standardized testing across the nation “in grades 3 through 8 and once in high school,”⁷ made such tests ubiquitous within American schools, requiring that they make ‘adequate yearly progress’ or face repercussions that can lead “[s]tates ... to shut these schools down, turn them into charter schools, take them over, or use another, significant turnaround strategy.”⁸ As such, schools and teachers are under a lot of pressure to ensure that their students pass these tests.

While advocates for standardized testing and the No Child Left Behind approach claim that this method keeps schools objectively accountable and can help to close

⁸ Klein, “No Child Left Behind.”
gaps between low and high achieving schools, this has come under an increasing amount of scrutiny in recent years. One of the biggest criticisms of standardized testing is that it makes it much more likely that schools and teachers will simply ‘teach to the test,’ i.e., focus on having students memorize key points of information that will help them pass these tests. The immediate thought is that this is a good thing; if these tests are objective measures of skills and students are being taught these skills to the point of passing them, then the process is working. However, this is not as straightforward as it may seem. Often while teaching to the test, instructors emphasize rote memorization rather than deep learning. In other words, students are pushed to memorize information to the extent that it will help them pass these tests without truly internalizing it. Even skeptics like Richard Phelps, who argues that the phrase ‘teaching to the test’ has become a red herring in arguments against standardized testing, still admits that “[t]he No Child Left Behind Act of 2001, for example, implicitly encourages educators to reallocate classroom time, because it requires testing in only reading and math (in seven grades) and science (in three);”⁹ such practices take the emphasis away from providing a well-rounded education meant to get students to internalize concepts and use them critically, and instead focuses on the bottom line: achieving proficient test scores. The process of emphasizing success in such a specific way has led to objections that it is “forcing schools to spend less time on subjects that aren’t explicitly tested, like social studies, foreign language, and the arts”;¹⁰ Karen D'Souza points that in California, “[o]nce considered a cornerstone of any comprehensive education, the arts have long been scrubbed in California classrooms in favor of math and science;”¹¹ two subjects that are regularly tested. Although the focus in this paper is on the public K-12 education system, similar trends can be seen in higher education as well, with schools like Marymount University “moving to eliminate several humanities majors, including theology and philosophy”;¹² and others like Howard University dissolving their classics department despite protests from scholars like Cornell West.¹³ Although not directly tied to the implementation of standardized testing via NCLB, these cuts reflect a general trend in education, one where those majors that do not immediately and quantitatively produce results, which in higher ed translates to immediately viable employment and assessable earning potential, are dispensable.

¹⁰ Klein, “No Child Left Behind.”
A second, albeit related practice that standardized testing has instigated in the American education system is that of commodifying education. In addition to the punishments listed above for schools whose students do not pass standardized testing, rewards have been offered in various formats for those teachers and administrators whose students do pass tests. One of the most recent methods of doing so is through “[m]erit pay programs for educators — sometimes referred to as “pay for performance” — [which] attempt to tie a teacher’s compensation to his/her performance in the classroom”;¹⁴ these programs are being used more frequently to try and help compensate teachers who successfully contribute to increased student success. There are various criteria for how teachers are compensated and these differ depending on which school district one is in. While such programs are developed with good intentions (after all, why shouldn’t we pay good teachers more money?), their effectiveness is still up for debate, and the connection to standardized testing is problematic. Sung Joong Kim discusses the use of merit pay and the impact this has both on teacher retention and student success. He finds that merit pay had mixed results with student achievement, with some schools demonstrating a positive correlation and others showing no change in student achievement. However, Kim concludes that merit pay in its current form is largely unfair due to the use of standardized testing to help assess teacher performance. He then advocates for a revision to the assessment process in order to compensate instructors more fairly for their performances.¹⁵ Kim’s findings, in particular his conclusion that the effect of merit pay had mixed results, is further supported by a report done by the Education Commission of the States and published in “The Progress of Education Reform”; in this article, four pay-for-performance programs were evaluated, and “each of the studies of the four pay-for-performance systems found no conclusive evidence to link the new merit pay system with higher student achievement.” The article cites possible reasons for this as the programs being too new or too limited, funding levels not being significant enough, the incentive pay not being high enough, or simply that “merit pay does not contribute to student achievement.”¹⁶

While the findings above are not enough to simply dismiss merit pay as a viable method of increasing student achievement, it does demonstrate how much education and money have become entangled in America. As with many things that are commodified, focusing on monetary rewards and punishments in education can lead to shortcuts being taken and, once again, an emphasis on the bottom line at the expense of a well-rounded education.

¹⁶ Education Commission, “Merit Pay.”
The case of Michelle Rhee in Washington D.C. highlights the problems that can come with the commodification of education. Rhea used Crosby S. Noyes Education Camp as an example of how policies she had implemented could help dramatically increase student scores. As mentioned in the Public School Review, “[i]n 2006, only 10 percent of Noyes students scored "proficient" or "advanced" in math. Just two years later, as many as 58 percent scored that high, and reading scores shot up as well”;\(^\text{17}\) this dramatic increase initially drew positive feedback, but a later investigation by “USA Today found that Noyes has an extraordinarily high number of erasures on their tests during those years. Investigators found a pattern of erasing wrong answers and switching them to correct ones.”\(^\text{18}\) Rhee maintained that the allegations of cheating at the higher level were false, but it is important to note that, according to The Washington Post, “Rhee and her successor, Kaya Henderson, created a system that demanded ever-higher accomplishments — higher test scores, higher graduation rates. They used money as an incentive: Principals and teachers were rewarded financially if they hit certain numbers”;\(^\text{19}\) if the allegations of cheating do have merit, one must conclude that these incentives at least partially contributed to its presence.

Although the emphasis on standardized testing and the commodification of education may seem like modern problems, this approach to education goes as far back as Ancient Greece. During this time, the sophists were well-known in Athens for charging a pretty penny to educate young Athenians on how to win. In the Hippias Major, a dialogue with Hippias, one of the more prominent sophists at the time, Socrates brings up the point that scholars of older generations generally did not earn money for the dispensation of their wisdom. In response, Hippias proudly explains to Socrates that “if you were to know how much money I have made, you would be amazed.”\(^\text{20}\) This sentiment is more overtly presented in Isocrates’ scathing critique Against the Sophists, where he states that:

> these professors have gone so far in their lack of scruple that they attempt to persuade our young men that if they will only study under them, they will know what to do in life and through this knowledge will become happy and prosperous. More than that, although they set themselves up as masters and dispensers of goods so precious, they

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\(^{18}\) Chen, “Washington DC.”

\(^{19}\) Brown, Strauss, and Strain. “It was hailed as the national model for school reform. Then the scandals hit,” The Washington Post, March 10, 2018.

are not ashamed of asking for them a price of three or four minae!  

While it has been difficult to determine how, exactly, sophistry differs from philosophy, one common theme in both Plato’s and Isocrates’ depictions is “the mercenary character of the sophists”; for both of them, the sophists can be distinguished from philosophers in that they charge for their services. Additionally, it is clear that these charges are not modest ones meant only to cover the cost of living. In “Golden Greece: Relative Values, Minae, and Temple Inventories” Michael Vicker states that in “Athens the mina was the denomination employed for luxury and high-cost items”; the fact that Isocrates uses this currency to describe the cost of these services indicates that they were likely available only for the wealthy. Thus, one reason that the sophists were disdained was because they overtly commodified education, so much so that only the wealthy could afford it.

However, the sophists were not only criticized for their willingness to charge for educational services. Many thinkers in Ancient Greece attacked the sophists for “their overestimation of the power of speech.” In the Gorgias, Plato engages in a discussion with three sophists, Gorgias, Polus, and Callicles. His conversation with Gorgias is particularly enlightening as it reveals quite a bit about how the sophists approached education. At one point during this conversation Socrates asks Gorgias what is the greatest good for men, to which Gorgias replies:

> I call it the ability to persuade with speeches either judges in the law courts or statesmen in the council-chamber or the commons in the Assembly or an audience at any other meeting that may be held on public affairs. And I tell you that by virtue of this power you will have the doctor as your slave, and the trainer as your slave; your money-getter will turn out to be making money not for himself, but for another, —in fact for you, who are able to speak and persuade the multitude.

In other words, for Gorgias, what people should strive for is the ability to exert power over other peoples’ will. Of course, one can affect others’ wills through truth, e.g., one can convince others to adopt certain viewpoints or take certain actions based on well-researched data and repeatable empirical studies; however, this is not the type of persuasion Gorgias has in mind in his response to Socrates. Instead, as Socrates later point out, Gorgias’ position is

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that “the rhetorician’s business is not to instruct a law court or a public meeting in matters of right and wrong, but only to make them believe”;26 of course, there is the issue of conflating rhetoric with sophistry here, and as we see in later Platonic dialogues like The Statesman where he discusses rhetoric as a useful tool for political leaders27, this conflation is not one that Plato maintains as he gets older. However, it is clear from this passage that, for the sophists, the job of education was not to teach students how to find truth through critical thinking, but only to how to convince others, i.e., how to win debates. Aristotle makes a similar point in his work On Sophistical Refutations when he claims that “sophistic art consists in apparent and not real wisdom, and the sophist is one who makes money from apparent and not real wisdom”;28 Like Plato, Aristotle argues that the sophists are not concerned with true knowledge, but only with having the appearance of knowledge. Thus, we can see ChatGPT as the ideal student for the sophists; whether it can think critically or endeavor to find truths is irrelevant. Rather, if it can convince others that it is correct, then it is successful according to Gorgias’ reasoning, and this is exactly what it does: it does not come up with new ideas, nor does it try to discover truths, but its only purpose is to try and convince, e.g.,

convince us that it is human, convince us that it has knowledge, convince us it gave the correct answers, convince us the information collated is verifiable, etc. The fact that we are afraid of students passing off ChatGPT-generated assignments as their own without detection forces us to question how we are teaching, and how we are assessing, and what constitutes knowledge. We are not asking them to demonstrate true knowledge, or to generate new ideas, but only to reiterate information that has been acquired through rote memorization or collation without any need for critical assessment.

To be fair, there is debate about how accurate Plato’s characterization of the sophists is. Many modern thinkers view the sophists as pragmatic counter-parts to what they feel is the dogmatism of Plato’s philosophy. Rather than see them as money-hungry nihilists, these scholars see the sophists as thinkers who “represent the spearhead of liberal and democratic thinking in Greece.”29 W.K.C. Guthrie explains in The Sophists that “until comparatively recently the prevailing view...was that in his quarrel with the Sophists Plato was right. He was what he claimed to be, the real philosopher or lover of wisdom, and the Sophists were superficial, destructive, and at worst deliberate deceivers.”30

26 Plato, Gorgias, 287

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30Guthrie, The Sophists, 10.
He further explains that this view has been challenged in recent history, with several prominent philosophers like Henry Sidgwick and Sir Karl Popper expressing a sympathetic understanding of the sophists and raising questions about the accuracy of Plato’s presentation. Bruce McComiskey complicates this even further by explaining in direct reference to Guthrie’s analysis that “one problem with many of these “new” interpretations of the sophistic doctrines, however, is that they undertook only a negative deconstruction. In other words, they did not challenge the very doctrines Plato ascribed to the sophists; they accepted these doctrines as historical fact and tried instead to value those doctrines differently”;31 he goes on to analyze the few texts we do have left from known sophists to try and show that Plato’s depiction was likely inaccurate. Additionally, Håkan Tell explains in his article “Wisdom for Sale? The Sophists and Money” that the characterization of the sophists as money-hungry teachers is not based in reality but is instead a result of “disparagement and bias.”32 This debate is made even more complicated by the fact that very few direct texts from sophist philosophers have survived; most of our understanding about their thinking comes through second-hand accounts, the most famous and unsympathetic of these being from Plato, although this also includes other philosophers like Isocrates and Aristotle. Therefore, we have very little to help determine to what extent, if any, Plato and other philosophers may have mischaracterized them.

Despite the limited number of primary texts from the sophists, many scholars have examined those that are available, as well as Plato’s own dialogues, in an effort to demonstrate that the true nature of sophist thought is quite different than Plato’s characterization. Much of the Plato’s disparagement stems from the relativistic nature of sophist thought. Protagoras famously stated that “Of all things the measure is man”,33 a sentiment shared by several other sophists in one way or another. The sophists hold the view that, because of the limitations of human understanding, knowledge can never be absolute. As McComiskey explains, for Gorgias at least, “there can be no rational or irrational arguments because all human beliefs and communicative situations are relative to a particular kairos or ‘right moment’”;34 to think of arguments as being rational or irrational, i.e., to think of arguments as successfully or unsuccessfully latching on to some universal truth, is problematic since “no argument can ever be entirely rational in the Platonic sense of the word.”35 However, there is much

disagreement as to how much, if at all, this means that the sophists thought of rhetoric and argumentation simply as a matter of creating unanchored claims with the solitary goal of winning rather than as endeavors to find truth in some sense. This is certainly the view of sophistry that Plato presents in his dialogues, as do both Aristotle and Isocrates, but others argue that this is an oversimplification and/or a misunderstanding of what the sophists are doing with these claims. Carol Poster examines Gorgias’ work On Non-Being, a treatise where Gorgias argues that nothing exists, and even if it does, it is beyond our ability to understand in a way that is communicable to others.36 Often considered a parody of Parmenides’ claim that there is only one being, Poster argues that no such evidence for this position exists in antiquity, claiming instead that On Non-Being can be read as a serious attempt at metaphysical exposition, thus demonstrating Gorgias’ role not as a sophist, or at least not just as a sophist, but as a philosopher as well, genuinely seeking to engage in discussions about the nature of reality.37 McComiskey looks at the original Greek language of Plato’s Gorgias to show that two different Greek words are used for the English word ‘knowledge’, with “Plato refer[ing] to a priori knowledge (epistêmê), which is consistent with the requirements of his foundational epistemology, and Gorgias refer[ing] to empirical knowledge (eidô), which is consistent with the requirements of his relativistic epistemology”;38 this helps to support his argument that Gorgias did believe in truth and knowledge, but that he thought these could only be empirically based, and thus they could only ever exist in a relativistic sense.

Whether or not the representations of sophist thought in Ancient Greek texts are accurate is an ongoing debate that will certainly not be settled here. For the purposes of the claims made herein, this matters in one of two ways. Should it be the case that the common understanding of sophistry that is derived from Plato’s and others’ depictions is false, then the US education system is flawed in that it not only based its approach to learning on this foundation, but also that this foundation is a chimera, never having existed in the first place. If it is the case the Plato was correct in his depictions of the sophists, then the flaws in the American school system could be evidence for why it may be problematic to “value those doctrines differently”39 given their causal relation to these flaws. In either case, the anxieties regarding ChatGPT and education in the United States reveal that the traditional idea of sophistry, whether a false yet long-enduring one or a true understanding of reality in Ancient Greece, still reflects a very real and present situation, and it is a useful heuristic for

38 McComiskey, New Sophistic Rhetoric, 25.
39 McComiskey, New Sophistic Rhetoric, 4.
educators to use when considering our contemporary problems.

Concerns about ChatGPT, then, are not concerns about the end of education in its true form; instead, these concerns are based on the fear that we must now face the music – we have failed to implement policies that make students true critical thinkers and instead focused on the bottom line in the form of ‘winning’ standardized tests. In order to do so, we have commodified education to the extent that educators may even be willing to take shortcuts to earn monetary incentives at the expense of our children’s learning. In other words, educators and administrators are now forced to admit that the sophistry that has long been derided as the epitome of bad educational practice has become the foundation of our own approach to education here in the United States. The fact that so many of our most respected exams can now be passed by software designed to simply regurgitate information found online in a cogent way means that this is exactly what we have been teaching our children to do. ChatGPT does not think, it does not create new ideas, nor does it reflect critically on existent ideas; instead, it simply takes data from the internet and re-presents it in a clear enough way to fool us into thinking a human is doing it. The fear of ChatGPT and other AI chatbots fooling us into thinking they ‘know’ shows that we have become so misguided under the current system of things that we do not even understand what true knowledge is.

However, all is not lost. If we wish to fix our current system and remove its sophistic nature, then we only need to look at the sophists’ arch-enemy – Plato. Plato was diametrically opposed to the sophists’ practices. Although students did have to pay their own way in regards to room and board, he “did not charge tuition for individuals who associated with him at the Academy,”40 Plato’s famous school in Ancient Athens; this was one of his main concerns with the sophists, so it would make sense that he avoided monetizing education at his own school. Additionally, for Plato, education and knowledge were not simply about winning, whether winning a dialogue, test, or court case, or any other such matter. Instead, it is a process, both in the immediate sense and in the long-term. This is made evident in his work the “Theaetetus,” where he dialogues with Theaetetus to try and tackle the age-old problem of knowledge, including what it is and how we attain it. While Plato and Theaetetus never come to an adequate definition of knowledge, they do demonstrate that knowledge in its true sense cannot be fully reproduced in an algorithmic manner; instead, it is a dynamic, nuanced, and life-long process that is both universal and individual41, thus precluding any product from ChatGPT as counting as true


knowledge. It may fool us into thinking it is the real thing, but a good education helps us know when we are confronted with a good imitation and when it is the real thing.

The steps needed to implement changes to the American education system are not new nor rare. While some countries, particularly in East Asia, share an emphasis on standardized testing and do so with success, ranking amongst the highest in the world, educators are often well-paid; in fact, Korea and Japan rank amongst some of the highest countries in terms of educator pay. What this means is that teachers do not need additional incentives; they are paid well, and well-respected. Thus, while pressure is on students to perform competently on these tests, teachers are not incentivized to circumvent nor short-change students’ education while preparing them for these tests. However, even these countries are starting to recognize the shortcomings of the ‘teaching to the test’ approach as well, with a “a common shift away from knowledge acquisition (historically based on rote memorization) toward development of competencies (or skills). In Japan, for example, the change is manifested and framed away from “what do students know” towards “what can they do with what they know.”

Finland is repeatedly ranked amongst the best education systems in the world as well. Unlike East Asian countries, Finland has done away with mandatory standardized testing completely. Finnish teachers also get paid more than teachers in the United States, and the lack of standardized testing means that they are under no pressure to make sure that students pass; as such, there is little commodification of education in the Finnish system, and teachers have a relatively high amount of autonomy in the classroom. As we can see, the highest-ranking education systems in the world are marked by a general trend away from an emphasis on standardized testing and the commodification of education and towards a more holistic approach that emphasizes critical thinking. Of course, this does mean that “[a]ssessments [will] become more complex now that students are learning to learn rather than simply memorizing information [since] evaluating learning that is inherently process-based, such as reasoning or interpersonal skills, is challenging and difficult to define,” but if we wish to alleviate concerns about the impact ChatGPT will have on education, this is a task that we must be willing to take on.

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