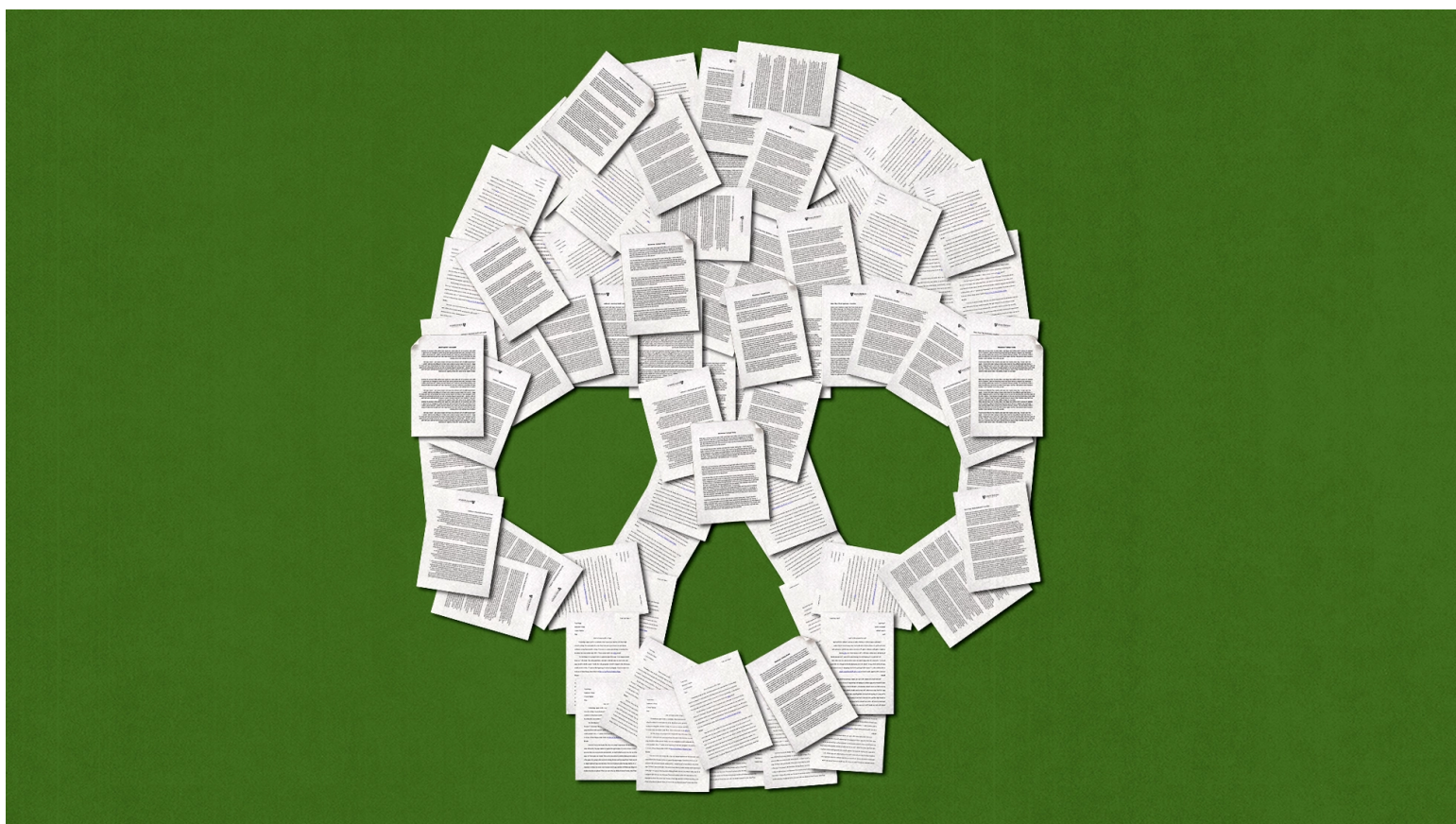


TECHNOLOGY

The College Essay Is Dead

Nobody is prepared for how AI will transform academia.

By Stephen Marche



Paul Spella / The Atlantic; Getty

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Suppose you are a professor of pedagogy, and you assign an essay on learning styles. A student hands in an essay with the following opening paragraph:

The construct of “learning styles” is problematic because it fails to account for the processes through which learning styles are shaped. Some students might develop a particular learning style because they have had particular experiences. Others might develop a particular learning style by trying to accommodate to a learning environment that was not well suited to their learning needs. Ultimately, we need to understand the interactions among learning styles and environmental and personal factors, and how these shape how we learn and the kinds of learning we experience.

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Pass or fail? A- or B+? And how would your grade change if you knew a human student hadn't written it at all? Because Mike Sharples, a professor in the U.K., used GPT-3, a large language model from OpenAI that automatically generates text from a prompt, to write it. (The whole essay, which Sharples considered graduate-level, is available, complete with references, [here](#).) Personally, I lean toward a B+. The passage reads like filler, but so do most student essays.

Sharples's intent was to urge educators to "rethink teaching and assessment" in light of the technology, which he said "could become a gift for student cheats, or a powerful teaching assistant, or a tool for creativity." Essay generation is neither theoretical nor futuristic at this point. In May, a student in New Zealand confessed to using AI to write their papers, justifying it as a tool like Grammarly or spell-check: "I have the knowledge, I have the lived experience, I'm a good student, I go to all the tutorials and I go to all the lectures and I read everything we have to read but I kind of felt I was being penalised because I don't write eloquently and I didn't feel that was right," [they told a student paper](#) in Christchurch. They don't feel like they're cheating, because the student guidelines at their university state only that you're not allowed to get somebody else to do your work for you. GPT-3 isn't "somebody else"—it's a program.

The world of generative AI is progressing furiously. Last week, OpenAI released an advanced chatbot named ChatGPT that has spawned a new wave of [marveling and hand-wringing](#), plus an [upgrade](#) to GPT-3 that allows for complex rhyming poetry; Google [previewed](#) new applications last month that will allow people to describe concepts in text and see them rendered as images; and the creative-AI firm Jasper received a [\\$1.5 billion valuation](#) in October. It still takes a little initiative for a kid to find a text generator, but not for long.

The essay, in particular the undergraduate essay, has been the center of humanistic pedagogy for generations. It is the way we teach children how to research, think, and write. That entire tradition is about to be disrupted from the ground up. Kevin Bryan, an associate professor at the University of Toronto, [tweeted](#) in astonishment about OpenAI's new chatbot last week: "You can no longer give take-home exams/homework ... Even on specific questions that involve combining knowledge across domains, the OpenAI chat is frankly better than the average MBA at this point. It is frankly amazing." Neither the engineers building the linguistic tech nor the educators who will encounter the resulting language are prepared for the fallout.

A chasm has existed between humanists and technologists for a long time. In the 1950s, C. P. Snow gave his famous lecture, later the essay "The Two Cultures," describing the humanistic and scientific communities as tribes losing contact with each other. "Literary intellectuals at one pole—at the other scientists," Snow wrote. "Between the two a gulf of mutual incomprehension—sometimes (particularly among the young) hostility and dislike, but most of all lack of understanding. They have a curious distorted image of each other." Snow's argument was a plea for a kind of intellectual cosmopolitanism: Literary people were missing the essential insights of the laws of thermodynamics, and scientific people were ignoring the glories of Shakespeare and Dickens.

The rupture that Snow identified has only deepened. In the modern tech world, the value of a humanistic education shows up in evidence of its absence. Sam Bankman-Fried, the disgraced founder of the crypto exchange FTX who recently [lost his \\$16 billion fortune in a few days](#), is a famously proud illiterate. "I would never read a book," [he once told an interviewer](#). "I don't want to say no book is ever worth reading, but I actually do believe something pretty close to that." Elon Musk and Twitter are another excellent

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case in point. It's painful and extraordinary to watch the ham-fisted way a brilliant engineering mind like Musk deals with even relatively simple literary concepts such as parody and satire. He obviously has never thought about them before. He probably didn't imagine there was much to think about.

The extraordinary ignorance on questions of society and history displayed by the men and women reshaping society and history has been the defining feature of the social-media era. Apparently, Mark Zuckerberg has read a great deal about Caesar Augustus, but I wish he'd read about the regulation of the pamphlet press in 17th-century Europe. It might have spared America the annihilation of social trust.

These failures don't derive from mean-spiritedness or even greed, but from a willful obliviousness. The engineers do not recognize that humanistic questions—like, say, hermeneutics or the historical contingency of freedom of speech or the genealogy of morality—are real questions with real consequences. Everybody is entitled to their opinion about politics and culture, it's true, but an opinion is different from a grounded understanding. The most direct path to catastrophe is to treat complex problems as if they're obvious to everyone. You can lose billions of dollars pretty quickly that way.

As the technologists have ignored humanistic questions to their peril, the humanists have greeted the technological revolutions of the past 50 years by committing soft suicide. As of 2017, the number of English majors had nearly halved since the 1990s. History enrollments have declined by 45 percent since 2007 alone. Needless to say, humanists' understanding of technology is partial at best. The state of digital humanities is always several categories of obsolescence behind, which is inevitable. (Nobody expects them to teach via Instagram Stories.) But more crucially, the humanities have not fundamentally

changed their approach in decades, despite technology altering the entire world around them. They are still exploding meta-narratives like it's 1979, an exercise in self-defeat.

Read: The humanities are in crisis

Contemporary academia engages, more or less permanently, in self-critique on any and every front it can imagine. In a tech-centered world, language matters, voice and style matter, the study of eloquence matters, history matters, ethical systems matter. But the situation requires humanists to explain why they matter, not constantly undermine their own intellectual foundations. The humanities promise students a journey to an irrelevant, self-consuming future; then they wonder why their enrollments are collapsing. Is it any surprise that nearly half of humanities graduates regret their choice of major?

The case for the value of humanities in a technologically determined world has been made before. Steve Jobs always credited a significant part of Apple's success to his time as a dropout hanger-on at Reed College, where he fooled around with Shakespeare and modern dance, along with the famous calligraphy class that provided the aesthetic basis for the Mac's design. "A lot of people in our industry haven't had very diverse experiences. So they don't have enough dots to connect, and they end up with very linear solutions without a broad perspective on the problem," Jobs said. "The broader one's understanding of the human experience, the better design we will have." Apple is a humanistic tech company. It's also the largest company in the world.

Despite the clear value of a humanistic education, its decline continues. Over

the past 10 years, STEM has triumphed, and the humanities have collapsed. The number of students enrolled in computer science is now nearly the same as the number of students enrolled in all of the humanities combined.

And now there's GPT-3. Natural-language processing presents the academic humanities with a whole series of unprecedented problems. Practical matters are at stake: Humanities departments judge their undergraduate students on the basis of their essays. They give Ph.D.s on the basis of a dissertation's composition. What happens when both processes can be significantly automated? Going by my experience as a former Shakespeare professor, I figure it will take 10 years for academia to face this new reality: two years for the students to figure out the tech, three more years for the professors to recognize that students are using the tech, and then five years for university administrators to decide what, if anything, to do about it. Teachers are already some of the most overworked, underpaid people in the world. They are already dealing with a humanities in crisis. And now this. I feel for them.

And yet, despite the drastic divide of the moment, natural-language processing is going to force engineers and humanists together. They are going to need each other despite everything. Computer scientists will require basic, systematic education in general humanism: The philosophy of language, sociology, history, and ethics are not amusing questions of theoretical speculation anymore. They will be essential in determining the ethical and creative use of chatbots, to take only an obvious example.

The humanists will need to understand natural-language processing because it's the future of language, but also because there is more than just the possibility of disruption here. Natural-language processing can throw light on a huge number of scholarly problems. It is going to clarify matters of

attribution and literary dating that no system ever devised will approach; the parameters in large language models are much more sophisticated than the current systems used to determine which plays Shakespeare wrote, for example. It may even allow for certain types of restorations, filling the gaps in damaged texts by means of text-prediction models. It will reformulate questions of literary style and philology; if you can teach a machine to write like Samuel Taylor Coleridge, that machine must be able to inform you, in some way, about how Samuel Taylor Coleridge wrote.

The connection between humanism and technology will require people and institutions with a breadth of vision and a commitment to interests that transcend their field. Before that space for collaboration can exist, both sides will have to take the most difficult leaps for highly educated people: Understand that they need the other side, and admit their basic ignorance. But that's always been the beginning of wisdom, no matter what technological era we happen to inhabit.
