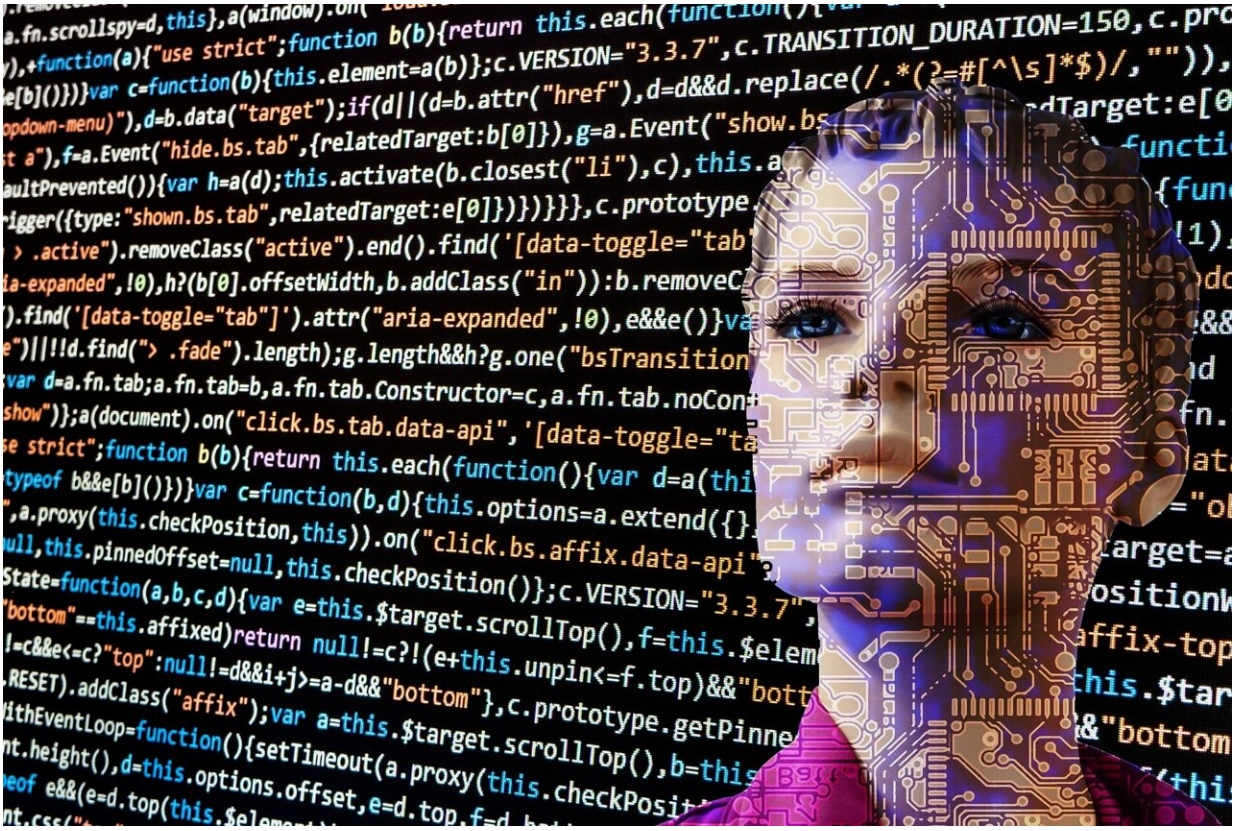
# Opinion: AI-proofing your career starts in college

April 10 2023, by Allison Schrager



Datasets used to train AI algorithms may underrepresent older people. Credit: Pixabay/CC0 Public Domain

The job market has never offered any guarantees. Mechanization wiped out once-secure careers in manufacturing. Now artificial intelligence

(AI) is coming for a future generation of jobs that had seemed safe, starting with software coding and back-office work. So what can we do about it?

Despite some hyperbolic fears, there are reasons to be optimistic about the future of technology. It has the potential to bring a better quality of life and more widespread prosperity—eventually. To prosper in this future, workers will need new skills and a different education. And that means rethinking how we approach college and what we want it to provide us.

Most college degrees pay off not only in higher wages but because they mean graduates are less likely to be unemployed, or will be unemployed for less time. Evolving technology in the late 20th century put a higher premium on more education, leading more people to go to college. The share of the population over age 25 with some post-secondary education doubled between 1980 and 2021 to more than 60%. This increased the supply of graduates and also shrunk the wage premium for college degrees.

More people going to college also means more bad outcomes: more dropouts and more degrees that don't pay off. Meanwhile, the price of education has skyrocketed. So no surprise that many people are asking if college is even worth it anymore.

It is. In fact, with new technology coming our way it will be more valuable than ever.

If the past is any guide, thriving in an age of technological innovation requires being adaptable and finding different ways to add value. For example, machines that could weave cloth at scale displaced many workers, but master craftsmen who made exceptional-quality goods still had jobs. Other people had to learn how to work a machine. It was not

an easy transition; there was a lot of social upheaval and displacement. How we educated the population changed to suit the new economy and it took several decades for workers to adapt. Industrialization is a big reason why we adopted universal public education.

Today's technology arguably poses more challenges because some white-collar jobs will disappear, too. So far, large language models like ChatGPT are good at synthesizing existing information to make a decent argument or find a solution to problems. The technology will only get more powerful, though its creative abilities will likely be limited.

Psychologist Gerd Gigerenzer argues that AI is better suited to tasks where risks are well defined and the parameters are stable, like playing chess. It's less good at dealing with problems where there is more uncertainty. We'll face more of the latter because data and knowledge from the past tells you little about a fast-changing future. Past data can even be misleading. Gigerenzer thinks human judgment will remain critical, and the value might even be super-charged for people who learn to use the new technology properly.

Interpersonal skills will also be prized. High-touch human time will be the rarest of commodities. Most importantly, thriving will require constantly learning new things and adapting swiftly because we don't know how new technology will unfold.

In short, success will come to those who know how to think and think well. This means students must hone their critical thinking skills as part of their education.

Getting that out of a college degree requires two things: different expectations and class selection on the part of students, and for universities and colleges to revamp their approach to curriculums. Even before AI, society struggled to figure out what a post-secondary

education should provide. American universities and colleges were originally intended to be liberal arts institutions that aimed to make well-rounded, thoughtful leaders. In contrast to the European model where students specialize early, American students were meant to get a more cursory exposure to many different fields.

This was reasonable when a small share of the population went to college and it wasn't too expensive. But as more people pursued higher education and costs rose, the expectation changed. Students wanted a more vocational and career-focused education and were less interested in reading Plato. Meanwhile, colleges and universities stopped doing either job well. Many students struggle to apply their degree to the job market, and the education they get has become less rigorous. One study found little improvement in critical-thinking skills during the first few years among 45% of students.

It's understandable people want a clearer path to a career from their degrees, but treating college strictly as vocational education limits students' skills. Now that critical and creative-thinking skills will be even more essential, American schools should embrace and improve on their original mission that aims to produce well-rounded thinkers.

There are ways to make any college major more practical or to integrate the humanities, says Preston Cooper, a fellow at the Foundation for Research on Equal Opportunity who has researched the value of degrees. For instance, high-return degrees such as nursing could include more liberal arts classes. More traditional humanities majors like history could include marketing and communications courses. This would impart both hard skills and broader thinking ability, and students would enter the labor force more employable and adaptable.

In the short run, it will fall on students to challenge themselves and take the initiative to make their college education more AI-proof. They need

to seek out the classes that make them think more rigorously, including math, and probability and statistics. Then balance those with humanities where they'll learn history and how to write well. (AI may do more writing for us in the future, but knowing how to write well helps clarify and organize your thoughts.) Students should develop a reading list that allows them to explore the great minds of the past and contemplate how to apply their insights to current times. Here are a few I'd recommend as a starting place:

- Plato: "The Republic"—the best book on the nature of education and its relationship to politics.
- Machiavelli: "The Prince"—on how to master fortune as far as humanly possible!
- Abraham Lincoln's greatest speeches—statesmanship at the highest level.
- Hannah Arendt: "The Origins of Totalitarianism"—perspectives on how to respond to efforts to dehumanize.
- Roderick Floud and Deirdre McCloskey: "Economic History of Britain"—How does a market come into being and change the world?

Face it, harder classes will mean a lot more work and may mean worse grades. But it will be the best insurance students can get from whatever change technology is going to be throwing at them. This is how they can get greater value from their degree—and in the new economy it will be more valuable than ever. The sooner they get started the better.