

How Big Tech Captured American Schools

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By [Natasha Singer](#)

Companies like Google and Microsoft have used their money, their might and their massive reach to influence nearly every step of the education supply chain.

One humid afternoon in the summer of 2025, representatives from Microsoft were waiting as some 200 teachers trooped into a conference hall in downtown Manhattan. The educators were there for a workshop on the school technology of the moment: artificial intelligence chatbots.

The Microsoft team gave a presentation on their Copilot chatbot and asked the teachers to practice using it for tasks like generating emails to parents and customizing lesson plans. Microsoft instructors also screened an A.I. explainer video that their Minecraft Education division had produced for children. The animated clip, based on the company's blockbuster world-building game, featured a cheerful narrator and a cute Minecraft duck. Even if some schoolchildren weren't old enough to use A.I., one of the Microsoft workshop leaders told the teachers in attendance, at least they could start learning about it.

As a journalist covering technology in schools, I had observed similar workshops for teachers and students that were funded or led by corporate giants like Amazon, Apple, Meta, OpenAI and Alphabet, the parent company of Google. Taking in this one, at the headquarters of the United Federation of Teachers, I was struck by how similar the sessions were to training I'd seen years earlier, while reporting on the health care industry: seminars for doctors, organized by pharmaceutical companies, that aimed to get physicians to prescribe the latest brand-name drugs.

"Industry funds what helps industry," Dr. Adriane Fugh-Berman, a pharmacology professor at Georgetown University Medical Center who studies drug industry influence on medicine, told me recently, as I was reporting a book about A.I. and computer science education in schools.

These workshops have upsides. Big Pharma seminars can be useful for keeping physicians up-to-date on the latest patient remedies, and Big Tech workshops can similarly help educators keep current on the newest software tools. But Silicon Valley's efforts to capture the attention of education professionals and provide student training materials can also double as marketing or indoctrination. They enable some of the most powerful corporations on the planet to spin rosy technology stories for administrators, teachers and students, giving them a sanitized view of industry practices and product risks.

Many parents would likely object if, say, Exxon Mobil wrote their children's environmental science curriculum. Or if Purdue Pharma trained their children's biology teachers. Yet, over the last decade, schools have often embraced the technology industry in similar ways with few questions asked.

Industry-sponsored teacher training is just one technique that Big Tech companies use to shape schools and promote their worldviews to students. In interviewing more than 100 education and tech industry figures for my book, and reviewing hundreds of school, government and corporate documents, it became clear that a handful of giants have used their money, their might and their mammoth platforms to influence nearly every step of the education supply chain.

Teachers in New York learned about Minecraft Education, a Microsoft product for schools based on the company's popular world-building game. Credit...Ahmed Gaber for The New York Times

The day after the Microsoft-led workshop in Manhattan, the American Federation of Teachers, a national union with 1.8 million members, made a major announcement. The union was starting an ambitious program to train teachers nationwide on A.I., [with \\$23 million in funding from Microsoft, OpenAI and Anthropic](#).

Publicly, Randi Weingarten, the A.F.T. president, was bullish. In an interview at the time, she said the partnership would help educators learn to use chatbots "safely, wisely and ethically," while also getting them a seat at the table with behemoths like Microsoft and OpenAI as they developed and refined their A.I. products.

I pointed out to Ms. Weingarten that the union-industry deal might also present a fox-henhouse problem for schools. While her organization was calling for safeguards to protect children from A.I. risks, some trade groups representing Big Tech were working to block A.I. safety laws. She acknowledged the dissonance. "We are in it for the good of students and for the good of the country and for the good of families and to make sure educators actually play their rightful role," she said. "Some of the companies that we're engaged with are in it for profit. Those are two fundamentally different goals."

After Ms. Weingarten announced her union's deal with Big Tech companies, a few teachers and professors publicly warned that the spread of A.I. chatbots could undermine their profession, by outsourcing and automating core tasks like giving students feedback on their work. One of the more forceful educators was Lois Weiner, an education professor emerita at New Jersey City University and a retiree member of the U.F.T., who argued on Bluesky that the national union was selling out to corporate interests.

"This isn't an alliance," Ms. Weiner told me. "We aren't sitting at the table. We're the meal."

Consumer tech giants provide the essential scaffolding that schools run on. That means laptops and tablets; operating systems and device-tracking software; the apps students use to write essays and analyze data; the messaging platforms that connect students and teachers; and more. Some of these companies, including Google, Microsoft and Apple, have also used their status as classroom tech providers as a springboard to influence how and what schoolchildren learn.

Tech companies finance national polls and research reports to help make products like A.I. chatbots, and courses like computer science, more urgent priorities for students and school districts. They advocate for new laws to require schools to teach industry-aligned subjects. They sit on committees that help shape learning standards for public school students. They supply or sponsor teacher training and free course materials for students. They fund the National PTA, teachers' unions and other prominent groups.

This playbook allows the companies to shape the American education system in ways that benefit them. Apple, for instance, offers a free Advanced Placement Computer Science curriculum that teaches high schoolers to code in Swift, its programming language for developing iPhone apps. Microsoft offers a competing curriculum: AP Computer Science Principles with Minecraft Education.

To some ears, the course names sound innocuous. But there is no Raytheon-branded AP Physics course, DuPont AP Chemistry course or Pfizer AP Biology course.

This story matters whether you want schools to center tech skills or are agnostic, because the recent learn-to-code craze and the growing push for A.I. in schools are not just about learning. Those trends are part of a larger exercise of Silicon Valley power. The public education system, hungry for resources to improve opportunities for students, has become an avenue for multitrillion-dollar companies to enact their agendas.

This development taps into fundamental questions about education that Americans have been arguing over for more than a century. What is the purpose of public schooling? Is it to raise critical, independent thinkers? Train students in the latest career skills? Help young people discover their passions? Serve the needs of the prevailing industry or emerging ones? Create knowledgeable and active participants in a democracy? Or all of the above?

In researching my book, I spoke to tech industry leaders who have helped drive significant changes in schools. Brad Smith, Microsoft's vice chair and president, told me the dynamic began because public schools often seemed ill-equipped to teach crucial modern subjects and prepare students for the ever-evolving demands of the job market. He also suggested I consider where schools might be without support from corporations like Microsoft.

“Philanthropy in the private sector is doing this work because the public sector has failed to do what it’s supposed to do,” Mr. Smith said. He allowed that the situation wasn’t ideal. “It’s filled the gap out of necessity,” he said. “It’s not the way we should want public education to work.”

Brad Smith, Microsoft’s president, said that tech corporations are involved in education out of necessity. “The public sector has failed to do what it’s supposed to do,” he said. Credit...Chip Somodevilla/Getty Images

Maggie Johnson, the head of Google.org, the company’s corporate giving arm, made similar arguments. She said that the company had provided free educational materials and training in subjects like coding and data analytics for millions of underserved students, including middle schoolers and those in rural areas.

It is possible for Big Tech’s intentions in education to be both well-meaning and oriented toward long-term profit. How you feel about any one program depends on your broader views on the technology industry. Public sentiment on these companies has shifted profoundly, from a generally positive disposition in the 2000s and early 2010s to a growing distrust as the downsides of social media, compulsive screen use and corporate power became more apparent.

The tensions could be seen about a decade ago, in December 2017, when Google introduced free coding exercises for schools to use during Computer Science Education Week. The lessons were called “Create your own Google logo,” and they taught students how to use simple coding blocks to make the letters in the company’s logo change color, spin and bounce. The company already ran a wildly popular annual artwork contest, called Doodle for Google, for which tens of thousands of students created logos on different themes. Ms. Johnson said the Google lessons were a great way to get students excited about programming.

That was true. But the lessons also had the feel of brand-washing. At the time, journalists had begun reporting on how Google’s YouTube Kids platform had shown inappropriate, lewd and violent content to children. Separately, the company had begun removing thousands of videos of children, which had been targeted by child predators, from YouTube. Making multicolored Google logos hop and pirouette was a distraction from those headlines.

Google became the dominant tech platform in U.S. schools, eclipsing Apple and Microsoft, in part by offering a convenient package: free apps like Gmail along with sturdy, low-cost laptops called Chromebooks. Last year, Chromebooks accounted for 59 percent

of the mobile devices shipped to U.S. schools, according to Futuresource Consulting, a research firm.

Students in a Chicago elementary school work on Google-powered laptops. Chromebooks accounted for an estimated 59 percent of the mobile devices shipped to U.S. schools last year. Credit...Whitten Sabbatini for The New York Times

The story of how Google came to conquer the classroom is a case study of the company's power. From modest beginnings, it created a mammoth interlocking ecosystem that can drive shifts in teaching and learning — and create customers for life.

A campaign called “Gone Google” from the early 2010s illustrates the company's marketing prowess. Google was just starting to convince universities and school districts to switch from costly legacy software to its free suite of apps. A 19-page marketing guide from Google described the offering as a “celebration of curiosity-fueled, technology-enabled learning” in which students could “learn together with affordable devices and familiar platforms.” The company encouraged education leaders to promote their conversions, and soon, school districts around the country began announcing that they had “Gone Google.”

Google sold school leaders on a similarly feel-good argument for Chromebooks: The laptops would empower students and democratize learning. Schools in Kansas, Michigan, Missouri, New York, Ohio, Oklahoma, Tennessee, Texas and Wisconsin that bought Chromebooks all included variations of the same Googlesque sentence on their sites or student handbooks: “The individual use of Chromebooks is a way to empower students to maximize their full potential and prepare them for college and the workplace.”

The schools' enthusiasm helped obscure a long-term Google goal: hooking students early on services like Gmail and Chrome. The real revenue, made from amassing consumers' data and showing ads based on their online activities, would come later.

Winning over schools and students with free apps was also a useful way for Google to curate and soften its image as regulators began to investigate the company's data practices. In 2019, for instance, [Google agreed to pay \\$170 million](#) to resolve complaints by regulators who said YouTube had illegally harvested children's personal data and used the details to target them with ads.

Since then, millions of schoolchildren have tried colorful animated lessons from Google called “Be Internet Awesome.” The program aims to teach students how to keep their data private and be kind online — and positions Google as a friendly, trustworthy privacy protector.

Schoolchildren who complete Google's "Be Internet Awesome" lessons can get a "certificate of internet awesomeness" from the company. Credit...Google

Schools have spent tens of billions of dollars on classroom technology products over the last decade. Yet laptops and learning apps have generally not proven to significantly improve students' educational outcomes. Some parents and school leaders who feel the industry oversold them on devices have soured on screens in schools, a phenomenon I've come to call [Chromebook remorse](#).

Some schools have now started limiting classroom laptop use. This year, the Los Angeles Unified School District, the second-largest U.S. public school system, agreed to eliminate the use of school-issued iPads and Chromebooks for students in prekindergarten through first grade.

"Ten years ago, we bought the narrative from the tech companies that the only way to prepare our students for the future was to hand each of them a Chromebook or an iPad," Lila Byock, the founder of a parent group called Schools Beyond Screens, said at a recent Los Angeles school board meeting. "Now we know better."

Even Ms. Weingarten, who touted her union's deal with Microsoft and OpenAI to train teachers on chatbots in 2025, has partially reversed course, in line with the rapidly changing politics of A.I. This year, she publicly called for elementary schools to hold off using A.I. with students.

One revealing story about Silicon Valley's sincerity in the classroom involves the push to teach children coding.

In 2011, Eric Schmidt, then the executive chairman of Google, delivered a lecture in Scotland in which he excoriated British schools for failing to teach computer science, the study of programming and concepts like algorithms. Britain would not be able to compete globally, he suggested, if more kids did not learn to code.

Eric Schmidt, the former executive chairman of Google, speaking in Scotland in 2011. He criticized British schools for failing to teach students computer science. Credit...David Moir/Reuters

A year later, Microsoft issued a similar public admonition for the United States: Tech companies could not find enough talented software engineers to maintain their explosive

growth — a hiring shortage that threatened the American economy. Microsoft said the problem was that too few high schools taught computing.

The message took off in 2013, when a nonprofit called Code.org posted a YouTube video, starring Bill Gates and Mark Zuckerberg, that promoted coding as an empowering, lucrative skill for students. “Our policy is literally to hire as many talented engineers as we can find,” Mr. Zuckerberg said in the video. “The whole limit in the system is that there just aren’t enough people who are trained and have these skills today.”

The video went viral, kicking off a nationwide learn-to-code drive in schools. With funding and expertise from Microsoft and Google, Code.org helped convince dozens of states to enact new laws and policies boosting computer science in public schools. The courses had positive effects, teaching students important skills like logic, abstraction and problem-solving. But some also cast tech giants as benevolent, world-changing innovators — often without pushing students to consider the industry’s consequences and harms.

“In other disciplines, we don’t have industry driving K-12 curricular or policy decisions,” Bryan Twarek, a vice president at the Computer Science Teachers Association, a nonprofit group with nearly 10,000 teachers as members, told me. “And we probably shouldn’t.” His candor seemed startling, given that the group’s biggest donors include Amazon, Google and Microsoft.

Big Tech needed an army of coders — until it didn’t. Software engineers are increasingly turning to A.I. tools to generate code. So are many other people with no prior coding experience. Companies like Amazon, Google, Meta and Microsoft are pouring billions into building enormous data centers to fuel A.I. services, even as they lay off thousands of employees. Some recent college graduates who majored in computing are struggling to find tech jobs.

Now some of the same corporations that sold schools on computer science are pushing them to teach A.I. and investing billions of dollars in the effort. And tellingly, this year, Code.org changed its name to CodeAI.

But something different is happening this time in schools: pushback. A groundswell of teachers, parents, researchers and local government leaders say they aren’t buying the idea of new, and educationally unproven, A.I. tools as the next fulcrum for learning.

Some are embracing a broader approach to tech education, one that not only teaches algorithms and app-making, but also asks students to examine how individuals and society are affected by the industry’s disruptions. To see this strategy in person, I visited Alicia

Streight, a math teacher at Edna Brewer Middle School in Oakland, Calif. In addition to teaching traditional topics, Ms. Streight asks her students to analyze how social media influencers manipulate statistics to spread disinformation.

A few years ago, she also started a weekly class to encourage middle schoolers to examine all kinds of innovations in their lives: TikTok, meat substitutes, ChatGPT. She helped her students consider questions like: “Where did this come from? Who’s building this? Who’s profiting? Who’s benefiting? How is this going to affect me? How’s this going to affect my family? What’s going to happen in 10 years?”

Rather than being coded *by* industry, Ms. Streight’s students were learning to decode popular products and ask fundamental questions about the powerful companies behind them. With A.I. spreading at astonishing speed, Ms. Streight argues that it’s more imperative than ever to give students durable analytical skills.

Educators have come up with a term for this pedagogical approach: “technology civics.” After all, public schools have long taught civics as an essential subject for students to understand and navigate government power in their lives. The new discipline will help them understand and navigate Big Tech, and equip them for a world increasingly shaped by machines.

This article is an adapted excerpt from “[Coding Kids: Big Tech’s Battle to Remake Public Schools](#)” by Natasha Singer for W.W. Norton & Company.