



Naked Capitalism/Our Schools: How Corporations Use Public School Workforce 'Pipelines' to Harvest Students' Data and Train Narrowly Skilled, Exploitable Staff

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Yves here. Some countries, notably Germany, have technical tracks to train secondary school students for jobs in industry. Some of those are designed to place graduating students with particular employers.

While this may sound like a sensible idea, count on US corporations to come up with a more predatory implementation. As this article describes, major companies are increasingly dictating the design of these schemes. As this article warns, these programs too often give the students only narrow skills that are very likely to have a short term life in the workplace. Such shallow training, needless to say, is also cheaper than making sure students have a broad enough set of foundational skills to increase their odds of being able to adapt to changing employer needs.

What is also alarming is the way these projects often include a big dose of indoctrination as well as granting employers undue access to student information.

By Jeff Bryant, a writing fellow and chief correspondent for Our Schools who is also is a communications consultant, freelance writer, advocacy journalist, and director of the Education Opportunity Network, a strategy and messaging center for progressive education policy and Velislava Hillman, a visiting fellow at the London School of Economics who is a founder and partner of Education Data | Digital Sovereignty (EDDS), a social enterprise that aims to empower and protect children's data. Produced by Our Schools

Nearly all public schools in the United States (98 percent) offer some form of career and technical education (CTE), and these programs, which were previously called vocational education or voc-ed, aren't new to public schools. But what is new is the extent to which CTE programs have become exploited by big businesses and powerful actors in the marketplace to serve their own needs rather than those of students.

With the 2018 revision to the Carl D. Perkins Career and Technical Education (Perkins IV) Act of 2006 (the main source of federal funding for CTE training)—which was replaced by the Strengthening Career

and Technical Education for the 21st Century (Perkins V) Act of 2018—and other legislation, there are new pressures that these “[programs of study must align with industry](#)” and, as a result, ensure CTE is opening the door for businesses to exploit education resources and get unfettered access to students beginning as early as kindergarten.

From January to June 2021, we (the authors of this article) carried out [extensive research](#) (currently awaiting peer review) across the United States, which involved speaking with families, children, and teachers to understand their concerns related to CTE and the web of policy that is paving the way for powerful corporations and technology companies to influence school curriculum design and the future of millions of children and young people.

Specifically, we looked at the gradual annexation of CTE by big corporations through their development of tech-talent and data extraction pipelines. We identified that advanced digital systems further enable data extraction for student profiling and prediction, which can lead to the development of worker pipelines and a hyperspecialized career pathway for students. Career tracking through the use of these data extractive technologies can ultimately lead to locking children in prescribed futures that ultimately lead to long-term job insecurity.

We interviewed families, children, and teachers from Virginia, Colorado, Tennessee, Ohio, Utah, and New York and analyzed curriculum proposals for CTE programs from big tech companies, presentations by education authorities, news reports, policy documents, white papers, and meeting agendas.

Our conclusion is that the increasing influence of corporations in CTE will ultimately lead to a more oppressive learning environment in which powerful corporations will exert more influence over what children are taught in schools and how they will be trained for their future work lives. Further, the potentially harmful influence corporations have in public schools is being intensified by data extracting systems of precision that use predictive analytics that students and parents generally don't understand, can't access, and have no personal control over.

How Big Corporations Assimilate Schools

Businesses are naturally attracted to public education because students are a source to meet their future labor demand, and schools can be places to inculcate students and families to become loyal customers. For these reasons alone, educators have traditionally resisted the idea of businesses having a disproportionate role in defining education programs. However, the already thin wall separating businesses from public schools has for years been getting gradually worn away.

In a 2011 report titled “Partnership Is a Two-Way Street: What It Takes for Business to Help Drive School Reform,” Frederick Hess and Whitney Downs of the American Enterprise Institute [declared](#), “Business can provide the leverage, expertise, and leadership that will help educators and public officials make tough decisions and take hard steps they may not take on their own.”

In 2014, meanwhile, then-CEO of ExxonMobil Rex Tillerson echoed similar views about the role of public schools in shaping the future workforce for corporations, [saying](#), according to an article in the Washington Post, “I'm not sure public schools understand that... we, the business community, are your customer.” That same year, then-president of the U.S. Chamber of Commerce Foundation John R. McKernan [assigned](#) the public education system the task of providing businesses with “a steady pipeline of talent” and declared, “Business is the largest single consumer of the education system. We can't afford to be passive consumers.”

This thinking has welcomed the lobbying of powerful business leaders to assume that public education is up for grabs and can be molded depending on the workforce requirements for their future streams of operations at any point in time. Well-funded lobbying has led to legislation being passed that backs corporate influence and even promotes the idea of marketing K-12 students as a potential workforce to attract companies like Amazon to set up shop.

For instance, to attract Amazon to build its East Coast headquarters in Virginia, president and CEO of the Virginia Economic Development Partnership Stephen Moret consulted economist Enrico Moretti, who “advised that the best way to lure more tech employers was to build out the pipeline of highly skilled employees through investments in education,” according to [Washingtonian](#). “How did Virginia win Amazon HQ2?” Moret asked during a 2019 Education Summit after the deal was inked. “Other states pitched incentives; we pitched our educated workforce,” he said, according to a [tweet](#) by Chamber RVA, the chamber of commerce representing the entire Richmond area.

Business interests that seek to further control public education have also been enhanced by powerful data systems imposed by legislatures of both the Democratic and the Republican parties and backed by countless enterprises and education technology companies to enable greater individual surveillance, profiling, predictions, and recommendations for developing school-based career pathways that leave children with fewer education choices.

Less Voice and Choice for Students

Despite the growing corporate influence in CTE, our research found that parents were generally concerned about the idea of having their children’s education, beginning as early as kindergarten, and the education curriculum being steered toward supporting someone’s money-making enterprise.

Elly (the names of our subjects have been changed to protect their identity), a mother of two teenagers, described to us how her friend’s 13-year-old daughter found a corporation’s presentation in her school to be similar to a “cult” in the way that it described the children’s future as being part of its workforce solutions. “I just don’t think that’s what public education should be,” she said. “It should be teaching my child how to do all kinds of things. So that if after working for Amazon for five years, he wants to do something else, he can; he’s not stuck working for Amazon.”

Similarly, Lilian told us about how Proseal, a provider of tray sealing technology, which was acquired in 2019 by the global technology solutions provider JBT Corporation, is making its way into her daughter’s school CTE effort under the guise that students would be given a course in environmental studies. The promotional material provided by the school was “so convincing,” Lilian said, adding that her daughter was shown video clips of “some of the field trips [other students had] gone [on] in the past” where students would go to a nearby bay or lake and “[were told] how clean the water was based on the life that was [at] the bottom [of the water body]—you know, all these really cool things.”

However, when her daughter started the course, she learned that the only field trip that the students would take would be to the Proseal factory. “My mouth just fell open,” said Lilian. Her daughter said that the company is “trying to make more environmentally sustainable packaging for food,” so “Proseal is the [company] we keep hearing about that the county wants to partner with.”

Many parents we spoke with felt disheartened when the school curriculum was changed in a way that forced their children to pick a path to college or a CTE course of study predetermined by data pipelines and career portfolios.

John, a high school teacher, said, “[When] you go to [CTE], and you’re trained to work [for] Cisco Systems [a technology conglomerate], you’re not trained more generally in networking. I don’t want students to be trained to work in Amazon... Some of the technical education we have is good. I just don’t think it’s expansive enough.”

Similarly, Nadia, another parent, said, “[The public school system is] making it so specific... so specialized [that] someone would graduate high school and [would] have spent two years learning how to be a lineman operator for the electric utility. In my county, Cisco Systems is being taught [in] CTE.”

Miranda, a mother of four children who are all under 16 years of age, while speaking about the experiences of her youngest daughter in the new school system based on career profiling, said, “They told my child she shouldn’t be a vet tech, or they told my child she should be a baker. And I’m like, none of my kids are interested in that. It makes no sense.”

Recalling how all four of her children grew up in the school system, she said, “It wasn’t like that with my three eldest kids.” Before the career portfolio existed, her children would have a “year-round orchestra... This career investigation thing wasn’t a thing.” So, her youngest child is the first one who got caught in the new system of career profiling.

Even if a child doesn’t want to take on the option of career exploration, and “take a year-long arts music class instead,” another parent explained, “[the child will] have to take... [the career exploration option] in seventh or eighth [grade]; [they]... have to take it by the time... [they’ve] finished eighth grade; there is no opt[ing] out.”

Miranda said, “Career orientations and explorations are not in themselves poor ideas in education”; however, like other families and teachers, she found it wrong to have corporations presenting a field of studies—and a future job option for her children—through the prism of their products.

Colonizing Students for Corporate Employment

The tailoring of K-12 education programs to the needs of corporate workforce preparation has a geographical dimension as well when businesses and government entities collaborate in drawing up borders within states to align education programs to the needs of local employers.

Like plans that were used by Western colonial powers to carve up whole continents into arbitrarily drawn nation-states, these arrangements pair assumptions about family demographics, such as income and education attainment, with the labor needs of major employers in the region to develop an industry-aligned education program.

One such example from Washington [divides](#) the state into [12 regions](#) each with a local workforce development council that ensures a workforce education plan for the region is aligned with the state plan developed by government bureaucrats and representatives of the business community.

Another example, in [Virginia](#), [divides](#) the state into nine regions based on priority industry clusters in each region. In each of these examples, a region dominated by technology, finance, and consulting services is aligned to an education program that is very different from a region dominated by agriculture, mining, and manufacturing.

A parent of two teens said, “These career clusters, you know, [are] ... how the county public school is going to channel you to whatever ‘career cluster’ your county has been selected to specialize in.”

How Big Data Enhances Corporate Power

New data extracting technologies further defy any walls protecting schools and students from being co-opted by corporations and policymakers in order to create a seamless learn-to-earn loop in which data is used to evaluate how students perform and enable corporations and policymakers to sort students based on the skills businesses desire.

Parents raised several concerns about how corporate influence in education has been further empowered by data tracking systems and predefined career pathways that have several long-term negative consequences.

First, hyperspecializing education can lead to long-term job insecurity. It's one thing to study computer science with subjects that span from philosophy to history to ethics; it's quite another to be trained in corporate technology systems, such as Amazon Web Services (AWS), which can change unpredictably over time.

Second, hypernarrow training can lead to societal subjugation. When individuals become hyperspecialized in one area, they remain highly vulnerable to the changes in the market. Accelerating technological development leaves them with no sense of security. This subjugation comes not from the top, but from the self—when the individual, insecure about his or her job, becomes self-focused and apolitical, demotivated, and de-opinionated, and thinks about that rooftop above his or her head and never beyond it.

Third, specific CTE programs, and even whole academies, funded by corporations such as Ford, IBM, Dominion Energy, and others invest in education by selling the idea of personalized, in-demand, and accessible curricula as 'improving' education.

However, parents we interviewed questioned whether these businesses are investing in education because of genuine concerns over good education or out of interests connected to their companies. When AWS foresaw the need to hire workers with cloud skills, Amazon announced in 2020 it would offer cloud computing skills training to more than 29 million people worldwide through its AWS CTE courses, virtual classroom training, and digital courses. In October 2020, Arizona announced plans to train and certify more than 5,000 high school students across the state in cloud computing skills by June 2022. In December 2021, Washington state and AWS announced an agreement to have more than 2,000 students freely access AWS training programs to earn computer-tech certification in high school.

Fourth, hyperspecialization, and the long-term job insecurity that comes with it, hit the poor particularly hard. The social connotation of vocational training with poor-quality education has been historically a result of the social class inequalities imposed by cultural hierarchies. These dominant cultural hierarchies also determine who will be hired. This dynamic reproduces the system of social inequality and associates social class with one's training and education.

The development of artificial intelligence further enhances corporate interests in cherry-picking workers and generating an even greater sense of insecurity among them that leads to individuals feeling a constant threat of "extinction" if the knowledge and skills they had obtained during their school years haven't guaranteed them employment and therefore security.

That long-term sense of insecurity can further lead to a sense of unworthiness and a perverted version of "lifelong learning" that suggests individuals seem to never have learned well enough to deserve financial security.

What strikes us in this research is the voices of so many families who want "a well-rounded education" for their children, the ability "to play an instrument," to "not feel the pressure of what work they'll do one day,"

and to study “science that isn’t just computers but also all other things—botany, zoology, microbiology, earth.”

Also, to our knowledge, there is a lack of empirical evidence for the effectiveness of CTE reforms influenced by corporations, with some researchers saying that CTE is “**seriously understudied.**”

In our conversations with parents, children, and teachers, it became clear that a top-down approach of aligning public education programs with business demands is destroying any good intentions of CTE programs. Corporate influence is expanding well into the earliest years of schooling, turning public schools into agents of surveillance capitalism rather than protected spaces for unfettered learning and personal and intellectual development.

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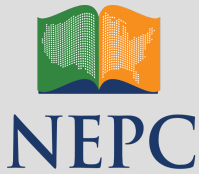
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