What Colleges Can Learn from Covid-19:
A Conversation with Ted Dintersmith

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Former venture capitalist Ted Dintersmith first grew concerned about the state of American education when he compared the subjects and skills his own children were learning at their private, college-preparatory school to what he had been taught over thirty years before (they were the same). He was subsequently galvanized into education reform when the innovators he professionally funded confirmed his suspicions that those very same subjects and skills were already becoming obsolete in the digital age. Since then, Dintersmith has organized [international colloquia](#) at the [United Nations](#), written two books, and produced [an award-winning film](#)—all documenting the destructive consequences on students from school days narrowly structured around standardized measurement instead of deep, experiential learning. Rather than exclusively embracing STEM (Science, Technology, Engineering, and Mathematics) education as a remedy, however, Dintersmith advocates an interdisciplinary, [liberal arts](#), and project-based prescription for the stasis plaguing U.S. schools. With Covid-19's quarantine exposing traditional curricula's limited engagement and effectiveness, and the virus's displacement of standardized testing as the (increasingly contested) measure to evaluate schools and their students, Dintersmith believes that the U.S. has an unprecedented opportunity to reexamine, and reform, its education system. He presents project-based learning as not only the pedagogical way forward through the pandemic but also as the best way to equip learners, from grade school through college, to thrive in its aftermath. He argues that university co-eds and their institutions that successfully leverage both virtual and local networks now—not to study obsolete things better but to learn entirely different things—will become the intellectually engaged problem-solvers most able help their fellow citizens in the future. He explains how in an edited August 26th–27th, 2020 conversation below.

Ted Dintersmith: I went to The College of William and Mary in the 1970s, and I heard my junior year about the ability to do an independent research project—to propose something you actually cared about to your faculty advisor who would approve it, if it was thought worthy. I was taking about half physics courses and half English courses at the time, so I said, "I really want to do that!" I proposed two such projects. In the past, however, dual projects had only been done in fields that you could readily combine (history and English, biology and chemistry, for example). But I wanted to do English *and* physics, even though, at first glance, there's not really an intuitive way to combine them. To my faculty members' credit, instead of telling me, "No, we don't want to set the wrong precedent," or "That's probably more than you can take on," they said yes to my proposals.

So that's what I did. What I write about and push for was true for me: that chance to say, "This is a problem I'm interested in, and I'm going to try to come up with something creative and different to make a contribution." I checked in regularly with each faculty member and, in physics, I ended up as an undergraduate with two publications in *The Journal of Physics*—something most Ph.D.s in physics don't do.

I now help rising college juniors who pitch something similar, giving them funds to travel for research (we've had students go to the Louvre for art history and to Petra for archeology) and for presenting or publishing their papers. We crowd-source among alumni and support the faculty advisors financially as well. Now, over ten percent of the college's students participate.

We all know this is different from the large lecture courses that should have been done away with years ago. *So what* if kids can't take those big lecture classes now? Imagine if you said, "It's a pandemic. It's a botched-up time, but we want to give all of our juniors and seniors the opportunity to replace 'normal' with one or several cross-discipline, ambitious initiatives." The students would be responsible for recruiting one or more faculty mentors/advisors. Alums could be asked to step up: "Would you put in some time?" Students could also find somebody outside of the university community who has expertise. Their entire school experience during junior and senior year could be dedicated to creating these bold initiatives that make a tangible contribution beyond just their GPAs. Their learning experience would be much better, even if they couldn't be on campus—they would still learn a ton. And it would be much better life-preparation than what they're going to do otherwise.

To be sure, that's a hard pivot. I know some faculty will say, "My three hundred-person course is so invaluable that it would be horrible if instead they took it on Coursera and EdX or something." But, honestly, wouldn't that kind of student-directed, civically relevant, community-supported project be a bold pedagogical response to the pandemic for a university?

Here's what it could look like. Supposing we gave academic credit to college students who can't be on campus for finding children in their community who are desperate for instruction. They could organize a pop-up school and help them do exactly the kind of things we're saying. Create initiatives. Cut across disciplines. Do great projects. They would learn *so much* about teaching! They could then report back to a faculty member weekly with reflections with analyses—complete with videos of the progress the kids are making.

You could do this in any field. Take history. Capture consequences of the pandemic in real time in your community. There are so many things unfolding in this enormous arc of history right in front of our eyes. Capture it. Describe it. Do a podcast on it. Write a book about it. If you're a physics or chemistry major, help your local community figure out its testing strategy. These kinds of initiatives seem to be the biggest of all opportunities today. And they all show what education can be.

Kaley Carpenter: What you've just said relates directly to the effects of COVID-19 on students' academic and personal lives. Their academic plans or professional tracks were affected. These disruptions included cancelled internships, study abroad trips, campus summer research programs, clinicals, medical professional shadowing, elective minors, and other academic course credit. While students had undoubtedly invested time and energy to secure these now-lost opportunities, what you described could serve as alternatives to them. Even the clinical medical shadowing could happen with technological assistance. With the right kind of willing office or practice, students could gain expertise/academic credit, perhaps even for helping to strategize the digital alternative or work-around. Whatever system the students helped structure and test could then be used for others in the future—e.g., to help include patients' remote family members in health-care discussions. But it all goes back to students being ready and willing to take ownership of an educational situation instead of passively acquiescing to it. Is that the essence of problem your work is trying to address?

Ted Dintersmith: I've talked to many college seniors, and I've asked them what I think is a good question: "If you wanted to, what career path would you create for yourself?" They look at me and—whether they say it, or if it's just in their facial expression—their response is, "That's like, you mean … that's *an option*?" Imagine making that option a *reality* for them instead of just jumping through all these hoops—and they're really great hoop jumpers, right? Of course they are, because that's what we value in our current educational system—even at the college level. We want the most agile and speedy hoop jumpers we can find. But then they get to senior year, they go to the Career Services office, they sign up for interviews, and I think they often end up in jobs they don't really want. They're not that happy doing them, and they've lost a chance to discover a greater purpose and mission in the process.

Kaley Carpenter: Another concern in *What Schools Could Be*,[1] your most recent study of K-collegiate education reform, is the connection between American education and civil society. In addition to equity in education, you explicitly mention the 2016 election as revealing other deep fissures in our country, "[a] society breaking down as it struggles to analyze critically, to debate thoughtfully, to see seek and value truth, a civil society that's beginning to fracture."[2] It's now four years later, in 2020, after six months of this pandemic, an economic recession, civil unrest that is on par with what erupted in the 1960s, and with another presidential election coming. What would you like to see in education to help heal our civil society?

Ted Dintersmith: Are we setting goals and policies for schools to really launch students into lives of purpose, or are we putting them through a hamster-wheel type of experience that largely ranks them on the basis of their ability to perform certain capabilities, certain tasks, that really bear no relationship to what will make them successful as an adult? I'm firmly convinced it's the latter.

I visit a lot of places. I interview a lot of people. I observe a lot. And the reality is that, for the most part (it's always difficult to say this to somebody in higher education), school is about preparing students for test taking and for more school and not for preparing students for what they're going to encounter in life. I believe that we are impairing their future by doing this.

When I've talked to students who are crushing it academically, there's a sense of emptiness and discontent they have, because they feel like they're doing a lot of things they don't care about. And it's there when I've talked to the other 90% of students who are not viewed as gifted

intellectually—who, in addition, have heard year-in and year-out that they are not "one of the smart kids." It's a gross injustice to the futures of essentially all of them.

One of my high school classmates said, "I hated school. School told me I was really dumb. I got terrible grades. It was pure misery." Now he's a master glassworks blower with a store in Massachusetts and an amazing portfolio of artwork. Even without a college degree back then, he at least could graduate high school and scramble and find his way forward. It's much harder to do that today. When you start taking away what there was back then when I went to high school—shop classes, home economics—courses that are largely gone because they're not the "right thing" to have today—it is hard to see how there are still a lot of hands-on endeavors that students can do.

One of the things I push for at the middle school, high school, college, community college level—you name it—is this: out of all the time students are putting into studying, could we peel off some of it so that they develop a proficiency that creates a kind of a safety net for a career afterwards? If ten year-olds in West Virginia are getting good at something that would let them make three-times minimum wage, then it stands to reason that years of non-stop studying is *not* the only way to economic or vocational success. I'm a big advocate for the liberal arts. You could be a philosophy major at Villanova—I actually like young adults with the self-confidence to pick a major with which everybody else says you could never get a job. Be a philosophy major, but then minor in copy editing, or fact-checking. Tie an intellectual passion with a minor that's a hirable proficiency so that you're not working at Starbucks, so that you're doing something you find reasonably fulfilling, that's aligned with your passions, so you can support yourself and make a contribution in the labor market while still having time to pursue your interests without asking the daily, dreaded question, "Can I actually feed myself and my family?" That should not too much to ask of collegiate education.

Yet I inquired of a former college president, "What if you just offered one course with pragmatic skills, like how to master Excel spreadsheets or Salesforce.com—one course out of forty, or 2.5% of a student's time at college, to get good at something that, Day One when they're hired, they've got something that qualifies as a skill?" The answer was, "That's a great idea, but I think my faculty would run me out of this office if I brought that up." The message was, "Far be it from us to stoop to the level of a pedestrian employment branch. *We* are pursuing lofty goals." But when students

spend four years and $75,000 to $300,000 to get what is essentially a paper certificate, it would be nice if they were good at something and, on the first day after graduation, they could hit the ground running. Two and a half percent of credit hours amid the 97.5% of time dedicated to lofty goals doesn't seem to me like an outrageous request.

Back to the question about how this all connects to civil society. I find that not many talk about it in this context, but if people put their faith in education to help them get ahead *and don't see that happening*, then kids leave high school, leave community college, leave college without a single proficiency that the adult world values, and they just feel demoralized because they're unemployed or they're about to be unemployed. They don't see a great way forward; they don't feel like their child will have the same chances as the child of someone who is wealthy. What do they do? I wrote before the 2016 election that they'd be willing to throw grenades into the ballot box.

The last blended poll said 38% of adults in America think that the current administration has been effective in dealing with the coronavirus. But when every other developed country in the world is showing six, eight, ten deaths a day, and we're showing 1,200; when every other developed country in the world has schools reopening safely, and our school districts are afraid to; when the *per capita* adjusted death rate for the United States versus any other developed country in the world is running fifteen times or worse—that's evidence. That's data. Those aren't subject to personal interpretation. The fact is that, six months into it, we've failed and other developed countries have largely succeeded in protecting their citizens, but polls show that almost 40% of adults in America report that we've done a good job of dealing with the coronavirus. Our websites all say in our schools—high schools, colleges—that we are to teach our students to weigh evidence to think critically, to deal with complex information. But if we can't look at data and make responsible, logical conclusions, then something needs to change.

Kaley Carpenter: If we're concerned about equipping students not only to understand the complexities of assessing our country's pandemic response, but also to navigate the pandemic's changing economic and educational landscape, then it's going to take agile faculty as well, right? During the onset of the Covid-19 pandemic, here at Villanova, all faculty were offered multiple training opportunities and resources for on-line teaching within days of the announced closure of regular classrooms, and the majority of classes were successfully conducted through web platforms the very next week. So there's evidence of a concerted faculty effort to switch delivery methods

and begin offering quality on-line education essentially over a weekend. But a statistical minority of faculty had serious difficulties with the adjustment, feeding stereotypes that what is taught inside college classrooms—and, now, how it is taught—fails to meet the needs of the world outside. How can we change this at the university level?

Ted Dintersmith: You just mentioned statistics—let me give an example of how inertia in teaching like you describe has parallels in college admissions. I gave a talk a couple years ago to about 250 college admissions heads. I asked, "Would anybody in the room prefer a student who had taken statistics over calculus?" No one said yes. So, I replied, "You know, I've spent six years trying to find one adult in America—just one—who uses what's taught in high school calculus. The answer is that no one does." Mind you, I've been the lead author on published physics papers and 1975 and 1976. Back then, you *had* to do these integrals by hand. So I understand that calculus used to be something important—just like it used to be important to be able to drive a stick shift. It used to be important to know how to use the slide rule. In the 1940s, you couldn't be an engineer if you didn't know how to use a slide rule. We don't teach kids to use a slide rule today, but we still teach them to do integrals by hand.

So I say to the room of college admission heads, "Nobody uses calculus. But statistics is an *enormously* powerful career door-opener. It's essential for being an informed citizen, and it enters into almost every personal decision you make (aside from whom you fall in love with and marry), like investments and healthcare. So, I just need to understand how you can look yourself in the mirror every morning saying, 'I want kids taking something no one uses,' when, generally, the consequences of that is they don't take statistics, which *is* vital for career citizenship and personal decisions." The college admissions heads' response? It said it all, I think: "The smart kids today are taking calculus. It's an easy, convenient way for us to rank them against each other."

So, we care a lot more about ranking kids and care nothing about whether they're working on something that's meaningful or will help them as adults. Instead, we should care about kids working on what *will* actually benefit them down the road in adult life. Until we do that, we live in this world of AP courses and GPAs and kids jumping through meaningless hoops.

Kaley Carpenter: Where else have you seen the pandemic reveal the limits of secondary and collegiate education that you've documented in your books and film? Where is the pandemic

opening up new possibilities of convincing others that there's a better way to teach and engage students?

Ted Dintersmith: I circle back to the places I wrote about in *What Schools Could Be*, which are schools that intentionally worked hard to empower kids to set a lot of their learning agenda, to equip kids with the skills to manage their own learning and to draw on resources as needed. They get kids comfortable and actually eager to take on bold initiatives that cut across disciplines, that deal with lots of ambiguity, and that will undoubtedly lead to setbacks and dead ends. Their students take those on nonetheless and just persevere until they've completed something that they're proud of, something that they can explain and present to others. These are places of student-driven learning, or taking on authentic challenges that, in some way, shape, or form, make their world better. When I connect back with them and ask, "How's it going during the pandemic?" their answers are always the same: "There are issues that are real hardships, particularly for kids in poverty. They miss their friends. They miss being with other people. They miss after-school. But they're learning as much—or more—than they ever did."

When I talk to other educators who are more in the command-control vein of education, expecting students to be on the receiving end of the lecture, taking notes, and cram-jamming for a test, they say, "Oh, my God! Nothing's working! Distance Learning is an oxymoron! It was hard enough to keep their attention when they were in front of us. Now that they're at the other end of a Zoom screen, it's impossible."

I use the familiar analogy: the schools that viewed their job and responsibility as teaching kids how to fish suddenly find that, if the kids can't fish in their normal fishing hole, then they're finding different fishing holes, and they're still fishing. The schools that focused on merely feeding kids fish found that not only was it hard to make them eat fish in person, but it's also very few kids who want to eat virtual fish now at all. There's just a wide disparity. We've talked about all sorts of gaps in education, but I would say that this pedagogy gap, this gap in learning experiences, is just sky high right now.

So one of the things we're working quite intensely on is to try to get some resources available by the middle of September. In some places, kids are coming back to school, and maybe they'll be

there all school year … but maybe they won't. If I were betting, I'd say that, for most kids who restart school in person, it's just a matter of weeks before they're all sent home.

What do you do during those weeks? Do you say, "Oh, my gosh! They didn't eat as many fish as we wanted them to eat in the spring. Let's make them gorge out on fish this fall!" Or do we say, "Now's our window of opportunity to help them learn how to fish—because not only will that be great for them if, in fact, we close and it's all remote. Not only will that be great if we open partially. It will be great if we open fully—and it will be great for them as adults."

To me, that's the opportunity: teaching kids how to fish versus jamming fish down their throats. Ideally, I'd like it to be *better* fish instead of worse fish. I've got strong views on that—on what can *really* be taught in grades K through 16. But how often do we actually ask kids, "What do you want to learn?" How often do we then respond with, "We're going to empower and support you to learn that. We will give you credit for what you learn if you can convince us you really made a contribution and mastered what's behind that contribution."

Kaley Carpenter: *The New York Times*' columnist David Brooks watched your film, "Most Likely to Succeed," and criticized what he described as project-based education's sacrifice of factual acquisition or content for developing lots of team work, grit, and self-confidence.[3] He argued that facts, definitions, and concepts are the foundation upon which pattern recognition, usable knowledge, paradigm shifts, and finally wisdom is formed. How would you respond to someone who sees this tension or trade off in *What Schools Could Be*? In it you write, "It's important to distinguish between teaching someone a subject and helping them to learn to think like an expert in the field. Should our kids study history facts or learn to think like a historian? Memorize scientific definitions or learn to think like a scientist? Answer canned questions about a poem, or learn to think like a literature critic? Drill on math microtasks, or learn to think like creative mathematician?"[4] Don't you need both?

Ted Dintersmith: Yes, you need content, but it starts with engagement. And the engagement leads to the content acquisition. But when you reverse that—which traditional education does—and you say, "No, you need years and years of factual acquisition. And, by the way, even though we're going to put years into that, and we're going to build our entire testing infrastructure around it, we're never really going to find the time or the money to just check to see if it's retained (despite

the fact that the College Board has a billion dollar annual budget). Dartmouth, to their credit, did this kind of testing. In an experiment, every freshman who had taken AP psychology was, within that same year, given the Intro to Psychology final exam the first day of the class, and they all failed it. Their scores were compared to with other Intro Psych students who never had any prior psychology. There was no difference in performance. It was as though they had never taken AP psychology.[5]

When I interview most high school kids who've taken history (particularly AP U.S. history) and ask them, "What did you learn?" their answer is, "I learned I never want to take history again." Do they remember anything? Why is it two-thirds of Americans can't name the three branches of government? Despite the focus on content, they didn't learn anything. They just went through the motions. But if you'd said instead, "Learn how to think like a historian and start with capturing the history of your community, or the history of somebody you admire—it could be a family member, somebody in your community, or somebody famous. Pick something of interest and do the research and communicate to us, not just the facts of that history but how that history influences them and the world around them—and you—to this day."

Eighth graders in Fargo, North Dakota are required take state history. Some of the students I've met there decided to study Fargo's historic downtown buildings, and they ended up creating documentaries for them, building a website to house those films, learning graphic design for signage and QR codes (for display in the building themselves), and submitting their work to the Fargo Film Festival. Were they learning the same sets of things they would have learned in an eighth grade class on the history of North Dakota? No. But if those students who took the history in North Dakota don't remember any of it, and these kids are suddenly really interested in history, because each building served as a window into it …. My bet is that, if in a year you had the students who took the traditional North Dakota history class retake their final, and you compared their scores with the downtown Fargo building film makers, the Fargo kids would do as well or better. So, I don't think that just because it's experiential means no content.

Kaley Carpenter: So, what, exactly, do you think that colleges and universities should consider in admitting students? Do you think personal essays are important? What are some of the alternatives?

Ted Dintersmith: I'm a big supporter of a different way to apply to colleges, called the Coalition for Access, and in theory it looks at real examples of student work.

When I was in business, I didn't care where anybody went to college. I just asked for three writing samples that would tell me what I should know about you. I know how long it takes to read those writing samples: it does not take very long. And if somebody's best work that he or she sends you isn't very good, then you know your answer. If it's really good, then it's interesting and fun to read. I believe that colleges would be better off saying, "Show me you at your best." It could be a critical analysis of literature; it could be interesting interpretations of history. It could be a science experiment. It could be a useful application of math. It could be something interdisciplinary. It could be an initiative—it could be anything. If the world values young adults for being creative and distinctive, then college admissions should value them for creative and distinctive things they've done, that they've cared about, and that they're proud of.

But if instead it's all around AP test scores and SATs and grade point averages, then I think the message is: "Crank out a bunch of numbers you're not very excited about in a process that's required to do well in that task, and that task alone."

It really is a question of whether we care more about the data that makes it easy to rank students against each other, or whether we care more about powerful, deeper ways to learn and a sense of purpose in the education.

Kaley Carpenter: How would colleges and universities gauge academic ability in STEM fields, for instance, without standardized tests?

Ted Dintersmith: I think the standardized test tell you *nothing* about STEM abilities. Philip Sandler, a tenured professor at Harvard (which most people think is the best school in the world) was skeptical that students there or at MIT had learned much useful science or engineering. Now, they've all taken AP Physics and gotten a five, taken AP Calculus BC and gotten a five, gotten 800 on their math SATs, and a 4.5 or higher AP-adjusted GPA. They get to MIT, they're there, taking a bunch of engineering courses. To make his point—this is what the video shows[6]—on graduation day, student after student is offered a light bulb a wire and a battery. They're asked, "Can you light up a light bulb with a battery and wire?" And some of the students are indignant. But then student after student can't light up the light bulb with a wire and battery.[7]

The point that Professor Sandler wanted to make is this: students are memorizing Coulomb's Law. They're memorizing Kirchhoff's Law. They're facile with manipulating algebraic equations, but they have no idea how things work in the real world. The same professor said that MIT used to take a lot of kids from rural America—the kids who worked on farms—because they actually do a lot of great engineering there. If you could take apart a tractor engine, and put it back together, then that's a great leading indicator for being a fabulous engineer. But—back to college admissions—while MIT used to accept lots of kids from farms, today they take almost none, *because those kids aren't drilling on AP courses and SATs.* I think that's an enormous missed opportunity for many, many kids in our country. I think it's sort of a false signal about what it actually means to understand science and engineering issues. So, I'm a big advocate for alternative, real-world ways to find meaningful work in this world. If you're interested in being an electrical engineer, then get an internship with a master electrician. Don't do test prep for the AP Physics class.

Kaley Carpenter: As a counterargument to getting rid of standardized tests, do you think there is a way to re-create the tests to be able to evaluate more than just a narrow view of what academic-readiness is?

Ted Dintersmith: This gets back to the question of personal essays**.** You're trying to get at something important, something nuanced. If it's nuanced, then it's easy to generate the questions, and it's very hard to grade them. So, let's start with something fairly simple that you think would be a useful indication of a student's potential: for 12 years, it was the SAT written essay, from which came 800 out of the test's 2400 points. The reality is that it's actually pretty easy to write an essay about something you know. Students would take the essay, and they'd write it with proctors in the room. And I think it was actually a really good thing to do.

The problem was that the SAT and the College Board decided they had to actually give a number to that essay. So you think that your essay is going to be graded by some long-term, experienced English teacher who's going to spend thirty minutes on your essay and come up with a really nuanced evaluation: "Oh, gosh! I'm agonizing, but this is somewhere between a 685 … and a 705. I'm going to give it a 695 and then spend a half an hour on the next one."

Well, that's not at all how it's graded. People have looked into how it's actually evaluated. What did the College Board do? They hired unemployed people off of Craigslist. They were compensated by the number of essays they grade per hour. They will tell you that they don't even read the words; they scan them. What do they look for? They look for four to five paragraphs, four to five sentences per paragraph, varied sentence structure, and some vocabulary words. If you do that, you're at 750 or higher.

And people have debunked those tests by having really great writers take them and write pure gobbledygook. They write something that's completely incoherent but with five paragraphs, four-to-five sentences per paragraph, varied sentence structure, and some unusual vocabulary words. Sure enough, they get in the seven hundreds every time. So it's the grading and the evaluation of anything that's important in life that gets hard. This session is showing us a little bit of what most adult organizations say they value: employees who can ask really interesting questions. Well, how much of school is around asking really interesting questions? How do you really put a score on questions that are interesting? That's very hard. It's nuanced. You can have an opinion about whether somebody else's question is interesting, but if you try to turn it into a standardized test, it gets very difficult.

The other issue with the standardized test is the fact that the only way you can standardize it is if everybody's studying the same material to take the same exam, which takes [out] all the ability to go deep into something, to explore it in your own way, to be creative. If you talk to any SAT test tutor, which I do, there are two big pieces of advice they give out. First, never do anything unusual, creative, or out-of-the-box—that's too risky. Think formulaically, because it's designed to be scored by a computer. So, the advice is to think like a computer. The second piece of advice is: if you have a question that's really hard, or that's going to take you a long time to figure out, skip it. I don't know, but I think that kind of advice makes for some pretty miserable life lessons.

Kaley Carpenter: Speaking of those life lessons, especially in our Covid-19 era, how is the pandemic changing the way colleges will evaluate students in the future, especially with regard to these standardized tests?

Ted Dintersmith: Fortunately, I think the grip of the SAT and ACT is starting to loosen. I think that's encouraging. The University of California system—UCLA, Berkeley—which gets more

applications in any school in the country (over 100,000 a year) just announced they're not using SATs or ACTs anymore.[8]

If, in fact, the world is begging for people who are creative, for people who have distinctive, unusual strengths, then that seems to me to be sounding alarm bells about how much we want to adhere to a standardized education. College admissions could (1) stop saying they want every student to take the same thing in order to compare them, and (2) start saying, "We want students who can blow us away with creative distinctive work."

The argument against this is that it would cost money. Don't tell me that that would cost some money, because if the future of civil society depends on that, then spend the money. Stop spending the millions of dollars dictated by the automatic mailing lists generated from the PSATs for sending out all these brochures to get more people to apply so you can turn down more people and look more selective. Instead, spend a little bit more money on evaluating real-life examples of student ability. Spend admissions money looking more carefully at what students actually created, invented, developed, or made happen that wouldn't have happened otherwise. That's a more authentic way to evaluate a person's potential.

But I also think it makes for a more authentic high school experience. I think college admissions has a lot of work to do, because they're not a helpful agent in this process. I think the fastest way to change the high school experience today is to have colleges change their application process. If colleges said, "We're looking for X instead of Y," then K through 12 schools would start doing X instead of Y. They could indeed—just like that—change the high school experience. This is why I go to great lengths to try to encourage colleges to think about it that way.

So, I think not only is Covid-19 changing standardized testing, I think it's going to make a lot of people step back and ask, "What is the essence of school? What should we be doing? How should we engage with students in their learning? Should we be giving them more voice and leading the way, choosing what they want to learn, and evaluating more on creative and different things they create instead of taking the same test?" And I think if that happens, then that's all to the good.

Notes

1. Ted Dintersmith, *What Schools Could Be: Insights and Inspiration from Teachers across America* (Princeton: Princeton University Press, 2018).

2. Ibid., 18.

3. David Brooks, "Schools for Wisdom," *The New York Times* October 16, 2015, https://www.nytimes.com/2015/10/16/opinion/schools-for-wisdom.html.

4. Dintersmith, *What Schools Could Be*, 70.

5. Alexandra Tilsley, "Advanced Placement, Not Credit," *Inside Higher Ed* January 18, 2013, https://www.insidehighered.com/news/2013/01/18/dartmouth-end-use-advanced-placement-scores-credit.

6. Matthew Schneps, "Can We Believe Our Eyes," (Annenberg/CPB Math and Science Project and Harvard-Smithsonian Center for Astrophysics, 1997), https://www.learner.org/series/minds-of-our-own/1-can-we-believe-our-eyes.

7. "Improving Math and Science Education So That No Child Is Left Behind," *Hearing Before the Subcommittee on Research Committee on Science* (House of Representatives, One Hundred Seventh Congress, First Session, May 2, 2001), Serial No. 107–27, http://commdocs.house.gov/committees/science/hsy73337.000/hsy73337_0.HTM. In his testimony, Philip Sadler, Ph.D., Director of the Science Education Department at the Harvard-Smithsonian Center for Astrophysics, describes the television program from which the above video above is excerpted. "Minds of Our Own" aired as part of the Center's television programming on the Annenberg/CPB Channel, with the goal of providing professional development for elementary and upper-level science teachers. Sadler notes the surprising results from the Center's interviewing Harvard and MIT students regarding their understanding of basic science: "Only half of MIT students when given a light bulb and a battery and a piece of wire can make the bulb light up" (31). A second documentary produced by Harvard-Smithsonian Center for Astrophysics and the Annenberg Foundation, "A Private Universe," shows Harvard graduates, faculty, and alums struggling to correctly describe what produces the earth's seasons: Matthew Schneps, "A Private Universe" (Annenberg/CPB Math and Science Project and Harvard-Smithsonian Center for Astrophysics, 1989), https://www.learner.org/series/a-private-universe.

8. See the school system's admission page at https://admission.universityofcalifornia.edu/admission-requirements/freshman-requirements/exam-requirement/.

9. Thanks to Margaret Casson, Ryane Farrell, Aidan McInerney, Colt Schnabel, Shannon Smith, and Mason Wesley for their assistance with this interview.