Mapping the 21st Century Classroom

Some people predict that technology will render teachers useless. I cannot disagree more strongly.

By Thomas Maffai

At the Miami high school where I used to teach, I would greet my ninth grade world history students on the first day of school with an intimidating task, even for many adults.

"Close your eyes and listen carefully," I'd say. "I want you to visualize the world. The entire world. Every city, country, continent. Every river, lake, ocean. Every mountain, peninsula, island. Create a detailed picture in your head. What does the world look like to you? Okay, now open your eyes. Start drawing what you see. Your pencil should be moving for the next 20 minutes, without stopping. There is no wrong answer. Label everything."

For 20 minutes I would watch them struggle through this task. I've traveled widely and am obsessed with maps, and I get anxious just thinking about putting pen to paper. Many of my students were living in poverty and rarely left their neighborhood. I can only imagine how they felt.

Without fail, every time I presented my students with this exercise, they needed encouragement to actually do it—no matter their mother tongue or country of origin. They were afraid of looking dumb. But I was persistent.

This exercise set the tone in my classroom and sent the message that making mistakes is precisely how we will learn. Each of us brings our own perspectives and biases, and these too shape the way we understand the world.

Through this activity, and others like it, I developed personal relationships with my students, as did they with each other. These connections helped us build a classroom culture in which my students celebrated diversity, took risks, and felt ownership over their own learning—conditions necessary for them to grow both academically and socially.

Yet belief in the value of classroom learning built on human connection appears to be slipping. In the recent *Atlantic* article The Deconstruction of the K-12 Teacher, Michael Godsey presented a harrowing prediction of what teaching and learning will soon look like. "The teacher should transfer from being a 'sage on the stage' to a 'guide on the side,'" Godsey wrote, arguing that the teachers of the past needed to know content, while teachers of the future merely need to know *how to access* content.

"When kids can get their lessons from the Internet," Godsey asked, "what's left for classroom instructors to do?"

It's an insulting question. Beyond serving as a warm body that ensures the Internet router is plugged in, teachers in technology-heavy classrooms need to do more than ever to ensure their students' success. To meaningfully integrate technology into classroom instruction, teachers need to strategically combine virtual instruction with in-person activities and discussions. Great teachers know when to use each. They encourage students to take risks. They collect, analyze, and act on data. They pick up on students' non-verbal cues and react accordingly. And they know their content inside and out, whether it's Schrodinger's cat or a world map.

In Godsey's vision of a technology-centric classroom, my students would look up an accurate map on the Internet, after which they would watch a TED talk by an Ivy League geography researcher. I would not be in the room, instead replaced by a "tech" that made sure students didn't switch their browser tab to the latest Selena Gomez music video. This "guide on the side" would ensure that students had unfettered access to the endless stream of content that the Internet churns out daily—with little regard for quality or rigor.

But such instruction would skip over the purpose of my exercise entirely. I did not want to simply introduce my students to accurate geographic features; rather, I wanted to show them that how we see the world is shaped by our own experience. Many of my students, recent immigrants from Latin America and the Caribbean, tended to exaggerate the relative size of countries like Cuba, Haiti, Dominican Republic, Honduras, and

Nicaragua. The countries they drew were mislabeled, misshapen, stretched, or shrunken. They often confused Russia for China, labeling one, but rarely both. Some drew the state of Florida—their whole universe—with intricate detail, outlining every groove and bump along its panhandle and peninsula, but struggled to draw any other portion of the United States. What they drew was a reflection of themselves; not just their knowledge, but their perceptions. They compared their maps to their classmates' to explore their biases. We then studied the inherent biases that emerge when we attempt to represent a sphere on a flat map. My students discovered the true size of Africa, and soon began to question why they never saw maps oriented with south on the top, instead of north.

The world's best TED talk could not have taught my students that they see the world differently than their classmates sitting next to them. The best "guide on the side" would never have given my students to the courage to start drawing their maps in the first place.

*In Godsey's vision of the future of education, my students would be subjected to a **distinctively passive learning experience** directed not by a passionate, knowledgeable teacher, but by a surfeit of digital content.*

My students would haphazardly click on whatever grabbed their attention, instead of what would truly prepare them to be successful in the future.

The map exercise laid a foundation for my students to become critically thinking historians and citizens of the world. We read *Broken Spears: The Aztec Account of the Conquest of Mexico*. We compared descriptions of Columbus' arrival to the West Indies from both Taino Indians and the Spanish. We learned about the slave trade through the memoirs of Olaudah Equiano, one of the earliest known slave narratives. We examined our outdated, dilapidated textbooks provided by the state of Florida with a critical eye for what was included and what was omitted. Through this deliberate curation of rich texts throughout the year, I guided my students —and not from the side—to develop a nuanced understanding of world history.

The increased connectivity of our K-12 classrooms has opened the informational floodgates, giving students and teachers unprecedented access to eye-catching digital resources that are ostensibly superior to, say, a Florida textbook that still references the Soviet Union.

But without a skilled, passionate teacher to curate, sequence, and focus students' attention, the overwhelming availability of digital content can result in information overload and shortened attention span. (On that note, my colleagues at TNTP—formerly The New Teacher Project—which works with school districts nationwide, has developed guidance to support instruction in blended learning classrooms.)

The spike in digital learning software in K-12 classrooms has unlocked a treasure trove of student data that give teachers tremendous potential to transform learning outcomes for their students. Educators now have access to Big Classroom Data. But ultimately these data have little significance unless coupled with vital qualitative information—and acted upon.

The best teachers respond daily to hundreds of subtle, nearly imperceptible, in-the-moment cues. A facial expression, a crack in a voice, a lowering of the eyes, an inflection in a student's tone—these too are data. They give teachers critical information about how and what their students are learning and how to teach them better. Accelerating a student's growth hinges on a teacher's ability to carefully analyze and interpret—not just collect—both the measurable and immeasurable data points and translate them into a plan for learning.

My students' distorted, beautiful maps did not just further their learning. They also offered me an unparalleled qualitative assessment of my students' baseline world history knowledge. While impossible to accurately measure, these too were data. I would pour over their maps to gather every scrap of insight into how my incoming students understood their world.

As higher academic standards roll out across the country, precisely defining college-and-career ready benchmarks at each grade level, my TNTP colleagues and I are finding that a teacher's content expertise actually matters *more,* not less. All great teachers, and particularly those in blended classrooms, need deep content knowledge to thoughtfully curate appropriately rigorous content to ensure that students are exposed to concepts and texts that will prepare them for college. They carefully select and sequence content in a way that cumulatively builds knowledge, expands academic vocabulary, and allows students to access increasingly challenging material. Teachers also need to establish classroom environments where rich conversations can flourish.

If college readiness is the end goal, then we must recognize that not all content is equal; some content will get students there and other content will not. Students are not equipped to know the difference. Great teachers are.

On the last day of school, I would ask my students to visualize the world again. Only this time, after months of instruction, my expectations were much higher. So were theirs. This time, they required no coaxing. They were excited to demonstrate what they had learned, to see the stark contrast between their "before" and "after" mental maps.

Technology can help students fill in the vast blank spaces on their mental maps. But it cannot, on its own, create a safe space that encourages kids to ask tough questions. It cannot push students towards higher-order thinking skills. Blended learning has the potential to serve as a combustion engine for student learning, but the spark of a talented teacher is still necessary to ignite it.

We don't need to "deconstruct" the role of the teacher, as Godsey suggested in his *Atlantic* article. We need to reimagine it as an indispensable component of learning.

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