
How Acellus Is Waking Up Education

Keynote Address

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Acellus National Administrators Conference

Kansas City, Missouri — 2026

The Intro: A Fishing Story

“When I moved to Missouri about a million years ago, I took my five daughters fishing on Lake Taneycomo. Now, Lake Taneycomo is some of the finest trout fishing in America. And I was raised in Provo, Utah, so I knew about catching trout. Or so I thought.”

“All around us, people were reeling in fish left and right. But us? We couldn’t get a single bite. Not one. You can imagine my feelings when my number three daughter looked up at me and said, ‘**Dad... are we ever going to catch something?**’”

“Nothing in my life could have made me more determined. Early the next morning, before the girls were up, I was out on the lake with the man they said was the best fishing guide in the state. Before I even dipped my line in the water, he stopped me. He said, ‘With that eight-pound test line, you will never get a bite.’ See, on the Provo River where I learned to fish, there were so many rapids it didn’t matter. But Lake Taneycomo’s water flows from the bottom of a 300-foot dam — crystal clear and perfectly still. The fish could see my line. I was doing what I had always done, and it wasn’t working... because the conditions had changed.”

“He gave me two-pound test. Invisible. That same afternoon, every one of my girls caught fish. And I was a proud dad again.”

“Now, if I tried to use that little fishing story to explain what’s happening in education today, it would be too small. The problem we face in education is not a ‘change your line’ kind of problem. So instead, I’m going to tell you a story about a woman named Pajet Monet. And I’ll warn you up front — this time, my story is just a story. It never really happened. But it sure makes my point.”

“In this story, Pajet went fishing down at Lake Taneycomo. Now, there’s a limit of four trout per person, and only one of those can be a German Brown. On the day of our story, Pajet was coming in from the lake, her boat loaded with beautiful German Brown lunkers — that means *really* big fish. Waiting for her on the dock was the Conservation Agent.”

“When he saw all those fish, he became outraged. That’s not *socitional*. He was shaking his fist. But Pajet just looked up at him, smiling, and said, ‘**I bet you’d love to know my secret — how I caught so many big fish.**’”

“Well, she had him. He had never in his life seen that many large German Browns. And as an avid angler himself, the temptation was more than he could resist. ‘Be here at ten o’clock tomorrow morning,’ Pajet said, ‘and I will teach you my secret.’”

“The next morning, the Conservation Agent took the day off. He was there by 9:30 — loaded down with fishing poles, waders, tackle box, even a fish net. Then Pajet pulled up in her white Mercedes — that part of the story is true — and climbed out all dressed up, hair done, carrying nothing but a fancy gold lunch pail. She stepped into the boat in her dress and they headed out onto the lake.”

“The Agent baited up and made his first cast. Pajet opened her lunch pail and took out a gourmet sandwich. From the corner of his eye, the Agent watched her every bite. Finally, after a sip of Kombucha, he heard her say: **‘It is time to fish.’**”

“She reached back into that lunch pail and pulled out a stick of dynamite. She lit the fuse. The Agent’s eyes went wide as she tossed it out over the water. A massive explosion — and stunned fish came floating up all around the boat. ‘Just net the big Browns,’ she said calmly, as the Agent began to fume.”

“Now at this point in the story, I need to bleep a few of the words coming out of the Conservation Agent’s mouth, because he was *really* upset. He went on and on about every law she was breaking, every charge he was going to file, everything he was going to do — because *you cannot fish with dynamite. It is illegal!*”

“Meanwhile — Agent still yelling, Pajet perfectly calm, perfectly composed, perfectly *sottofactual* — she opened that lunch pail one more time and pulled out a second stick of dynamite. She lit the fuse. She held it out to the Conservation Agent and said:”

“Are you going to fish... or are you just going to talk?”

“Ladies and gentlemen, that is the question I came here to ask *you*.”

“For decades, we have been standing on the dock arguing about education. We have debated policies. We have passed legislation. We have held summits and written white papers and formed committees. Meanwhile, a generation of children has been floating by.”

“Twenty-two percent. That is the percentage of American high school seniors who are proficient in math. That means nearly four out of five will walk across a graduation stage this spring unprepared for the world waiting for them. If this were an airline, we would ground every plane. If this were a hospital, we would shut it down. But because it’s our schools... we just keep talking.”

“Well, I didn’t come here to talk.”

“Eighteen years ago, I got into Acellus because education was broken. From my training as an engineer, I knew that if I could get inside the problem, I could figure out what was wrong — and then we could fix it. The deeper we went, the more complicated it got. And then came the thing that changed everything — not because it fixed education, but because it broke it so completely that it could never be put back together the same way again. Covid.”

“Covid didn’t just set students back. It shattered the illusion that the old system was working. It proved — beyond any doubt — that doing the same thing, the same way, with the same tools, was never going to be enough.”

“So today, I am not here to have another conversation about what’s wrong with education. You already know what’s wrong. I am here to hand you the dynamite.”

“The question is — are you going to fish... or just talk?”

Vectored Instruction: Finding the Hole and Filling It

“Let me tell you something most people in education already know but almost nobody wants to say out loud.”

“When a student fails a math lesson, we do what we’ve always done. We reteach it. We slow down. We say it again, louder, maybe with different words. And when that doesn’t work, we say it again. And the student still doesn’t get it. So we label them. We say they’re ‘behind.’ We say they ‘lack motivation.’ We say they have a ‘learning gap.’ And then we move on — because the curriculum says it’s time for the next lesson.”

“But here is what we discovered when we got inside the problem. The student didn’t fail because the lesson was bad. The student didn’t fail because they aren’t smart enough. The student failed because somewhere — maybe a year ago, maybe three years ago — they missed something. A foundational concept. A building block. And without that piece, nothing built on top of it will ever make sense.”

“Think of it this way. Imagine you are building a house. You get to the second floor and the floor sags. Something is wrong. Now, what does our traditional education system do? It says, ‘Let’s reteach you second-floor construction.’ They go over the framing again. They hand you the same blueprints. They try a different teacher. But the floor still sags. Because the problem was never the second floor.”

“The problem is a crack in the foundation.”

“And until you go down, find that crack, and fix it — nothing you do on the second floor is going to matter.”

“That is what Vectored Instruction does. It doesn’t reteach the same lesson. It goes down to the foundation. It finds the crack. And it fixes it. Then the student comes back up to the second floor — and this time, the floor holds.”

“Now let me show you *how* it works, because this is where it gets extraordinary.”

“When a student answers a question wrong, most systems just mark it wrong and move on. Acellus does something completely different. It looks at *which* wrong answer the student chose. Because every wrong answer tells a story.”

“We discovered, through years of research, that when students get a problem wrong, large percentages of them give the *same* wrong answers. Not random guesses — predictable, patterned errors. And when you study those patterns, they reveal the specific foundational concept the student is missing.”

“We call this technology Prism Diagnostics. Think of it like a prism. When you pass white light through a prism, it separates into a spectrum of distinct colors based on different wavelengths. In the same way, Prism Diagnostics takes a group of students who all got the same question wrong and splits them into distinct groups — each group revealing a *different* underlying deficiency. Same wrong answer on the surface. Completely different reasons underneath.”

“And here is the breakthrough: once the system identifies the *specific* hole in a student’s understanding, it responds instantly — right at that moment — with a customized lesson designed for that precise deficit. Not a generic review. Not a one-size-fits-all remediation. A targeted intervention, built to fill that one crack in that one student’s foundation.”

“And Vectored Instruction doesn’t just look at the current lesson. When a foundational deficiency is diagnosed, it goes as far back as necessary. If a tenth grader is struggling with algebra because of something they missed in fifth-grade fractions, Vectored Instruction reaches back to fifth grade, builds a targeted bridge of instruction to close that gap, and then brings the student forward again — all while keeping them enrolled in their grade-level course, on track for credit, on track for graduation.”

“This is critical. In the traditional system, if you’re behind, you stay behind. You get pulled out. You get put in a remedial class. You lose your place. And the message the student hears is: *you are not good enough to be where you’re supposed to be.*”

“Vectored Instruction sends a completely different message. It says: *we know exactly what you’re missing, we’re going to fix it right now, and you’re going to keep moving forward.*”

“Now think about what this means for the teacher. Picture a seventh-grade math class. Half the students are performing at a fourth-grade level. The other half are at a sixth-grade level. The curriculum says: teach seventh-grade math. What does that teacher do?”

“She teaches to the middle — and loses everyone. The top students are bored. The bottom students are lost. And the teacher goes home exhausted, demoralized, feeling like a failure. But she didn’t fail. *The system* failed her. It put her in an impossible situation and told her to make it work.”

“With Vectored Instruction, every student in that classroom is getting instruction at exactly the level they need — not where the curriculum says they should be, but where they actually are. The gaps get filled in real time. The students move forward at their own pace. And the teacher is finally free to do what only a human teacher can do — mentor, inspire, lead discussions, and give attention where it matters most.”

“Now, I know what some of you are thinking. This sounds good in theory. Does it actually work?”

“Let me tell you about the Community School of Holy Angels. Holy Angels is a school dedicated to students in special education — students with severe learning challenges. The students that everyone else had given up on. They were selected as one of the first schools in the nation to pilot Acellus Gold with Vectored Instruction.”

“In one school year — *one year* — math scores rose by up to forty percent. English scores improved by twenty-four percent. These are students in special education. The ones the system said couldn’t keep up.”

“One student at Holy Angels came from a non-English-speaking household. She was on the autism spectrum and struggled to communicate. After working with Acellus Gold and Vectored Instruction, she began speaking fluently in English. That is not a statistic. That is a child whose life was changed.”

“That is what happens when you stop guessing where a student is struggling and start *knowing*. That is what happens when you find the hole and fill it.”

“For eighteen years, the question that has driven everything we do at Acellus is this: *Why can’t this child learn?* And what we discovered — over and over and over again — is that the child *can* learn. The child wants to learn. But somewhere along the way, a piece went missing, and nobody went back to find it.”

“Vectored Instruction goes back and finds it.”

“You know, I started this talk with a fishing story. I told you about a man from Utah who couldn’t catch fish in Missouri because he was using the wrong line. The conditions had changed, and he had to change with them.”

“Education is no different. The conditions have changed. The students sitting in classrooms today are not the same students who sat there twenty years ago. The gaps are deeper. The challenges are greater. And the old tools — the old line — cannot catch these fish.”

“Vectored Instruction is not an incremental improvement. It is not a new textbook or a new teaching method or a new policy. It is a fundamentally different way of reaching students — one that starts by understanding exactly where each child is, goes back as far as necessary to build what was missing, and then brings them forward.”

“This is the dynamite.”

The Gold Store: Making Learning Feel Like Winning

“Now I want to talk about something that every teacher, every parent, and every superintendent in this room has wrestled with. Motivation.”

“You can have the most brilliant curriculum ever designed. You can have Vectored Instruction finding every gap and filling it perfectly. But if the student doesn’t *want* to sit down and do the work, none of it matters. And this is the honest truth about where we are today: we are competing for our students’ attention against some of the most sophisticated engagement systems ever built.”

“Think about it. Video games. Social media. Streaming platforms. These are multi-billion-dollar industries with armies of engineers whose entire job is to make sure your child cannot look away. They use reward loops, achievement systems, points, levels, streaks — everything designed to trigger that feeling of *I did something. I earned something. I want to keep going.*”

“And then we send that same child to school and say, ‘Work hard for a letter grade you won’t see for six weeks.’ Is it any wonder they check out?”

“So we asked ourselves a question: what if school felt more like winning? Not dumbed down. Not turned into a game. But what if the same psychology that makes those apps so addictive — the feeling of earning, achieving, and being rewarded for effort — could be harnessed for *learning*?”

“That is the Acellus Gold Store.”

“Here is how it works. In Acellus Gold, students earn Gold Credits for mastering concepts, completing assignments, and demonstrating real academic achievement. The harder they work, the more they earn. And those credits are not abstract. They are not a number on a screen that means nothing. Those credits can be spent in the Gold Store — a real store, right there in their school, stocked with things students actually want. Hoodies. Backpacks. STEM robots. School supplies. Acellus gear they can wear with pride.”

“Now, I want you to picture this. A student walks into school wearing an Acellus hoodie she earned by mastering her math course. Her friend sees it and says, ‘How did you get that?’ And she says, ‘*I earned it.*’”

“That is a completely different conversation than anything that happens with a report card. That hoodie is visible. It is tangible. It is a badge of honor. And suddenly, the culture shifts.

Working hard in school becomes something to be proud of. It becomes something your peers notice. It becomes *cool*.”

“I have watched this happen in school after school. Students who were disengaged, who had given up, who saw no point in trying — they start earning Gold Credits and something changes. It is not just the reward. It is the *recognition*. For the first time, the system is telling them: your effort matters. Your hard work has value. And here is the proof.”

“But here is what really matters about the Gold Store. It is not about hoodies and backpacks. It is about teaching students a fundamental life lesson: *effort produces results*.”

“In the real world, when you work hard, you get rewarded. When you develop a skill, opportunities open up. When you show up and give your best, good things happen. That is how life works. But school — traditional school — has never taught that lesson. You work hard for twelve years and what do you get? A piece of paper at graduation. Maybe a handshake.”

“The Gold Store creates what the apps and the games have always understood: a real economy of achievement. The currency is effort. The reward is immediate. And the lesson — that what you put in determines what you get out — stays with that student for the rest of their life.”

“Some people hear about the Gold Store and think it sounds like bribery. Let me tell you what bribery looks like: bribery is paying someone to do something they would never do on their own. What we are doing is *recognition*. We are telling students that their work has worth. That they have earned something real. And if you think that’s bribery, I’d ask you: do you go to work without a paycheck?”

Gold Spark: The 40/20 Revolution

“Now, everywhere I go, I hear the same question: ‘Is Acellus going to replace teachers?’”

“Let me be very clear. No. And that was never the point.”

“There is a false choice being presented in education today. On one side, you have people saying technology is the future — put every kid in front of a screen and let the software handle it. On the other side, you have people saying technology is the enemy — get back to basics, get back to the chalkboard, and let teachers teach.”

“They are both wrong. The answer is not technology *or* teachers. The answer is technology *and* teachers, working together in a way that has never been possible before. And that is what Gold Spark is.”

“Gold Spark Learning is built on a simple, powerful structure: forty minutes of personalized digital instruction through Acellus, followed by twenty minutes of live, teacher-led Special Lessons. Every class. Every day. We call it the 40/20 model.”

“In the first forty minutes, every student in the classroom is learning at their own level, at their own pace. Vectored Instruction is finding gaps and filling them. Prism Diagnostics is identifying deficiencies in real time. The Gold Credits system is keeping them engaged and motivated. Every child is getting a truly personalized education — something that has never been possible in a traditional classroom with one teacher and thirty students.”

“Then the teacher steps in for twenty minutes. But here is what makes this different: those twenty minutes are not the same twenty minutes the teacher used to have. In a traditional sixty-minute class, the teacher lectures for forty minutes to the whole group — one speed, one level, take it or leave it — and then has twenty minutes left over for individual help. Twenty minutes for thirty students. That is forty seconds per child.”

“In Gold Spark, the equation is flipped. The technology handles the personalized instruction for forty minutes. Then the teacher steps in for twenty minutes of what we call Special Lessons — and those twenty minutes are *powerful*. Because now the teacher is not trying to deliver content to thirty students at thirty different levels. The content has already been delivered. Individually. Personally. The teacher is free to do what only a human teacher can do.”

“Lead a discussion. Run a project. Do a hands-on experiment. Look a struggling student in the eye and say, ‘I see you working hard and I’m proud of you.’ Facilitate debate, build critical thinking, spark curiosity, model what it means to be a thoughtful human being. *That* is what teachers were born to do. And for too long, the system has buried them under content delivery and test prep and paperwork.”

“Gold Spark doesn’t take teachers away from students. It gives teachers *back* to students.”

“These twenty-minute Special Lessons are designed to go deeper. The teacher uses Acellus-provided resources — lesson outlines, projected videos, discussion guides — to lead collaborative learning experiences. Project-Based Learning. Peer discussions. Hands-on demonstrations. The kind of higher-order thinking that you simply cannot get from a screen.”

“And because the teacher has real-time data from the digital phase — she knows exactly what her students understood and where they struggled — those Special Lessons are not one-size-fits-all. They are targeted, informed, and effective.”

“Let me put it plainly. In a traditional classroom, every student gets the same instruction whether they’re ready for it or not. In Gold Spark, every student gets forty minutes of instruction tailored exactly to their level — plus twenty minutes of the best thing in education: a real, live, caring teacher giving them her full attention.”

“That is not replacing teachers. That is honoring them. It is saying: you are too valuable to waste on tasks a machine can do better. We are going to free you up to do the things that *no* machine will ever do.”

“Teachers are not the problem in education. Teachers are the *answer*. But they need the right tools. Gold Spark gives them those tools.”

Why I Do This: The 1966 Moment

“I want to take you back sixty years. 1966. A high school senior in Utah is working in his garage. He has an idea — an idea that everyone around him says is impossible. He wants to build a car that runs on hydrogen.”

“Now, his father is not a rich man. But his father believes in him. And his father does something extraordinary: he gives his son a Model A Ford. Not a new car. A broken-down Model A. And he says, essentially: if you believe you can do this, then show me.”

“That teenager took that Model A, rebuilt the engine to run on hydrogen, entered it in the International Science Fair, and won the Gold and Silver Award. A kid from Utah with a big idea and a father who believed in him.”

“That teenager was me.”

“I tell you that story not to talk about hydrogen or science fairs. I tell you that story because it explains everything that has happened since.”

“From hydrogen to computers. From computers to cryptography. From cryptography to education. The through-line of my entire life has been a single conviction: *knowledge is the most powerful force on earth, and every child deserves access to it.*”

“In 1966, a father gave his son the tools and the belief to do something extraordinary. That is what education is supposed to do. It is supposed to take a young person, hand them the tools, and say: I believe you can do something great. Now show me.”

“But for millions of children in America today, that is not what is happening. They are sitting in classrooms where nobody knows what they’re missing. They are falling further behind every day and being told it is their fault. They are losing faith — in school, in themselves, in the idea that education can change their life.”

“I am the father of thirty-six children. Every single one of them has been educated. Every single one of them matters to me more than any business, any invention, any award I have ever received.”

“I know what it means to worry about whether your child is getting the education they need. I know what it means to sit at a kitchen table at midnight helping with homework. I built Acellus because I wanted something better for my kids — and then I realized that every kid deserves the same thing.”

“When I fight for education, I am not fighting for a product. I am not fighting for a company. I am fighting for the same thing every parent in this room is fighting for: a future for our children.”

“Every day a child falls behind, the gap grows wider. Every semester a student is disconnected, the window for reaching them narrows. We do not have the luxury of waiting for the system to fix itself.”

“The bureaucrats who write letters from their offices about programs they have never seen are not going to save these children. The institutions that care more about protecting their market share than educating kids are not going to save them.”

“We are going to save them. And we are going to do it now.”

“Sixty years ago, a teenager in a garage believed that science could change the world. He still believes it.”

“Today I have shown you the tools. Vectored Instruction that finds the hole and fills it. Prism Diagnostics that sees what no teacher can see alone. The Gold Store that makes hard work feel like winning. Gold Spark that puts the power of personalized learning and the irreplaceable value of a great teacher together in the same classroom.”

“These are not ideas on a whiteboard. They are working. Right now. In schools across this country. Changing lives. One student at a time.”

“I started today with a question Pajet Monet asked the Conservation Agent. Now I am going to ask it one last time — not as a joke, not as a story, but as a challenge from one person who loves children to a room full of people who feel the same way.”

“Are you going to fish... or are you just going to talk?”

“Because I am handing you the dynamite. And the fuse is already lit.”