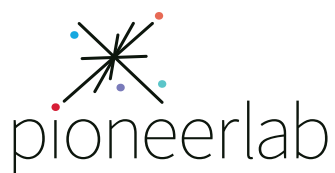




SCHOOL'S OUT

A visualization exercise created by
Amy Anderson, ReSchool Colorado;
Oscar Brinson, Springhouse Community School;
Nate McClennon, Teton Science Schools;
Tom Rooney, Lindsay Unified School District; and
Scott Van Beck, formerly of Houston A+ Challenge.

Written by Alan Gottlieb



Created by Members of Education Reimagined's Pioneer Lab Community.

What should learning look like in the coming years as education adapts to the warp-speed changes to work and society?

THOSE OF US WHO ARE EDUCATORS within traditional education systems wrestle with this question every day. We know we need systemic and structural changes of unprecedented magnitude. Changes that are designed to help children and adults acquire the knowledge, experience, and expertise necessary for a highly interconnected and agile world. As educators, our job is increasingly becoming one that is focused on developing adaptive, nimble thinkers who will thrive in this new age of automation and artificial intelligence, rather than one that is focused on rote memorization and sequential tasks—skills needed for a bygone, industrial era.

As we've engaged in deep conversations on these issues, we've occasionally grown frustrated at how difficult it is to move from the abstract to something more concrete. As we try to envision learning systems that would serve children and adults alike, we find ourselves feeling disoriented. Where are the frames of reference, the precedents to help guide us? What small-scale examples exist today from which we might learn? How do we climb out of the box of the current system and think in new and different ways about what constitutes a meaningful new system of learning?

To completely remove ourselves from the constraints of the current system, we decided to imagine a learning system where school (as we know it today) didn't exist at all. We created visualizations of how two individuals, one young learner—Marco, and one facilitator—Denise, might experience this new system of education. While designing these vignettes, we agreed this new system of learning must produce thoughtful, contributing members of society who can survive and thrive in rapidly changing environments.

The future is murky. But, we can say with confidence, if individuals are to thrive in a world characterized by rapid, perpetual change, they will need learning opportunities customized to their strengths and passions. They will need to be comfortable working in a variety of environments with an ever-shifting set of colleagues who come from many different cultures and backgrounds. And, they will need to have equitable access to educational resources and pathways.

As you read our short vignettes we hope you emerge with a clearer sense of how profoundly we need to alter our perspective on the meaning, feel, and delivery of learning.

As you consider Marco's and Denise's learning journeys, ask yourself three questions:

1. What resources exist in my community that are not being accessed by young learners? Am I one of those resources?
2. When I was a young learner, what interests and passions did I want to explore had there been an opportunity to? What needs to happen today for those opportunities to exist?
3. In my current role within my community, how could I positively impact change in how my community's children are educated? What would I like to be accountable to?

Now meet Marco and Denise!



Marco's Quest

AT AGE 10, Marco could read young adult books for pleasure, identify their main themes, and relate those themes to other works of literature he had read. He could write a neatly crafted, compelling essay comparing and contrasting multiple pieces of writing of different genres. Marco also had a firm grasp of arithmetic and some more advanced mathematical concepts.

Some of Marco's academic learning up to that point had occurred inside a building that closely resembled the elementary schools of the 20th and early 21st centuries. But at least as much occurred elsewhere: at home, the library, the park, a coffee shop. Wherever it occurred, an adult facilitator—sometimes more than one—was present, alternately leading, guiding, and following the small group of students pursuing the same subjects. Who the facilitators were on any given day depended on what the students were exploring and what kind of expertise they needed nearby.

The goal was to ensure that every learner had mastered certain skills and competencies so that it opened the door for more expansive learning opportunities. They could read, write, critique, analyze, compute, and calculate. Once those foundational elements were in place, a world of learning was at their disposal.

Sometimes there were group discussions about a book they all were reading, or current events, or a particularly tricky math problem. At other times each student worked independently, using laptops, tablets, or phones to track down information for a report, or solving a problem, or arranging a solo field trip for an upcoming afternoon.

In addition to this foundational learning, Marco was pursuing several passions developed over the years. One was for the kind of in-the-weeds baseball statistics only a budding sabermetrician could love. And that's how Marco spent his "school day" afternoons: pursuing that passion, independently but with the guiding hand of a variety of educational coaches, mentors, facilitators—different people called the role by different names.

He read exhaustively on the history of baseball. He went online and found gigabytes worth of baseball stats dating back to the early 20th century. He wrote short stories from the perspective of Jackie Robinson, who broke baseball's color barrier, as well as steroid cheaters like Mark McGwire, and notoriously hard-nosed players like Ty Cobb and Pete Rose.

What Marco needed and longed for was some hands-on experience. So that's what Denise, a statistics specialist and Marco's LLF—Lifelong Learning Facilitator—helped him find.

By his 11th birthday, Marco had spent a summer month shadowing the assistant general manager of a minor league baseball team, whose responsibility was compiling and analyzing reams of statistical data about players. Marco already knew the simple stuff, like calculating batting averages for hitters and earned run averages for pitchers.

But now he was learning to go deeper into the arcane world of baseball numbers. He sat behind home plate at a dozen games next to the assistant GM, his facilitator for the internship, and watched as he used a radar gun to track pitch speed, and new data about batted balls—exit velocity, launch angle, and

“barrels.” He studied scouting reports of opposing players and learned about stats he’d never heard of; things like on-base plus slugging percentage (OPS), and wins above replacement (WAR).

By spending so much time around the team, Marco learned a lot about the players as well, and the business of baseball. One player, a 19-year-old Dominican named Luis, started calling him “Baby Einstein,” and the nickname stuck. He collected their autographs and learned which guys to avoid after they’d had a bad game.

He also got to sit, quiet as a mouse, in the executive suite and listen as the assistant GM, his peers and their boss discussed which players to send down to a lower-level team, or to release. He heard them discuss the psychological profile of individual players and the best way and time to deliver bad news based on those profiles.

He had to hide his tears when they decided to demote Luis. He had all the talent he needed but his attitude was bad, they said. He lacked grit, he didn’t believe in himself, and so when he struggled, his funk grew deeper. He needed more seasoning at a lower level. Maybe Luis would be back. But maybe not. It was up to him.

To broaden Marco’s experience beyond this one team, the assistant GM arranged to have him spend a day with the Major League club’s general manager, in a city 1,500 miles away. Seated in his own bedroom, Marco donned augmented reality goggles and was able to shadow the GM, ask him questions, and watch him scout an opposing team.

It wasn’t quite as good as actually being there, but the technology was amazingly good and the experience was first-rate. Marco realized that many learners obtained all or most of their experiences this way. While he was initially skeptical, this experience made him a true believer in the efficacy of augmented reality as a learning tool.

The assistant GM wrote an evaluation of Marco’s internship, which went into an online portfolio maintained jointly by Marco and Denise, his LLF. The evaluation consisted of a detailed questionnaire developed by the educator collaborative to which Denise belonged. During the internship, Marco also submitted evidence to demonstrate that he was competent in advanced math concepts and writing. He also received a high empathy score (the assistant GM noticed those tears).

During Marcos’ internship, Denise had helped him augment his on-the-job learning with practice problems that helped him shore up his weakest areas.

Marco’s passion for baseball never cooled, but over time, his love of statistics rose to the top. As Marco developed his skills in statistics, he was recruited by a firm at 19 to complete contract work in research. As he completed high-level online statistics courses and completed projects for the firm, his competencies began to accumulate in micro-credentials. These micro-credentials, still linked to his early learning experiences, would stay with him for life as he documented continued learning along various pathways.

Meanwhile, Marco kept close track of his favorite baseball player, Luis. Luis had bounced back, in a big way. He was now a superstar centerfielder for a perennially contending Major League team. Marco still had his cell phone number, and they texted occasionally, a source of amazement and envy among Marco’s circle of friends.

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How Denise Adapted

HAD THIS BEEN A DIFFERENT TIME, Denise would have remained a high school advanced math teacher. She loved kids of that age, and she had a gift for explaining complex concepts in a clear, concise way.

But times had changed. More students were leaving the legacy system and learning in the more nimble, hands-on way exemplified by Marco. A couple of Denise's closest colleagues made the leap into an educator collaborative. They raved about the increased autonomy, sense of efficacy, flexibility, and creativity involved in designing and marketing their own classes, working with a diverse group of students—including some Skyping in from other countries—and helping students in a one-on-one environment discover their passions and go deep in their learning.

The educators also loved the collegiality of the collaborative, and how the educators learned from one another, and grappled together with the tough questions that always accompany the start of a new enterprise. In this way they mirrored the cooperative learning aspects of the student experience in this new paradigm.

It took Denise a while to work up the nerve to leap into the unknown. But the future of the current system seemed increasingly in doubt. So she dipped a toe in the water and designed an immersive statistics course that satisfied competencies in math, big data analysis, and leadership. It included one session taught by her husband, the assistant baseball team GM.

Within a week, 15 students had enrolled, including Marco. Denise did some back-of-the-envelope calculations and realized that if she spent roughly the same amount of time preparing and facilitating (what she did involved much more than what used to be called teaching), as did prepping and teaching at the high school, she could make 50 percent more annually than she had as a district school teacher.

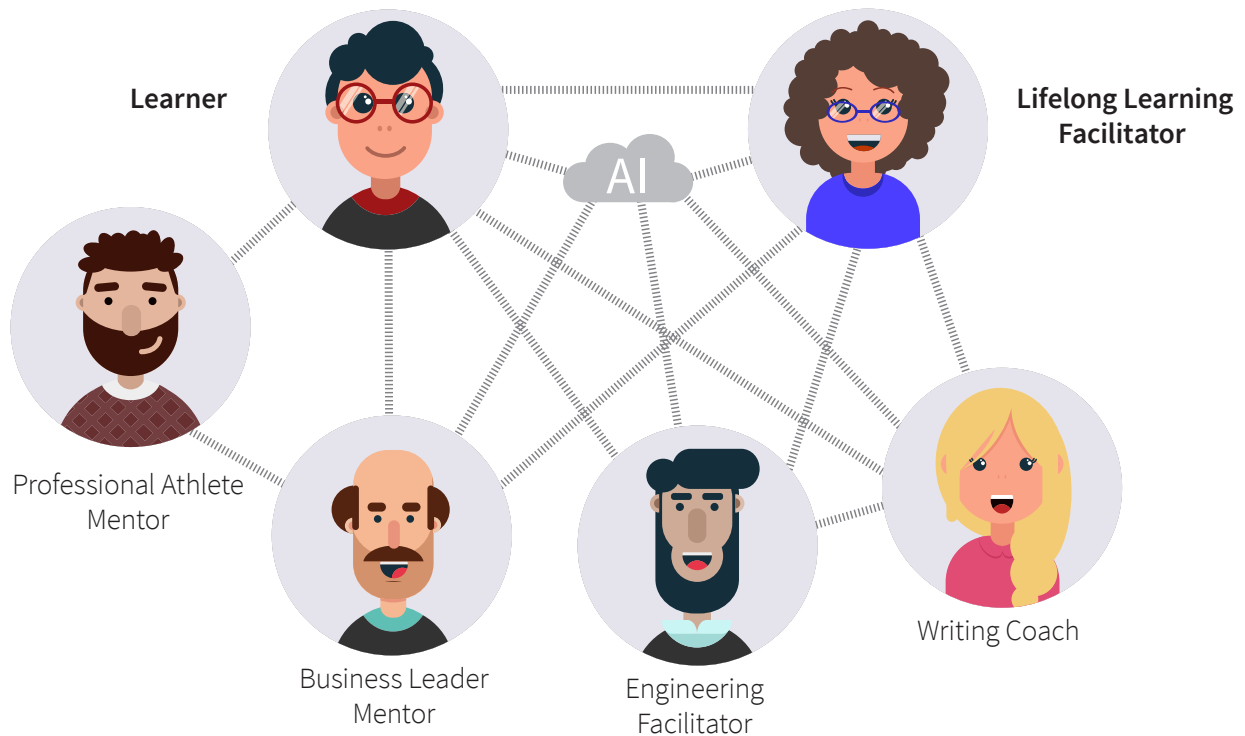
Denise now realized she wouldn't have it any other way. Instead of showing up for work at a school every day, and standing in front of a group of 30-plus adolescents, she was helping kids learn in new and exciting ways. She worked with handpicked colleagues as excited as she was by these new opportunities.

It was stressful sometimes, because Denise had to keep hustling to find work. It was hard to keep track of all the apps she needed to post her qualifications to in order to attract students who were seeking her kind of expertise. Her connections to more than a dozen companies and nonprofit organizations that could offer micro-credentials was one big selling point. So was her 4.9 (on a scale of 5) rating from her young clients on the learner feedback system.

And the collaborative she was part of was helpful as well. When James, an engineering facilitator, heard from a learner that she needed some help with statistics, he would refer the learner to Denise.

Every day was different. Some days Denise engaged in video chats and lessons with students across the country, and even from other countries. Other days she met a small group at a learning center, formerly a school building, to go over a particularly thorny concept. And she also worked one-on-one with a dozen

A NETWORK OF RELATIONSHIPS, SUPPORT, AND ASSISTANCE



students, some who, like Marco, were ready to learn at an accelerated pace and benefited greatly from the individual attention, and others who struggled with certain concepts and needed the intensive, customized assistance Denise could provide.

On top of this, Denise acted as a LLF for Marco and five other students she'd known since they were six. She helped arrange learning experiences for them, based on their interests and needs. She tracked their progress, kept their portfolios updated, met with their parents, intervened with internship facilitators when problems arose.

She was as busy as she wanted to be, and despite the stresses that go along with being an independent contractor, she couldn't imagine going back to the old way. Each student paid her, using the per pupil funds allocated to them through what had once been their school district, and was now a coordination center.

And best of all, she encountered fewer disengaged students than she had under the cookie-cutter legacy system. Not all students had a finely honed passion to pursue, but most found the combination of hands-on learning and book study to be complementary and engaging.

Everyone benefited.

WHAT DOES THIS SYSTEM OF EDUCATION MAKE POSSIBLE?

FROM MARCO'S VIEWPOINT	FROM DENISE'S VIEWPOINT
Freedom and Independence	Freedom and Independence
Discovery and Explorations of Passions	Fulfilling Purpose Driven Work
Mentors that Build Social Capital	Support from a Network of Peers
Deeper Connections to His Community	Deeper Connections to Her Community
Responsibility and Ownership of His Learning	Work Life Balance
A Pathway to Fulfilling His Purpose	Financially Rewarding

What else might you add?

Final Thoughts

THE WORLD HAS MOVED ON from the industrial model of employment, under which millions of people could work factory jobs and earn a solid middle-class wage. Today we're in the early stages of what some are calling the fourth industrial revolution, which increasingly will be driven by automation and artificial intelligence.

Our legacy education systems were not designed for the age we're just entering, and it's unrealistic to expect them to reinvent themselves to the extent required. We need to reorient our thinking about how people of all ages learn, what they learn, and where they learn.

Education will not be a commodity that people acquire by attending school for 12, 16, or 20-plus years. Increasingly, it will be a lifelong endeavor. People of all ages and education levels will need to continue their educations for as long as they plan to work.

We believe that this learner-centered future must begin now. The purpose of this new system must be to efficiently connect each learner with the content, experiences, mentors, and other resources that facilitate personalized growth. This new way of learning and organizing our system is in the best interest of our kids, our educators, and our society.

Pioneer Lab Community, an initiative of Education Reimagined, exists to gather, connect, and ignite the leadership of learner-centered pioneers as they demonstrate to the nation that learner-centered education can successfully address the most pressing education challenges facing our country: 1) Enabling every single learner, regardless of background or circumstance, to reach their full potential; and 2) Preparing each young person to thrive in the 21st century as self-directed, lifelong learners. This report was created by members of the Pioneer Lab Community.

School's Out Team



Amy Anderson, Executive Director, ReSchool Colorado

Amy leads ReSchool Colorado's discovery-driven process to create a more expansive, equitable, and accessible education system with, and for, learners across Colorado. Prior to launching ReSchool, Amy was Associate Commissioner at the Colorado Department of Education and Director of Strategic Partnerships at the Donnell-Kay Foundation. She also led new school development at the Colorado League of Charter Schools and is a founder of The Odyssey School, a Denver charter school started in 1998 where she served on the board for several years and both of her children attended. She currently serves on the board of directors of iNACOL.



Oscar Brinson, Computer Systems Engineer

Oscar served some 25 years in a variety of technology, leadership and development roles for K12 and Higher Education. In a period of historic technological advancement and adoption within education, he has guided schools through this era of monumental change in institutional identity, curriculum, and infrastructure. Oscar is a Board Member of Springhouse Community School, Floyd, VA and now provides IT consulting services to K12 community schools and not-for-profits in rural Appalachia, leveraging technology as a window-on-the-world where resources are few and travel is challenging.



Nate McClennen, Vice President of Education and Innovation, Teton Science Schools, WY

In 2015, Nate became the Director of Education and Innovation to focus on how to scale the impact of Teton Science Schools through technology, innovation, design learning, and school networks. Nate has been part of the leadership team at Teton Science Schools since 2011 and was a founding faculty and head of school at Journeys School from 2001-2015. Since 1993, he has taught science and math at the secondary level and science at university level. His current project is Place Network, a next-generation, place-based, learner-centered school network focused on rural communities.



Tom Rooney, Superintendent of Lindsay Unified School District, Lindsay, CA

Tom has engaged in the system-wide transformative work of building a learner-centered Performance Based System throughout the entire K-12 learning community, in which each of the 4,100 Lindsay learners receive a customized learning experience. Beyond the Lindsay Unified School District, Mr. Rooney has become a nationally recognized voice for all matters related to customized learning, competency-based learning, and future-focused transformation. Mr. Rooney has co-authored the book, *Beyond Reform*. He serves on the Board of Directors for iNACOL, is a founding member of the Mass Customized Learning National Alliance, and is a member of the League of Innovative Schools. Mr. Rooney is also a certified trainer and professional coach with *The Breakthrough Coach*.



Scott Van Beck, former Executive Director, Houston A+ Challenge, Houston, TX

Scott A. Van Beck recently moved to Montpelier, Vermont, but continues a journey to provide better learning for America's kids. Before Vermont, Scott served 10 years as the executive director of Houston A+ Challenge, an educational non-profit committed to improving the public school experience for Houston's children. It was there that Scott and his team piloted A+UP, a personalized learning lab school that offered three years of learning for 50 young teenagers. The story of expanding A+UP from 50 to 500 learners, and moving from privately-funded to state charter, continues to be one of challenge and struggle. Before leading Houston A+ Challenge, Scott worked 25 years as a teacher, principal, and region superintendent in the Houston Independent School District. Today, Scott's passion is School's Out, a small but determined group of learning designers who are asking the question can there be more learning available to kids beyond what our current school system structure is providing?



Alan Gottlieb, writer

Alan is a Colorado-based writer, editor, journalist, and nonprofit entrepreneur, with more than 20 years of experience in education policy and education journalism. Currently, Alan is owner of Write.Edit.Think, LLC, an independent communications consulting firm. Alan co-founded *Chalkbeat*, a growing national news nonprofit focused on PreK-12 education policy, policy implementation, and practice. Alan won a 2015 Heartland Emmy award as a writer and producer of the Rocky Mountain PBS documentary series "Standing in the Gap," which examined Denver Public Schools' record on integration and closing achievement gap since court-ordered busing ended 20 years ago. From 1988-97, Alan was a reporter and editor with *The Denver Post*. From 1997 until June 2007, he served as education program officer at The Piton Foundation in Denver.

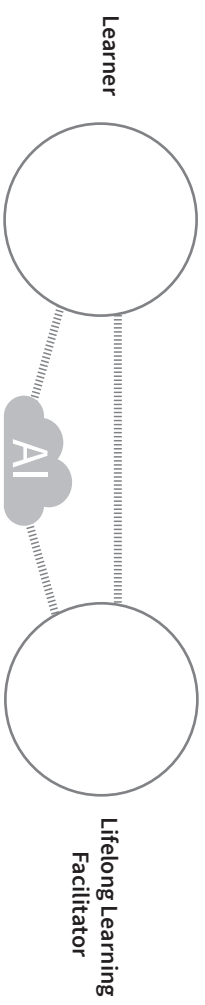
SCHOOL'S OUT NETWORK GENERATOR WORKSHEET

Use this worksheet to generate a network of relationships, support, and assistance for a learner that you know.

Interview a learner asking them questions to discover what their interests are, who they have strong relationships with, what they consider their strengths to be, and what they are challenged by.

Then together, map out who might be key actors in their educational future. Assume they will have a Lifelong Learning Facilitator.

Who do you know in your community who might match up with their interests and passions? What current out of school organizations and institutions might make a contribution to this young person's education?



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