

"Offers a plan of action for what education needs to become,
to prepare our children for a future none of us can predict."

—SIR KEN ROBINSON

A GUIDE FOR ADMINISTRATORS, TEACHERS, PARENTS, AND COMMUNITY LEADERS

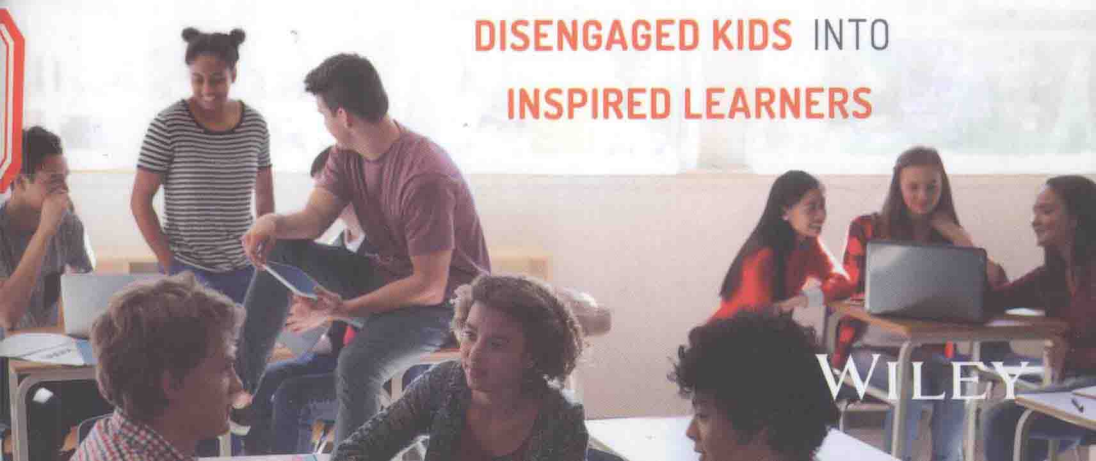
REX MILLER

BILL LATHAM · BRIAN CAHILL

humanizing — THE — EDUCATION MACHINE

HOW TO CREATE SCHOOLS THAT TURN

DISENGAGED KIDS INTO
INSPIRED LEARNERS



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FOREWORD

People don't care how much you know until they know how much you care.

—Theodore Roosevelt

I dare you to . . .

Buck the System. I chair the nonprofit Center for College & Career Readiness, working with hundreds of districts and thousands of schools across America and around the world. Every day, my team and I hear tales of these teachers—committed and caring professionals *who buck the system to save a child*. These brave souls often work against the systems that employ them in order to do their jobs—to meet the needs of real kids, in real classrooms.

Bridge the Gap. The Education Machine can see only a few “standard models,” but great teachers care for the kids as if they were their own family members. The Education Machine believes scientific application of generic teaching principals will “engage” students to “learn rigorous content.” You and I know that all of us are motivated by our imaginations, interests, and passions. Learning is human. The modern Education Machine is not. And we must bridge that gap—now!

This book raises a clarion call to a revolution of the heart and mind. Furthermore, Rex Miller and his intrepid team of educators, parents, and experts provide a vision of education with real children at its heart.

Embrace a New World. Grounded in the real trials and success stories of teachers and kids from around the country, Miller and his colleagues challenge us to set aside notions from the obsolete world of the textbook. In their place they call us to embrace a new world—a new culture—of dynamic learning and collaborative investigation. Miller

shines a light on those educators who are challenging the system and lifting up the imaginations and passions of children—kids who live in a world of endless possibility constrained by schools with mindless rules and never-ending assessments.

Turn Insight into Action. Researchers collapse human experience into statistics and findings. But we do not need another research project as much as we need to act! We must—as human beings—do something to equip and empower our kids and the teachers who care about their dreams, their fears, and their futures.

Use This Map. We all need—and you now hold—a map that will lead you from the Industrial Age model of education to a culture of creative collaboration. More importantly, that map will get you and many others to the place where we can all join in uplifting the hearts and minds of teachers and students.

That is why, upon its publication, *Humanizing the Education Machine* will become required reading in my graduate courses for school leaders.

—Kevin E. Baird,
chairman and national supervising faculty,
the nonprofit Center for College & Career Readiness

FOREWORD

We all know that excellent schools are the glittering diamonds of outstanding communities. They not only educate the young, but also help to build the symmetrical beauty of a community's physical and emotional safety, employment opportunity, rich cultural treasury, responsible governance, civic involvement, and more.

Unfortunately, we have too few outstanding schools, that is, schools in which teachers and learners are actively engaged in the exchange and mastery of knowledge. Yet we continue to support an educational system built on a failing business model.

An education system built around Industrial-Revolution-era ideas about conformity, interchangeable parts, hierarchy, strategy, centralization, and economies of scale no longer works in our time. We've all read the axiom, "Every system is perfectly designed to produce the results it achieves." And our education business model is perfectly designed to produce nineteenth- and twentieth-century results.

But, of course, education should mirror twenty-first-century business realities! In other words they should reflect a wellness culture, intrinsic versus extrinsic values, fulfilling needs instead of creating wants, open communication platforms, Lean structures, niche markets, responsible sustainability, and rapid iterations of our products, services, and even ourselves.

Over two years ago, Paragon Furniture, Inc., was invited to participate in an extraordinary cohort of education stakeholders. The K-12 MindShift served as the locus for changing the way in which Paragon began thinking about our purpose. We now see that our company creates furniture that assists in the transformation of culture, helps to ignite student curiosity, facilitates positive teacher influence, and contributes to the health of the whole person.

Humanizing the Education Machine is like a perfectly built and tuned amplifier. It pumps out a pure, rich, and powerful message. However, our educational system is tone deaf to the music. But, with our front row seats on the concert of collaborative research and synthesis behind this book, we were blown away by the power of the book's signal transmission and broad range frequency.

Rex has created a high-fidelity story that everybody in any community should know and share. In that way, we can all help to create a relevant and rich learning culture. And remember, however great the costs of change may be, it is far more expensive not to change.

—Ricky Kassanoff, CEO,

and

Mark Hubbard,
President, Paragon Furniture, Inc.

FOREWORD

Data from our K–12 schools in the United States sadly reminds us that, despite decades of well-intentioned education reform efforts, student achievement remains stagnant in America. Over 30 percent of our nation's youth fail to graduate from high school and approximately half of African American and Hispanic students fail to earn a high school diploma. Data also shows that students who do graduate are largely unprepared to enter the work force.

How is it possible that the greatest and most powerful nation in the history of the world built an education system that is now so ineffective, especially when compared to other developed nations?

As the CEO of one of the largest architectural practices in the United States that specializes in educational facility design, I've spent the past 35 years working with educators and students to create environments that facilitate all the activities associated with knowledge transfer. In twenty-first-century terms, what are those activities? How do children learn best in today's world? Is there a new knowledge-transfer paradigm that will lead us out of the doldrums of mediocrity? As a long-time admirer, I was thrilled when I learned that Rex Miller, one of the most successful and compelling research based futurists in the nation, would be exploring the very basic but very complex issue of education and knowledge transfer.

As evidenced by his previous books and now in *Humanizing the Education Machine*, Rex has an uncanny ability to assemble and lead the right people in the right manner and shed light on some of the most important and complicated issues of our time.

To tackle K–12 education, Rex assembled some of the nation's best educators, teachers, government representatives, architects, contractors and furnishing and environmental specialists. The result of two years of

work is this wonderful expose of some of the most amazing education success stories you've ever read.

Humanizing the Education Machine is a lively read that immediately grabs our attention and doesn't let go. The stories are fun and the message provides a fresh way of thinking about education. The book gives a road map of the paths to personal learning experiences that engage our students and inspire them to learn.

After decades of propping up an outdated model, isn't it time for our schools to do better? Shouldn't they reflect the human principles we hold most dear—the ability to be an individual in every sense, including the way we learn? Isn't it our real goal to create a student body in this country that consists of self-motivated and enthusiastic lifelong learners who follow a path that is most appropriate and fulfilling for each individual?

This book is amazingly powerful in its ability to help us achieve that goal.

—Dan Boggio, CEO,
PBK Architects, Inc.

FOREWORD

Like so many others, I grew up struggling in traditional classroom environments. Having been diagnosed with ADD as an adult, I finally understood some of my challenges with traditional education in a small-town public school. Physically, classrooms represented a tense place for students like me. Unfortunately, they continue to be the same for many students today.

Classrooms of multiple rows of desks and chairs all facing a single plain chalkboard give energetic children no physical outlets for their natural energy. That layout increases distractions and disengagement. In that built environment, the students who live and work at the behavioral extremes are often underserved, their talent unrecognized and their possibilities undeveloped. Our genuine efforts to leave no child behind leaves a sad wake of unrealized talent and unfulfilled dreams because we fail to engage our kids.

Fortunately, Lorraine Moore, my mother, passed on her passion for education to me. She always reminded me that we had both an opportunity and a responsibility to make a difference for the children of this country. That idea and her drive gave me the opportunity and confidence to turn my experience into doing that—I have found great satisfaction working to make a difference by giving all students the right spaces, tools, and advocates.

MooreCo was invited to join MindShift so that we could lend our industry experience to this wide-ranging assembly of education (and other) professionals. We have all worked to understand the past, current, and future of education. And I am proud of how our eye-opening

experiences are so well reflected in *Humanizing the Education Machine*. The book gives a compelling contrast to the current and outdated education model. Readers will clearly see a better path to how we train and equip our kids for the future.

—Gregory Moore, CEO,
MooreCO, Inc.

FOREWORD

We've all heard the sobering data documenting our schools' failure to meet the needs of today's students and employers. We at Bretford see that the real issue behind that failure is a design problem: Our schools continue to function very much as they did a century ago.

But, of course, the challenge facing educators has changed dramatically over that period. The skills that will define students' future success have changed. And students themselves have changed: They're simply and verifiably wired differently from previous generations.

According to the National Association of Colleges and Employers, working well as a team is what today's companies seek and value most in their workforces. But students won't have a chance to learn to collaborate until we see dramatic changes in the design of our K–12 classrooms and teaching practices.

In leading a company that manufactures furniture to support more active, engaging, and collaborative learning environments, I've seen firsthand how the design of learning spaces transforms the activities and outcomes that occur there. And I'm deeply encouraged that futurist Rex Miller has chosen to explore this topic in his new book.

Humanizing the Education Machine provides stories and strategies that give inspiring alternatives to the status quo. This book reveals the approaches that are working for *all* students, enabling us to see what's possible if we have the courage to chart a new course for K–12 education.

The changes presented in these changes are desperately needed. I commend Rex for taking on this subject. We at Bretford are committed to supporting K–12 leaders and students in this critical journey.

—Chris Petrick, CEO,
Bretford

PREFACE

As you read the pages ahead, you will see that *change* is the backdrop issue in this book. Of course, change is the real issue in so much of life. That's why wise people learn to relate to change in intelligent and appropriate ways.

My friend Dan Boggio, is the founder and CEO of PBK Architects, Inc., the largest architectural firm for educational facilities in the United States. Dan also served on the MindShift K–12 project that drove this book.

After 40 years of working with various levels of government, school boards, and other bureaucracies, Dan understands the dynamics of change. When he recently told me his view of why school districts continue to build facilities that are a half-century behind the times, he exposed the true face of change.

"Because school districts are bureaucracies, they are always subject to the political pressures that shape any city. Elected officials always strive to make sure that everyone feels treated equally. So to approve a new, progressive, learning-friendly environment is to invite opposition."

Secondly, Dan told me, "Most senior administrators—the decision makers—are in the final phase of their careers. So they are not inclined to be trailblazers. Retirement is coming up fast. Playing it safe and avoiding controversy are very important in that time of life. They all know that the 'cutting edge' is also the 'bleeding edge.'"

And, third, as Dan said, "Most senior administrators are generally from a generation that was trained in the old 'factory model' school environment. They do not understand or trust the new thinking."

However, the good news is that change is coming faster than some think. Dan reports that, even though most of PBK's work still supports the factory model, ". . . about 20 percent of our work is what I consider

progressive.” Dan also sees that, as younger people (including digital natives) move into the senior executive roles, they are turning the tide toward learning-friendly design.

We’re all joining a battle that has raged a very long time. So it’s helpful to hear from a seasoned veteran who has been out on the front lines of change. The past always fights with bloody tenacity to remain. We all have to see it, understand it, and deal with it as we work for change.

But, Dan’s view also delivers good news for change agents. New blood has already entered into the cultural veins. For example, digital natives are already bringing renewal, renovation, and a bright future. The past views them as a threat. And rightly so; after all, they are forerunners of a new day.

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CHAPTER 1

Numbers Don't Lie

*You never change things by fighting the existing reality.
To change something, build a new model that makes the existing model
obsolete.*

—R. Buckminster Fuller

Did you know that 70 percent of teachers have mentally checked out of teaching? How is that possible? These are not bad people. They all started out inspired, hopeful, courageous, and even playful. Some of our best novels and films—such as *Dangerous Minds*, *Stand and Deliver*, *Lean on Me*, *Up the Down Staircase*, and *Goodbye, Mr. Chips*—have featured these noble, exciting, and often daring figures.

But after a while, the Education Machine just rolled over too many teachers, mashing the life juices right out of their pores.

I'll tell you something else—by the time they graduate 60 percent of students will have also flown the coop. This is not some abstract number: these are the kids on your block, next door, and maybe in your upstairs bedrooms.

We all know that we live in perilous times. But, more than that, we live in the crumbling ruins of obsolete forms. An age is passing

away (as ages always do). Don Berwick famously said, “Every system is perfectly designed to get the results it gets.” The prevalent model of public education does what it was designed to do. And in a previous era,

*Public education does what it was
designed to do. And in a previous
era, that served America very well.*

*With the passing of that era the
model has become obsolete.*
